Ohio EPA COVID-19 Response—DDAGW Website Creation

In response to COVID-19, on March 23, 2020, Ohio EPA Central Office and district offices closed all physical locations. To take precautions, Ohio EPA staff members began working from home, shifting all regular activities to online and virtual work. This began the use of remote services to communicate with public water systems and ingest plans, permit applications, etc., electronically.

To further assist public water systems, the Division of Drinking and Ground Waters created a dedicated webpage — [eepa.ohio.gov/ddagw/covid19](http://epa.ohio.gov/ddagw/covid19) — to share the latest updates and information.

The webpage contains a multitude of in-depth tools, guidance, and information for public water systems, including a questionnaire that can be filled out by entities and submitted to Ohio EPA for direct assistance. There are multiple Quick Links on the site that lead to guidance from organizations such as the Centers for Disease Control and Prevention, American Water Works, U.S. EPA and ASDWA. There are also tabs for Operations, Operators, Public Systems, Laboratories, Monitoring, and Engineering – more specific to the division’s normal guidance and functions. The Operations tab contains information regarding operator staffing requirements, Ohio public water system operator guidance, designating essential employees, required public water system monitoring, and additional information regarding operations. The Operators tab contains information specifically for operators of public water systems, and the Public Systems tab contains guidance and essential documents for those public water systems. The Laboratories tab contains information regarding the Ohio EPA laboratory certification program and how these activities will be conducted during the pandemic. The Monitoring tab contains a list of laboratory collection services still operating during this time. The Engineering tab includes information regarding plan submittals (how to do so electronically) and fee updates.

During this time, distribution system monitoring has been a question and concern for some public water systems. In response to these issues, Ohio EPA has created recommendations on how to address distribution system monitoring requirements and sampling, which can be found on the website at: [epa.ohio.gov/ddagw/covid19#187665330-operations](http://epa.ohio.gov/ddagw/covid19#187665330-operations). This specific link also contains information regarding operator staffing information and recommendations.

Updates from Ohio EPA are maintained and posted regularly on this website, and throughout the pandemic it has been recommended that entities and consumers check the site on a regular basis. Contact Ohio EPA with any questions that you may have by calling (614) 644-2752.
Asset Management and Reporting Metrics Data

In 2018, Ohio EPA adopted Ohio Administrative Code (OAC) Rules 3745-87-01 through 3745-87-05, which require every public water system to develop a written asset management program. The purpose of the asset management program is to demonstrate the managerial, technical, and financial capability of the public water system. An effective asset management program will help water systems to achieve the longest useful life of each asset at the lowest cost, while delivering the expected level of service.

As part of asset management, all public water systems are required to track and annually document asset management metrics in accordance with OAC Rule 3745-87-05. Metrics are performance measures that allow public water systems to gauge the status of their water system. All public water systems will be required to report their metrics data to Ohio EPA each year. Ohio EPA is currently developing a new online tool, called the Drinking Water Online Portal (DROP), which will allow water systems to submit metrics data electronically. Metrics data must be submitted electronically through DROP. Hard copies and other forms of electronic submission will not be accepted.

DROP will be available from August 1 to November 15 this year for public water systems to submit metrics data for 2019. Each public water system will need to identify a Metrics Submitter, who will need a valid email address, in order to create a DROP account. For 2020, public water systems must estimate any metrics data that was not collected during 2019. The water system will be able to indicate in DROP if the data is actual or an estimate.

**DROP will be available from August 1 to November 15 this year**

### Metrics Data for Noncommunity Water Systems

Transient noncommunity (TNC) and non-transient noncommunity (NTNC) public water systems must track and report the following metrics data:

**Documentation of instances when the water system’s pressure dropped below 20 psi.**
If the water system’s pressure drops below 20 psi, it is considered a disruption of service. The PWS must keep record of each disruption of service event and the total number of events must be reported in DROP.

**Number of days unable to serve water**
Noncommunity PWSs must record each day when they are unable to serve water during regular business hours due to an emergency in the water system (e.g., equipment failure, power outage). This **does not** include scheduled downtime for repairs (e.g., planned maintenance), and it does not include the off-season if the facility operates seasonally. The total number of days when the water system was unable to serve water must be reported.

**Repair, rehabilitation or replacement tasks per year (Emergency vs. Planned)**
The PWS must record and report the number of water system repair, rehabilitation, and replacement tasks each year. The PWS must track planned tasks and emergency tasks separately. The total number of each task must be reported.

**Reserve funds**
Noncommunity PWSs must report the amount of reserve funds on hand or available for immediate use by the water system (e.g. reserve fund balance). It is recommended to have enough on hand to replace the most critical water system asset in the event of failure. If no funds are set aside, report $0.

For more information, please see Ohio EPA’s fact sheet on Noncommunity Metrics.

### Metrics Data for Community Water Systems

Community public water systems are required to report a different set of metrics. These metrics are based on calculations. Therefore, community public water systems must report the raw metrics data into DROP that will be used to automatically calculate the metrics data. For more information, including the complete list of metrics and raw metrics data, please see Ohio EPA’s fact sheet on Community Metrics.

For templates and more information on asset management, please visit the asset management webpage at [epa.ohio.gov/ddagw/pws/assetmanagement](http://epa.ohio.gov/ddagw/pws/assetmanagement), or contact your Ohio EPA district or Central Office.

From April 7, 2020 until 11:59 pm on May 29, Ohio was placed under a Stay at Home Order (Order) by Governor Mike DeWine due to the ongoing COVID-19 State of Emergency. During this time, nonessential Ohio businesses closed to the public, many of whom were provided water by noncommunity water systems that halted operations as a result of this order. As the reopening of Ohio businesses has ensued, returning noncommunity water systems to regular operations has posed unfamiliar challenges to many public water systems. Long-term closures are unusual for many water systems and pose unique hazards to public health and water quality.

When buildings close or become vacant for extended periods of time, the stagnation of water within plumbing can lead to deterioration in water quality, including loss of disinfectant residual, microbial growth, the accumulation of sediments and metals, and increased disinfection byproduct formation.

Fortunately, long-term closures aren’t completely unknown in the world of public water systems. The Revised Total Coliform Rule (RTCR), effective April 1, 2016, requires a seasonal public water system to take specific actions before opening to the public at the beginning of their operating season. The Simplified Start-Up Checklist For Fully-Pressurized Seasonal Systems was used by many as a helpful guide when preparing to return a closed noncommunity water system to service.

Reopening Ohio—What Action Was Taken to Return to Normal Operations
At a minimum, the following actions were taken by public water systems prior to reopening. Systems:

1. Inspected all system components to ensure they were in good condition.

   **Well:** The well cap fit securely to the tap of the well casing and the bolts were present and tight. The screen in the down-turned vent was intact. The casing was structurally sound (without holes or cracks).

   **Any other tanks:** The tank was not leaking. Access hatches were secured. Overflow and vent screens were intact.

   **Treatment equipment:** Equipment did not appear damaged. Chemical injection points had been cleaned. Necessary chemicals are on hand, NSF-approved, and not expired.

   **Distribution lines/plumbing:** All visible lines, plumbing, fixtures, and drains appeared intact. Critical valves operated as needed. Valves were in the appropriate open or closed position.

   **Pressure tank:** The tank was not leaking. The air bladder had not failed. To determine if the air bladder had failed in a metal pressure, a PWS would wrap a knuckle on the side of the tank. The bottom half of the tank would sound dull when tapped on. The top half would sound hollow. In fiberglass tanks (or if the metal tank sounds the same, top and bottom), a PWS would unscrew the cap from the Schrader valve (fitting where air can be added) and very briefly press down on the stem in the valve. If the bladder had failed, water would have spit from the valve.

2. Made any Repairs Necessary. Disinfection of the well and distribution system were strongly encouraged if repairs were necessary.

3. Flushed the System. Ohio EPA’s detailed instructions for flushing premise plumbing: epa.ohio.gov/ddagw/covid19#187665334-consumers. Noncommunity water systems that consisted of multiple buildings should have flushed distribution mains first, if possible, and then flushed each building individually, beginning with the building closest to the treatment plant and proceeding outward. If the water system’s well water was high in iron, sulfur, or other contaminants, particulates may have accumulated in the well. Pumping the well to waste (if possible) may have reduced the particulates that enter the treatment equipment and distribution system.

4. Disinfected: Although not required, owners and operators may have decided to disinfect the water system before opening to the public. Any time a public water system well is disinfected, two total coliform negative (safe) special purpose samples, collected at least 30 minutes apart, must be obtained from the well before returning it to service [Ohio Administrative Code (OAC) 3745-9-08(D)].

5. Total Coliform Sampling: Before re-opening and serving water to the public, all public water systems that stopped operating due to the COVID emergency were required to collect at least one total coliform negative (safe) special purpose sample from a routine location listed in their total coliform sample siting plan.

Routine Sampling after Returning to Normal Operations

As systems returned to normal operations, and continue to do so, so have the routine collection of compliance samples required by the water system’s monitoring schedule. Normal operating conditions are the operational and treatment processes routinely used by a public water system which are representative of the practices under which water is typically delivered to consumers [OAC 3745-81-01(N)(2)].

However, additional care must be taken to ensure compliance samples collected from distribution system locations are collected under normal operating conditions. This is because the concentrations of these contaminants – such as lead and copper, disinfection byproducts, and total coliform – are affected by the operation of the distribution system. So that the quality of the water served to consumers can be accurately assessed through compliance sampling, the rules that detail the monitoring requirements for these contaminants include special sampling requirements.

Total coliform samples, for example, must be representative of water throughout the distribution system [OAC Rule 3745-81-50(B)]. This means a public water system that does not have an approved disinfection treatment system may not add disinfectant to any part of the system prior to collecting a total coliform compliance sample [OAC 3745-81-01(N)(2)]. While disinfecting before sampling may result in total coliform negative samples, it is not representative of the water served to the public during the rest of the monitoring period and may mask an ongoing bacteriological contamination issue. (Continued on page 5)

Similarly, the lead and copper rules require first-draw samples that have stood motionless in the plumbing system . . . for at least six hours [OAC Rule 3745-81-86(B)(2)]. Because lead and copper usually enter drinking water through corrosion of plumbing materials, their concentrations increase as water remains in contact with the lead- or copper-containing components. Because people do not always run their taps before consuming water, the six-hour stagnation period is intended to mimic the average age of water after a decreased use period, such as overnight or a workday.

Concentrations of disinfection byproducts (DBPs) are also sensitive to water age and increase over time as disinfectants react with the organic matter in the water. So that DBP compliance samples are representative of the water customers are consuming, these samples must be collected under normal operating conditions [OAC Rule 3745-81-24(C)(5)]. Flushing the distribution system just prior to collecting DBP samples is not be considered normal operating conditions [OAC 3745-81-01(N)(2)].

Neither the period the noncommunity water system was not operating, nor immediately after flushing before returning to operations, would be considered normal operating conditions. To define when normal operating conditions have been met for noncommunity water systems returning to service after the Order ends, Ohio EPA established the following timeframes for distribution system compliance sample collection:

For DBP samples, wait at least one week after flushing before sampling. For lead and copper samples, flush at least two days before sampling. For total coliform compliance samples, if flushing includes additional disinfection, sample at least 24 hours after the chlorine residual has returned to normal operating levels, or to non-detectable levels for water systems that do not feed chlorine. Systems that do not have a chlorine test kit to confirm that chlorine is not detectable can ensure chlorine is absent by waiting at least seven days after flushing the system.

Despite the many unknowns and great uncertainty we have all experienced throughout the COVID emergency, thanks to the diligent efforts of Ohio’s public water systems’ owners and operators, Ohio residents can be confident of the safety and quality of their drinking water now that many operations have resumed.

2020 PAPER AND PENCIL EXAMS
WATER AND WASTEWATER

Water and wastewater examinations have been postponed and will be rescheduled. Applicants have been notified of this postponement via email and will receive notification of the new examination date once it is established.

For More Information:

Call the operator certification hotline at 1-866-411-OPCT (6728) or visit: epa.ohio.gov/ddagw/opcert.aspx for more information.
Cyanobacteria and Ozone Treatment - The Village of Put-In-Bay

The Village of Put-In-Bay uses Lake Erie as a surface water supply with treatment of its drinking water thru a multi tech filtration system. There are only 311 service connections, but the population swells to over 26,000 during the tourist season. The treatment has proved efficient for the removal of turbidity but would not be effective in the removal of microcystins. Cyanobacteria (Blue Green Algae) in addition to producing toxins, can pose other treatment challenges for public water systems, including taste and odor and shortened filter run times. The Village of Put-In-Bay piloted an ozone system in the summer of 2017 and 2018. The ozone system proved effective in the destruction of toxins taste and odor and extended filter run times.

The Village Administration changed at the end of 2018 as did the water superintendent. The 2019 HAB season was quickly approaching and expedited action was required to install the treatment prior to HAB season. The Village Ohio EPA (legal, engineering, administration, and the division of environmental and financial assistance) to meet the construction deadline of July 1, 2019.

Bids were advertised and opened Jan. 31, 2019. The awarded total project cost was $2,099,282.22. Final revised detailed plans were issued for the ozone system on Feb. 26, 2019, which included an ozone generation system. The WSRLA loan was awarded March 28, 2019.

Ozone equipment was delivered to the Island in May and June of 2019. The final Ohio EPA construction inspection was completed on July 24, 2019, just in time for HAB season. In addition to the ozone installation the Village constructed a new water laboratory and a large break wall to protect the water plant from high lake levels. The coordination of the expedited project required extra effort from all the stakeholders. In the end, the Village of Put-In-Bay is better equipped to produce safe drinking water year-round.

Notice - The Spigot Newsletter will be phasing out of print, and switching to electronic format only beginning Summer 2020. Please sign up electronically to receive all future newsletter issues.

**Rulemaking Activities**

Below is a brief summary of recent and upcoming rule changes. For more details, including notice of opportunities to comment on draft rules, sign up for our electronic mailing list, or visit us on the web at [epa.ohio.gov/ddagw](http://epa.ohio.gov/ddagw).

**Early Stakeholder Outreach (ESO)**
Ohio EPA prepares early stakeholder outreach fact sheets to ensure stakeholders are brought into the review process as early as possible and to obtain additional input and discussion before development of interested party draft rule language.

- Harmful Algal Bloom Rules
- Plan Approval Rules

**Recently Filed with Joint Committee on Agency Rule Review (JCARR)**
- Disadvantaged Community Loan Rules

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- Harmful Algal Blooms Mailing List: Updates for Public Water Systems and Laboratories
- DDAGW Spigot News: Newsletter for Public Drinking Water Systems
- Drinking Water: Rulemaking Activity and Policy Notification
- Monitoring and Compliance Information
- Underground Injection Control: Rulemaking Activity and Program Notification
- Operator Certification Program: Drinking Water and Wastewater
- Electronic Reporting: Lab Reporting or Water System Reporting