



Transient Public Water System Guide



***A guide to help transient public water systems
comply with Ohio EPA rules and regulations***

Division of Drinking and Ground Waters
July 2018

Why did I receive this guide?

As a transient public water system (PWS), you must fulfill certain requirements. This document provides information about how to meet Ohio Environmental Protection Agency (Ohio EPA) requirements and should be saved for future reference. 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.

What is a transient public water system?

A transient PWS is a water system that regularly serves an average of at least 25 people daily for at least 60 days out of the year. This includes water used for drinking, hand washing, food preparation, bathing, showering, tooth brushing or dishwashing. Typical examples of transient PWSs include campgrounds, gas stations, rest areas, hotels, restaurants and churches.

Table of Contents

Why did I receive this guide?	1
What is a transient public water system?	1
Main Requirements of a Transient Public Water System	2
Monitoring Requirements	3
How do I arrange to have my water tested?	4
Total Coliform Bacteria	5
Nitrate and Nitrite	6
Public Notification	6
Preventing Contamination	7
License to Operate	8
Asset Management	8
Class A Certified Operator	9
Detail Plans	9
Change of Ownership	9
Change of Ownership Notification Form	10
Ohio EPA Contact Information	11

Main Requirements of a Transient Public Water System

The following list outlines routine requirements for transient PWSs. The list is not all inclusive but does highlight standard Ohio EPA requirements. More detail is included in specific sections of this guide. If the PWS uses a surface water source, please contact your district office for additional requirements.

Total Coliform Bacteria Monitoring

All PWSs must monitor for total coliform bacteria. Positive total coliform sample results may trigger a Level 1 or Level 2 Assessment. An *E. coli* maximum contaminant level (MCL) violation triggers a Level 2 Assessment. Assessments are conducted to identify and fix the cause(s) of the contamination. Transient PWSs must monitor for total coliform bacteria at least once every calendar quarter or monthly if the system is determined to operate as a seasonal facility.

Nitrate and Nitrite Monitoring

All PWSs must monitor for nitrate and nitrite to determine compliance with MCLs. Transient PWSs must monitor for nitrate at least annually and nitrite at least once every nine years, in accordance with the annual monitoring schedule issued by the director of Ohio EPA.

License to Operate

PWSs must obtain a license to operate a PWS from Ohio EPA. Churches, church-owned campgrounds used exclusively for church members and K – 12 schools (not daycares) are exempt from this requirement.

Class A Certified Operator

Transient PWSs which serve a population of more than 250 and use a ground water source are classified as Class A water systems and must be under the responsible charge of a properly certified operator.

Detail Plans

Detail plans must be submitted to Ohio EPA for review and approval before making any substantial change to a PWS. Contact your district office inspector to determine if the desired change requires plans.

Seasonal System Start-up and Shut-down Procedure

Depressurized and partially depressurized seasonal PWSs must complete the *Seasonal Public Water System Start-up Requirements and Checklist* every year before their primary operating season. PWS owners should contact their district office or visit epa.ohio.gov/portals/28/documents/pws/seasonal_checklist.pdf for the procedure.

Monitoring Requirements

Transient PWSs must 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 detailed on the annual compliance monitoring schedules provided by Ohio EPA are met within the required time frame.

Where do I collect the samples?

Total coliform bacteria samples should be taken from the distribution system, according to the sample siting plan. The seasonal system plan template is available at epa.ohio.gov/ddagw/rtrcr.aspx. Systems open year-round can find their total coliform sample plan template at epa.ohio.gov/ddagw/rtrcr.aspx#175645034-all-other-systems. 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 system (the first available tap after treatment). The appropriate SMP is the EP00# listed on your monitoring schedule (typically EP001).

Note: The following are the minimum requirements for transient PWSs using a ground water source and serving a population less than 1,000. Transient PWSs that operate seasonally, use a surface water source, and/or serve a population greater than 1,000 should consult their district office for PWS specific requirements.

Contaminant	Ground Water System	Sample Tap	Sample Monitoring Point (SMP) Code
Total Coliform Bacteria	One sample each calendar quarter	Collect sample from the distribution system according to your sample siting plan	DS000
Nitrate	One sample per year (as scheduled)	Collect sample from the entry point to the distribution system (first tap after any treatment)	EP00# (listed on your schedule – typically EP001)
Nitrite	One sample every nine years (as scheduled)	Collect sample from the entry point to the distribution system (first tap after any treatment)	EP00# (listed on your schedule – typically EP001)

What if I only operate part of the year?

- Seasonal PWSs must notify their Ohio EPA district office of the facility’s operating season.
- Transient PWSs must monitor according to the schedule issued by Ohio EPA for every monitoring period, or partial monitoring period, that anyone has access to the water. This includes the “off” season, if the water system is still providing water to any person.
- The only time monitoring is not required in a monitoring period is if no one has access to the water, or the system is completely closed and depressurized during the entire monitoring period. If your water system is open for more than one day in a monitoring period, you must sample as scheduled.

Administrative Penalty Program

Failing to sample for total coliform bacteria or nitrate during the required monitoring period will result in penalties of \$150 or more for each monitoring violation. Failing to monitor drinking water creates uncertainty about the quality of water being served to customers. Don't put consumers, or your water system, at risk. Sample on time. For more information about the Administrative Penalty Program, see the fact sheet at epa.ohio.gov/Portals/28/documents/enforcement/AdminPenaltyProgram/saveadimeFAQs.pdf

How do I arrange to have my water tested?

Ohio EPA's Division of Environmental Services (DES), certifies laboratories to run specific analyses for drinking water parameters. You must use an Ohio EPA certified laboratory for the required tests or the results will not be accepted and your PWS will receive a monitoring violation. A list of certified laboratories can be found at epa.ohio.gov/ddagw/labcert.aspx. If you want a list of certified laboratories mailed, faxed or emailed to you, contact our office at (614) 644-2752.

Collecting the Sample

Your certified drinking water laboratory will send you a sampling kit which should include any sample bottles needed, instructions and any preservatives that may be required. If you have questions about how to collect your sample, call your certified laboratory for assistance. Total coliform samples are collected in the distribution system at the location designated in your sample siting plan. A video explaining how to collect a total coliform sample can be found at youtu.be/IPDXtHeh6pQ. Collect nitrate and nitrite samples at the entry point to your system — the first tap after treatment.

Complete and Accurate Information

To be sure that your results are sent to Ohio EPA, tell the laboratory that you are a PWS. 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. If you need a copy of your monitoring schedule, you can find it online at epa.ohio.gov/ddagw/pws.aspx#129177381-current-monitoring-schedules or call (614) 644-2752.

You must provide the laboratory with the following information to report results to Ohio EPA.

- PWS name, address, PWS identification number (PWS ID).
- Sample collection date and time, sample collector.
- Sample class (usually routine), sample monitoring point (see your monitoring schedule or the table above), tap address and description of where the sample was collected (for example, bathroom sink, kitchen sink, etc.).
- A phone number where you can be reached.

Electronic Drinking Water Reports (eDWR)

Certified laboratories must submit PWS drinking water data to the Division of Drinking and Ground Waters using electronic Drinking Water Reports (eDWR). Laboratory reporting in eDWR is split between two forms: microbiological (total coliform) reports and chemical analysis reports.

Keep Copies of All Test Results in an Accessible File

You, the owner of the PWS, are responsible for making sure that the required testing is done. The laboratory should send you a copy of your results. If you do not receive this report, contact the laboratory to be sure the results were sent to Ohio EPA and request a copy. Keep copies of all test results for a minimum of 10 years.

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 must further test for *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, the elderly and people with severely compromised immune systems.

How to Avoid Contaminating Samples During Collection

- Carefully follow the instructions provided by the laboratory.
- Avoid taps with a leak at the stem.
- Avoid faucets that swivel.
- Avoid faucets with cold/hot mixing valves.
- Avoid faucets with long stems (goose necks).
- Wash hands thoroughly before collection.
- Remove aerators or screens before collection.
- Sanitize tap for at least two minutes. Use a bleach solution (e.g. 1 tablespoon of unscented household bleach in ½ gallon of water) and place the solution in a spray bottle to spray the tap or place the solution in a baggie and flush the tap nozzle by submerging the tap into the baggie and squeeze the solution up into the nozzle several times. The faucet nozzle should remain wet with the bleach solution for 2 minutes to sanitize the tap.
- Flush tap for at least five minutes, turning down (not off) prior to filling the sample bottle.
- Be careful not to touch the inside of the 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 (TC+) means coliform bacteria are present. TC negative (TC-) means coliform bacteria are absent. Take the following steps if a routine sample result is TC+.

- **Contact your Ohio EPA district office immediately.**
- **Collect three repeat samples for each TC+ routine sample within 24 hours** of being notified of a TC+ result, consulting 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 them. Results of all repeat samples must be reported to Ohio EPA by the end of the next business day following analysis.
- **Collect at least one source sample within 24 hours** of being notified of a TC+ result if your water system treats the water with anything more than a pressure tank, softener and/or cartridge filter, in accordance with the Ground Water Rule, OAC Rule 3745-81-42.
 - *NOTE: If you have minimal treatment, the three repeat samples may be used to represent source water for the Ground Water Rule.
- The lab will test the routine positive and any positive repeat samples for *E. coli* bacteria.
- If any repeat samples are TC+, the Ohio EPA district office inspector will contact you to complete an assessment of your water system.

- **Collect three temporary routine samples in the month following** the routine TC+ sample if you are on quarterly monitoring. Water systems on monthly monitoring for TC can resume collecting samples according to their monitoring schedule the month following a TC+ routine.

An acute *E. coli* MCL violation occurs if any **repeat** sample is positive for *E. coli* or is positive for total coliform following a routine sample that was positive for *E. coli*. A Level 2 assessment will also be triggered, requiring that an investigation be conducted to find and eliminate the cause of the contamination. A boil order must be issued as soon as possible, but no later than 24 hours, after the violation and continue until corrective action has been completed and a set of three repeat samples are TC-.

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 tap water with nitrate or nitrite in excess of the MCL, but women who are pregnant or nursing, or persons with specific health conditions may wish to consult their doctor. For more information, review these fact sheets:

odh.ohio.gov/-/media/ODH/ASSETS/Files/eh/Chemical-Fact-sheets/022-Nitrates-Nitrites-rev-2.pdf?la=en and epa.ohio.gov/portals/28/documents/pws/Nitrate_in_Public_Drinking_Water.pdf.

What happens if I have a high nitrate or nitrite result?

The Maximum Contaminant Level (MCL) for nitrate is 10 mg/L and the MCL for nitrite is 1 mg/L. If a sample result is greater than 10 mg/L for nitrate or greater than 1 mg/L for nitrite:

- Contact Ohio EPA's 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 immediately and collect a sample as soon as possible, but no later than two weeks after notification. Ohio EPA can provide you with the required public notice language and template.
- Results of the initial sample and the confirmation sample are averaged to determine if an MCL has been exceeded. If the confirmation sample is not collected, the MCL violation is confirmed with a single sample.

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

Public Notification

A transient PWS must issue a public notice if an 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 *E. coli* 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. If your PWS is seasonal, and you receive a violation that requires public notification during the time period that your water system is not open, you will be required to issue public notification when your PWS reopens the following season.

Public notices should be issued to reach all persons served using one or both of these methods.

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

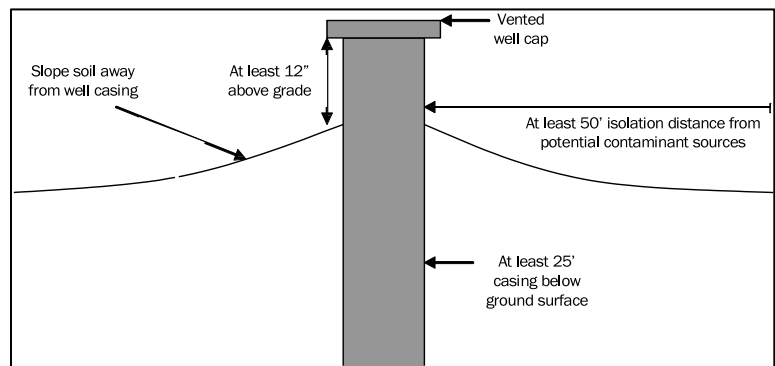
Additional requirements for public notification of MCL violations may be established during consultation with Ohio EPA.

If you are required to issue a public notice for a violation, Ohio EPA will send a sample public notice and verification form. If you choose to alter any of the standard language, you must submit the changes to Ohio EPA for approval prior to issuance. You must send a copy of the public notice and completed verification form to the correct Ohio EPA representative to receive credit for issuing public notification for the incurred violation.

Preventing Contamination

To prevent contamination, your water system should follow the guidelines below.

- Maintain isolation distance of at least 50 feet between well(s) and potential sources of contamination.
- Provide a secure and intact well cap with a screened vent; a locking well cap is recommended. Caps must conform with *Water System Council Pitless Adapter Standard PWS-97*.
- Extend well casing to at least 12 inches above grade.
- Slope soil surface away from the well to drain surface runoff away from well.
- A well must 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 or lawn equipment damage.
- Disinfect drinking water wells only after repairs or modifications.
- Have the well tested as directed for total coliform bacteria, nitrate, nitrite and any other contaminants 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, medication or abandonment and closure.
- Properly abandon and seal 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 non-potable liquid.
 - Boilers such as heating units.
 - Many hand-held pesticide or herbicide applicators.
 - In-ground lawn irrigation systems.
 - Connections with unapproved, abandoned or non-potable wells.



*Example of a cross connection:
hose in dirty water.*



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

License to Operate

All transient PWSs (except churches, church-owned campgrounds used exclusively for church members, and approved K-12 schools) must obtain a license to operate from Ohio EPA every year. Updated applications and payments are due to Ohio EPA by January 1. The cost of the license is based on the number of active wells and designation of the sources of water. A ten percent (10%) late fee will be assessed if the application and payment are not received on time. All correspondence will be sent to the fiscal contact. Please ensure that Ohio EPA always has the current fiscal contact information to avoid fees and penalties caused by late payment.



Asset Management

A water system should be servicing assets frequently enough that assets are doing what they are meant to, without spending more time or money than is necessary to achieve those results. Senate Bill 2 requires that all public water systems have an asset management program in place by Oct. 1, 2018. A successful asset management program should cut down on the number of service disruptions due to lack of maintenance and planning. Transient non-communities can use the non-community template located on Ohio EPA's webpage for their asset management program.

The template and additional resources can be found at: epa.ohio.gov/ddagw/pws.aspx#113435168-asset-management.

Class A Certified Operator

Ohio EPA classifies transient PWSs based on size of population served, source of water and complexity of treatment. Transient PWSs which serve a daily population greater than 250 and use only ground water or purchased water sources are generally classified as Class A systems. Treatment for contaminants (arsenic, nitrate and manganese) and 4-log removal of viruses would make a facility a Class 1 system. Transient PWSs that use ground water and do not treat for contaminants are not classified.

To become a Class A certified operator, applicants must pass an examination and demonstrate a minimum amount of public water system experience. Experience is not necessary to take the exam, but the applicant must have a high school diploma or the equivalent. Personnel seeking certification may take either the pencil examination, which is given twice a year, or an examination through Ohio EPA's approved examination provider. Those exams are offered at least five days per week at several locations throughout the state. Free Class A training is available on Ohio EPA's certification website. Visit epa.ohio.gov/ddagw/opcert.aspx for more information.

Detail Plans

PWSs must obtain Ohio EPA approval of detail plans before beginning construction or installation of a PWS, or making a substantial change to the existing PWS, such as adding a new well or new treatment process. A transient PWS interested in making a change to their system should submit plans to the Ohio EPA district office and/or call the district office for assistance prior to purchasing or leasing equipment or drilling a new well.

Change of Ownership

If the ownership of your transient PWS has changed, or will change soon, please fill out the form on the next page and mail it to your Ohio EPA district office. A district map, along with address and phone numbers, is provided at the end of this document and available online at epa.ohio.gov/districts.aspx.

More Information

For more information about transient PWS requirements and assistance meeting Ohio EPA's rules and regulations, please visit us on the web at epa.ohio.gov/ddagw/DrinkingandGroundWaters.aspx.



State of Ohio Environmental Protection Agency
Division of Drinking and Ground Waters

Public Water System Change of Ownership Notification

If the ownership of your transient PWS has changed, or will change soon, please fill out this form and mail it to your Ohio EPA district office. A district map, along with address and phone numbers, is available online at epa.ohio.gov/districts.aspx.

PWS ID Number: OH _____
PWS County: _____

Previous PWS Information

Previous PWS Name: _____
Previous PWS Owner: _____
Previous Owner Address: _____
City: _____ State: _____ Zip: _____
Previous PWS Phone: _____ Previous Other Phone: _____
Previous PWS Fax: _____
Previous PWS Email: _____

New PWS Information

New PWS Name: _____
New PWS Owner: _____
New Owner Address: _____
City: _____ State: _____ Zip: _____
New PWS Phone: _____ New Other Phone: _____
New PWS Fax: _____
New PWS Email: _____

Ohio EPA Contact Information



Central Office
 Lazarus Government Center
 50 W. Town St., Suite 700
 Columbus, OH 43215
 (614) 644-3020

Central District Office
 Lazarus Government Center
 50 W. Town St., Suite 700
 Columbus, OH 43215
 (614) 728-3778
 (800) 686-2330

Northwest District Office
 347 N. Dunbridge Rd.
 Bowling Green, OH 43402
 (419) 352-8461
 (800) 686-6930

Southeast District Office
 2195 E. Front Street
 Logan, OH 43138
 (740) 385-8501
 (800) 686-7330

Northeast District Office
 2110 E. Aurora Rd.
 Twinsburg, OH 44087
 (330) 963-1200
 (800) 686-6330

Southwest District Office
 401 E. Fifth St.
 Dayton, OH 45402
 (937) 285-6357
 (800) 686-8930

*Toll-free numbers are for citizens with questions or concerns about environmental issues.
 The regulated community should use the business line for routine business.
 Spills and emergencies should be reported to (800) 282-9378.*