



Transient Public Water System Guide



A Guide to Help Transient Public Water Systems
Comply with Ohio EPA's Rules and Regulations

Division of Drinking and Ground Waters

October 2022

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What is a transient public water system?

A transient public water system (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. Please note that all migrant labor camps receive a designation as a PWS, regardless of population.

Why did I receive this guide?

As a transient 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.

Summary of 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 general Ohio EPA requirements. More detail is included in specific sections of this guide. If the PWS uses a surface water source (e.g., lake, river, stream, reservoir, pond, natural spring), please contact your district office for additional requirements.

Total Coliform Bacteria Monitoring

All PWSs must monitor for total coliform bacteria. Transient PWSs must monitor for total coliform bacteria in accordance with the annual monitoring schedule provided by Ohio EPA, which may include quarterly and/or monthly monitoring. Additional samples may be required in response to total coliform or E. coli positive samples.

Positive total coliform sample results may also trigger a Level 1 or Level 2 Assessment. An E. coli maximum contaminant level (MCL) violation triggers a Level 2 Assessment. Both Level 1 and Level 2 Assessments are conducted to identify and fix the cause(s) of the potential contamination.

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 Ohio EPA.

License to Operate

PWSs must obtain an annual 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.

Certified Professional Operator

Transient PWSs may be required to have a certified professional operator if they meet certain conditions, such as serving an average population of more than 250, producing more than 1,250 gallons per day, or treating the water to remove a contaminant with an MCL.

Detail Plans

Detail plans must be submitted to Ohio EPA for review and approval before making any substantial change to a PWS, such as adding or removing treatment, changing the size of a well pump or pressure tank, drilling a new well, etc. 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 Start-up Checklist every year before their primary operating season, which includes a collection of one or more total coliform samples and submission of the seasonal start-up certification form. For more information regarding the seasonal startup procedure, PWS owners should contact their district office or visit:

epa.ohio.gov/static/Portals/28/documents/rules/rtrcr/SeasonalStartupChecklist.pdf

Monitoring Requirements

Transient PWSs must perform water quality monitoring on a regular basis. The monitoring results must meet minimum Ohio water quality standards. To outline monitoring requirements, Ohio EPA has created a monitoring schedule for each individual PWS; these monitoring schedules can be found at: <https://epa.ohio.gov/divisions-and-offices/drinking-and-ground-waters/public-water-systems/monitoring-and-reporting>

It is the water system's responsibility to make sure that all water samples are collected in accordance with the locations and timeframes specified in the PWS's annual monitoring schedule.

Where do I collect the samples?

- **Total coliform bacteria samples** must be taken from the distribution system, as specified in the PWS's sample siting plan. Examples of typical distribution monitoring locations include restroom sink faucets, kitchen hand sink faucets, bar hand sink faucets, etc. The appropriate sample monitoring point (SMP) to use when completing the paperwork for the laboratory is "DS000".
 - To access the general "Total Coliform Sample Siting Plan" template visit:
epa.ohio.gov/static/Portals/28/documents/rules/rtrcr/SSP-General.pdf
 - To access the "Seasonal Total Coliform Sample Siting Plan" template visit:
epa.ohio.gov/static/Portals/28/documents/rules/rtrcr/SSP-Seasonal.pdf
- **Nitrate and nitrite samples** must 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 groundwater source and serving a population of 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 seasonal start-up sample must be collected from the tap that is most susceptible to contamination, which is typically the tap furthest from the well. The appropriate SMP for the laboratory form is "SUP01".
- 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.
- For more information regarding seasonal requirements, please consult with your district office inspector or visit: epa.ohio.gov/divisions-and-offices/drinking-and-ground-waters/public-water-systems/revised-total-coliform-rule and clicking on the "Seasonal Systems" tab.

Administrative Penalty Program

Failing to properly 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. For more information about the Administrative Penalty Program, see the fact sheet visit:

epa.ohio.gov/static/Portals/28/documents/enforcement/AdminPenaltyProgram/saveadimeFAQs.pdf



**Save a dime.
Sample on time!**

How do I arrange to have my water tested?

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. To find a list of certified laboratories visit: epa.ohio.gov/static/Portals/28/documents/labcert/Combined-Lab-List.pdf. If you want a list of certified laboratories sent to you, contact our office at (614) 644-2752.

Collecting the Sample

Ohio EPA does not collect samples for public water systems; you must plan for the collection and analysis of your required samples. You may collect the required samples yourself. Contact a certified laboratory to obtain the sampling kit, which will 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. Collect nitrate and nitrite samples at the entry point to your system — the first tap after treatment.

Ohio EPA strongly recommends collecting samples early in the monitoring period and early in the week to help ensure that all required samples are collected in a timely manner, and that the PWS will have time to collect repeat or confirmation samples, if needed.

If you prefer to not collect your own samples, a list of sample collection services can be found by visiting: epa.ohio.gov/static/Portals/28/documents/pws/DWSample.pdf

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 visit: epa.ohio.gov/divisions-and-offices/drinking-and-ground-waters/public-water-systems/monitoring-and-reporting or call (614) 644-2752.

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

- PWS name, address, and 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 the results of your drinking water samples to Ohio EPA using electronic Drinking Water Reports (eDWR). You do not need to submit the results to Ohio EPA yourself; your certified lab will provide the appropriate sample submission report.

Keep Copies of All Test Results in an Accessible File

The laboratory should send you a copy of your results. If you do not receive this report, contact your 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 any 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 Collect and Avoid Contaminating Samples During Collection

Proper collection and handling of the sampling tap and samples is essential in accurately reflecting the water quality in the samples collected. For sampling instructions visit:

epa.ohio.gov/static/Portals/28/documents/rules/rtcr/TCSampleCollection.pdf.

Additionally, for a video explaining how to collect a total coliform sample you can visit:

<https://www.youtube.com/watch?v=IPDXtHeh6pQ>

The below list will help ensure that samples are collected properly:

- Carefully follow all 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 (goosenecks).
- Wash hands thoroughly before collection.
- Remove aerators or screens before collection.
- Flush tap for at least 1 minute.
- Sanitize the 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. Do not use a lighter or flame to sanitize the tap.
- Flush tap for 3-5 minutes.
- Reduce the flow to the width of a pencil before 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 the 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 3 repeat samples for each TC+ routine sample within 24 hours of being notified of a TC+ 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. Label these samples as “Repeat” on the laboratory form.
 - **Please note that these 3 repeat samples will not count towards a monthly routine requirement.**
- **Collect at least one source sample within 24 hours** of being notified of a TC+ result if your water system has more than one well or treats the water with anything more than a softener and/or cartridge filter, in accordance with the Ground Water Rule, OAC Rule 3745-81-42.
- 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 advisory must be issued as soon as possible, but no later than 24 hours after the violation, and must continue until corrective action has been completed and a set of three repeat samples are TC-.

A fact sheet containing more information on total coliform bacteria and the requirements can be found by visiting: epa.ohio.gov/static/Portals/28/documents/rules/rtrcr/FactSheet-SmallNoncomm-RTCR.pdf

Nitrate and Nitrite

Nitrate and nitrite are chemicals that may contaminant drinking water, usually through runoff of agricultural fertilizers or from human or animal wastes, such as feedlots or faulty septic systems.

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 from the Ohio EPA and the Ohio Department of Health (ODH).

ODH: odh.ohio.gov/know-our-programs/health-assessment-section/media/nitrates-nitrites-factsheet

Ohio EPA: epa.ohio.gov/static/Portals/28/documents/pws/Nitrate_in_Public_Drinking_Water.pdf

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

The MCL for nitrate is 10 mg/L and the MCL for nitrite is 1 mg/L. If a sample result is greater than the MCL:

- Contact Ohio EPA's central office **immediately** at (614) 644-2752.
- Collect a confirmation 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 *E. coli* and nitrate/nitrite MCL violations must be issued as soon as possible, but no later than 24 hours after being notified of the violation. However, 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 closed, you will be required to issue public notification within 7 days of reopening 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.

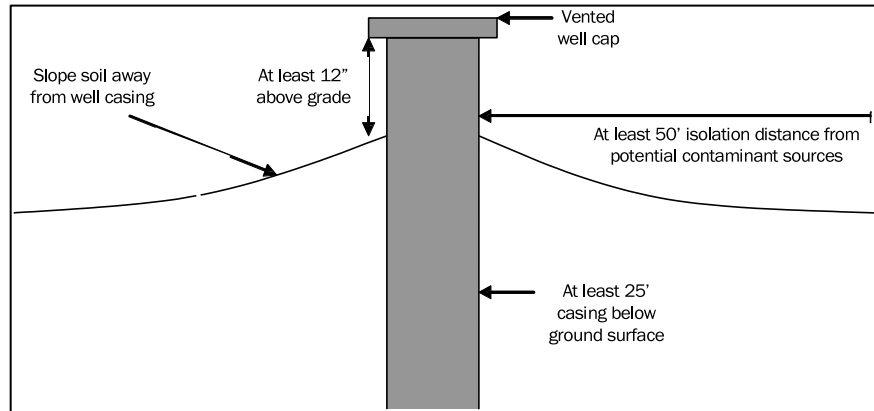
Additional requirements for public notification of MCL violations may be established during a consultation with Ohio EPA.

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 Ohio EPA within 10 days after posting.

Preventing Contamination

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

- Keep potential contaminant sources, such as fuels, degreasers, sewer lines, septic systems, fertilizers pesticides, herbicides, etc. at least 50 feet away from your well.
- Provide a secure and intact well cap with a down-turned, 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, or at least 3 feet above the flood elevation if located in a floodplain.
- Slope soil surface away from the well to drain surface runoff away from the well.
- Inspect well routinely for problems such as:
 - Cracked, corroded, or damaged well casing.
 - Broken or missing well cap.
 - Damaged or missing vent screen.
 - Settling and cracking of the soil around the well.
 - Cracked or broken electrical conduit.
 - Insect or rodent infestation or damage.
- Protect the well from potential vehicle or lawn equipment damage.
- Disinfect drinking water wells only after repairs or modifications, as part of the seasonal public water system startup procedure, or as directed by Ohio EPA.
- Have the well tested as directed for total coliform bacteria, nitrate, nitrite, and any other contaminants of concern.
- Keep accurate records of any well repairs or maintenance activities, 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.
- Properly abandon and seal unused wells.
- 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, use NSF-certified softener 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.
- For more information, visit: epa.ohio.gov/static/Portals/28/documents/pws/PWS-02-003%20brochure.pdf



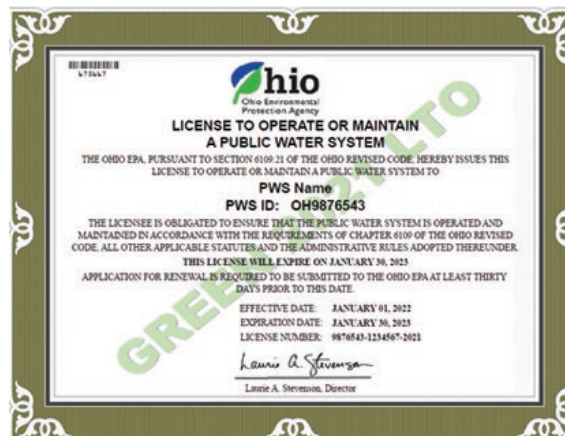
*Example of a cross connection:
hose in dirty water.*



*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 (LTO) from Ohio EPA every year. Updated applications and payments are due to Ohio EPA by December 31st. A ten percent (10%) late fee will be assessed if the application and payment are not received on time. Ohio EPA will send all correspondence regarding the LTO to the system's financial contact. Update Ohio EPA promptly if your financial contact changes to avoid fees and penalties due to late payment.



Certified Professional Operator

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

To become a Class A certified professional operator, applicants must pass an examination and demonstrate a minimum amount of operating experience at a public water system. 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 the examination through an Ohio EPA's

approved examination provider. Those exams are offered at least five days per week at multiple locations throughout the state. If interested in free Class A training, it can be found on Ohio EPA's certification website by visiting: <https://epa.ohio.gov/divisions-and-offices/drinking-and-ground-waters/certified-operators/exam-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 can be found by visiting: epa.ohio.gov/about/districts/district-offices

More Information

For more information about transient PWS requirements and assistance meeting Ohio EPA's rules and regulations, please visit: <https://epa.ohio.gov/divisions-and-offices/drinking-and-ground-waters> or contact your drinking water inspector, which can be found by visiting: epa.ohio.gov/about/districts/district-offices



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. In order to locate a district map, along with address and phone numbers, please visit: epa.ohio.gov/about/districts/district-offices

PWS ID Number: OH _____
PWS County: _____

Previous PWS Information

Previous PWS Name: _____
Previous PWS Owner: _____
Previous Owner _____
City _____ State: _____ Zip: _____
Previous PWS _____ Previous Other _____
Previous PWS Fax: _____
Previous PWS _____

New PWS Information

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

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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