



TRANSIENT PUBLIC WATER SYSTEM GUIDE

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

TRANSIENT PUBLIC WATER SYSTEM GUIDE



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TRANSIENT PUBLIC WATER SYSTEM 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 about how to meet those requirements and should be saved for future reference.

A transient PWS is a water system that regularly serves an average of 25 people daily 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.

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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MAIN REQUIREMENTS OF A TRANSIENT PUBLIC WATER SYSTEM

The following 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.

1. **Total Coliform Bacteria Monitoring**

All PWSs 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 PWSs are required to monitor for total coliform bacteria at least once every calendar quarter.

Note: There will be changes to the above requirements when the revised total coliform rule becomes effective on April 1, 2016.

2. **Nitrate and Nitrite Monitoring**

All PWSs are required to monitor for nitrate and nitrite in order to determine compliance with MCLs. Transient PWSs are required to 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.

3. **License to Operate**

PWSs are required to obtain a license to operate a PWS from Ohio EPA. Churches, church-owned campgrounds and schools are exempt from this requirement.

4. **Class A Certified Operator**

Transient PWSs 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 to Ohio EPA for review and approval before making any substantial change to a PWS.

6. **Seasonal System Start-Up Procedure**

Seasonal PWSs should either contact their district office or visit epa.ohio.gov/portals/28/documents/pws/seasonal_checklist.pdf for the procedure.



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MONITORING REQUIREMENTS

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

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

Contaminant	Ground Water System	Sample Tap	Sample Monitoring Point (SMP) Code
Total Coliform Bacteria	1 sample each calendar quarter	Collect from the distribution system according to your sample siting plan	DS000
Nitrate	1 sample per year (as scheduled)	Collect from the entry point to the distribution system (first tap after any treatment)	EP00# listed on your schedule (usually EP001)
Nitrite	1 sample every 9 years (as scheduled)		

SAVE A DIME. SAMPLE ON TIME.

As of January 1, 2014, failing to sample for total coliform or nitrate will cost \$150 or more in penalties for each violation. For a list of drinking water collection services visit:

epa.ohio.gov/portals/28/documents/PWS/DWSample.pdf



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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 system (i.e., the first available tap after any treatment). The appropriate SMP is the EP00# listed on your schedule (usually EP001).

WHAT IF I ONLY OPERATE PART OF THE YEAR?

- * Seasonal PWSs must notify their Ohio EPA district office of their facility's operating season.
- * Transient PWSs are required to 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 down and depressurized during the entire monitoring period.

Administrative Penalty Program

Failing to sample for total coliform or nitrate during the required monitoring period will cost \$150 or more in penalties for each monitoring violation. Don't put your consumers at risk. Sample on time.

For more information, see the fact sheet at:

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



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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 epa.ohio.gov/ddagw/labcert.aspx. 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 PWS 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. If you need a copy of your monitoring schedule, call Ohio EPA at (614) 644-2752 or find them on online at epa.ohio.gov/ddagw.



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HOW DO I ARRANGE TO HAVE MY WATER TESTED?

CONTINUED

The laboratory needs the following information to report results:

Total coliform bacteria

PWS (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

PWS name, address, PWSID number, facility ID, sample monitoring point (usually EP001), sample collection date and time, sample collector and sample purpose (usually compliance).

ELECTRONIC DRINKING WATER REPORTS (eDWR)

Certified Laboratories are required to submit Public Water System 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 (Coliform) reports and Chemical analysis reports. Note there are **deadlines** for reporting data to Ohio EPA. For deadlines and more information, visit: epa.ohio.gov/ddagw/reporting.aspx.

KEEP COPIES OF ALL TEST RESULTS IN AN ACCESSIBLE 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 for a minimum of 10 years.

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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, 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
- Avoid faucets with cold/hot mixing valves
- Avoid faucets with long stems (e.g., goose necks)
- Wash hands thoroughly before collection
- Remove aerators or screens before collection
- Sanitize tap for at least two minutes
- Flush tap for at least five minutes, turning down (not off) prior to filling sample bottle
- 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



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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, 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 positive 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, rule 3745-81-42 of the Ohio Administrative Code.
 - ***NOTE: If you have minimal treatment, the four 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 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 five samples in the month following** the routine total coliform positive sample.

An acute MCL violation occurs if any **repeat** sample is positive for fecal coliform or *E. coli*, or positive for total coliform following a routine sample that was positive for fecal coliform or *E. coli*. A boil order must be issued as soon as possible but no later than 24 hours after the violation, and continue until a set of four 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 boil order is not necessary, but a public notice must be issued no later than 30 days after notification of the violation.



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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 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 immediately 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.



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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 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.

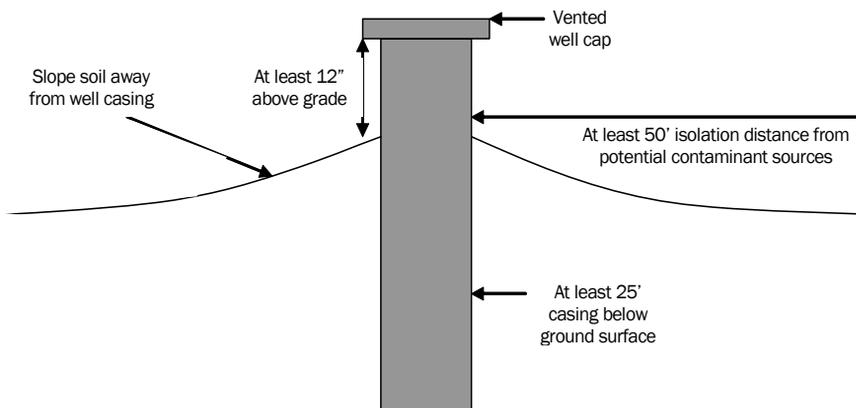
Additional requirements for public notification of MCL violations may be established during consultation with Ohio EPA.

If you are required to issue a public notice for a violation, Ohio EPA will send a sample public notice and verification form. If you choose to alter any of the standard language, you must submit the changes for Ohio EPA approval prior to posting or distribution. Following issuance of the public notice, send a copy of the public notice to Ohio EPA, along with the completed and signed verification form.

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PREVENTING CONTAMINATION

- 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.
- Extend well casing to 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; and
 - * settling and cracking of surface seals.
- Protect well from potential vehicle damage.
- Disinfect drinking water wells **only** after repairs or modifications.
- Have the well tested as directed for total coliform bacteria, nitrate and any 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.



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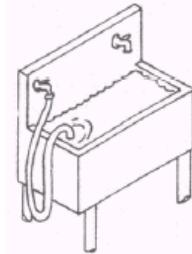
PREVENTING CONTAMINATION

CONTINUED

- 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 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



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LICENSE TO OPERATE

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



CLASS A CERTIFIED OPERATOR

Ohio EPA classifies transient PWSs based on size of population served and sources of water. Transient PWSs which serve a daily population greater than 250 and use only ground water or purchased water sources are classified as Class A systems.

To become a Class A certified operator, applicants must submit an application and then take and pass an exam. To take the exam, the applicant must have at least an eighth grade education and six months experience operating a PWS (up to five years experience may be required depending on education level). Ohio EPA holds regional testing opportunities, at minimal costs, to those seeking Class A water operator certification. Class A training is available on the Ohio EPA certification website. Visit epa.ohio.gov/ddagw/opcert.aspx for more information on training and testing.

COMING SOON...

Revised Total Coliform Rule (RTCR) - Effective April 2016.
Sign up to receive news from Ohio EPA-DDAGW at:
ohioepa.custhelp.com/ci/documents/detail/2/subscriptionpage



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DETAIL PLANS

PWSs are required to 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 further assistance prior to purchasing or leasing equipment or drilling a new well.

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 (please see map and addresses on back page).

PWSID Number: _____

County: _____

Previous System Name: _____

Previous Owner: _____

Previous Owner Address: _____

Previous Phone: _____

Previous Fax/Email: _____

New System Name: _____

New Owner: _____

New Owner Address: _____

New Phone: _____

New Fax/Email: _____



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OHIO EPA CONTACTS

Central Office

50 W. Town St., Ste. 700
P.O. Box 1049
Columbus, Ohio 43216
(614) 644-2752
FAX: (614) 644-2909

NWDO:

Northwest District Office

347 North Dunbridge Road
Bowling Green, Ohio 43402
(419) 352-8461
FAX: (419) 352-8468

NEDO:

Northeast District Office

2110 E. Aurora Road
Twinsburg, Ohio 44087
(330) 963-1200
FAX: (330) 487-0769

CDO:

Central District Office

50 W. Town St., Ste. 700
P.O. Box 1049
Columbus, Ohio 43216
(614) 728-3778
FAX: (614) 728-3898

SWDO:

Southwest District Office

401 East Fifth Street
Dayton, Ohio 45402
(937) 285-6357
FAX: (937) 285-6249

SEDO:

Southeast District Office

2195 Front Street
Logan, Ohio 43138
(740) 385-8501
FAX: (740) 385-6490

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