Ohio PFAS Sampling
Division of Drinking and Ground Waters
February 21, 2020
Webinar Purpose

• Overview of sampling process
• Result notification
• Response to detections
• PWS expectations
• Resources
• Q&A
PFAS 101

• Per- and Polyfluoroalkyl Substances (PFAS)
• Synthetic organic chemicals initially developed in the 1940s; 1000s of compounds
• Unique properties, persistent
• Used in commercial products; industrial, and fire-fighting foam
• Limited toxicity data, most studies on PFOA/PFOS
• Currently no MCLs, only one Health Advisory (lifetime) for combined PFOA/PFAS
Ohio Action Plan for PFAS in Drinking Water

• Focused on protecting drinking water
• Highlights
  – Gather sampling data on statewide occurrence in drinking water
  – Establish action levels for PFAS in drinking water
  – Develop public education materials to increase awareness and understanding of PFAS and relative risk of exposure through drinking water and other pathways
Per- and Polyfluoroalkyl Substances (PFAS)

On Sept. 27, 2019, Ohio Governor Mike DeWine directed Ohio EPA and Ohio Department of Health (ODH) to analyze the prevalence of per- and polyfluoroalkyl substances (PFAS) in Ohio’s drinking water.

FAQs

- What are PFAS?
- How can PFAS get into drinking water?
- Where does my drinking water come from?
- How do I know if I have PFAS in my drinking water?
- What are the health effects of exposure to PFAS?
- How can I limit my potential exposure to PFAS?
- Why develop a state action plan?
- How long has Ohio been working on PFAS?

Other Resources

- PFAS in Ohio: Per- and polyfluoroalkyl substances (PFAS) are a group of emerging contaminants. In this video, the Ohio Department of Health discusses what PFAS are, how they enter the environment, how they may impact human health, and how you can help protect yourself and your family from them.

Quick Links

- Action Plan for Drinking Water: Statewide plan to address potential threats to public and private drinking water systems
- PFAS in Drinking Water: Fact sheet with information about how PFAS gets into drinking water, health effects, and testing/treatment options
- How to Reduce Your Exposure to PFAS
Who will be sampled

• All community PWS
  – Approximately 970 water systems
  – Excluding purchased or consecutive water systems

• All non-transient, non-community PWS
  – Approximately 610 systems
  – Nearly 250 systems serve schools and daycares
When are we sampling

• All sampling completed by the end of 2020
• Sampling started February 11, 2020
• Schools and daycares serving as PWS will be tested first
• Expect to increase number of sites/week throughout the first quarter as process is refined
• Community PWS and remainder of NTNC water systems will then be tested
Where are we sampling

• Finished water sample will be collected at Entry Point (EP) location
  – If PWS has multiple Entry Points, each site will be sampled (facility)

• Raw water sample will be collected if an appropriate port is accessible
  – Individual wells will not be separately sampled
What are we testing

Samples will be analyzed via U.S. EPA Method 537.1 for the following PFAS:

<table>
<thead>
<tr>
<th>PFAS Compound</th>
<th>PFOA</th>
<th>PFOS</th>
<th>GenX</th>
<th>PFBS</th>
<th>PFHxS</th>
<th>PFNA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action Level in parts per trillion (ppt)</td>
<td>&gt;70 single or combined with PFOS</td>
<td>&gt;70 single or combined with PFOA</td>
<td>&gt;700</td>
<td>&gt;140,000</td>
<td>&gt; 140</td>
<td>&gt; 21</td>
</tr>
</tbody>
</table>

Reporting level is 5 ppt for all but GenX (25ppt).
Sample Collection

• Ohio EPA Contractors:
  – Brownfields Restoration Group, Mannik Smith Group, and Tetra Tech
  – Under existing ‘Level of Effort’ state contract

• Received training on project sampling SOP

• Oversight by Ohio EPA Contract Manager, Ohio EPA Project QA Manager and field auditing team
Laboratories

- Ohio EPA contract laboratories will analyze initial samples and report to Ohio EPA and contractors
- NELAC certified or Ohio EPA-approved for PFAS analysis
- Ohio EPA laboratory will conduct confirmation analysis
Quality Control Measures

- Quality Assurance Project Plan (QAPP)
- Sample collection protocol (SOP) and Ohio EPA field audits
- QAPP and Sampling SOP will be online soon
- Results go through multiple levels of review and verification
  - Laboratory, contractor, Ohio EPA QA review
Sampling Event Scheduling

1. Ohio EPA District staff will contact you first and provide information about the contactor and sampling process

2. Contractor will contact PWS directly to schedule sampling

3. Contractor will conduct sampling event
   – OEPA may be present during some events
Pre-sampling Preparation

• Identify Entry Point and Raw water sample taps
  – Ensure taps in working order and have at least 9 inches of clearance

• Remove any PFAS containing supplies or equipment at least 30 feet from taps if possible

• Identify ways to purge the system; will be asked to run for at least 20 min
  – If the PWS has been producing water for at least 20 min, be prepared to run taps for at least 2 minutes prior to sample collection
Results Timeframe

• Results will be provided to Ohio EPA approximately 4 weeks after sampling
• If preliminary finished water result is ≥ 50% of Action Level, then Ohio EPA will receive advanced notification by the lab
• All other results will be shared with PWS by Ohio EPA after data review and verification is complete
• PWS will receive all results prior to posting on public webpage
All Finished Water Results Below Reporting Limit

1. Validated data submitted by contractor to Ohio EPA
2. Ohio EPA notifies PWS of result via phone or email
3. Ohio EPA sends PWS letter
4. Results then loaded to public website
5. No further response
Detection in Finished Water
less than 50% of PFAS Action Level

Validated data submitted by contractor to Ohio EPA

Ohio EPA notifies PWS of result via phone and email

Ohio EPA sends PWS letter

ODH/local health dept (LHD) notified

Results then loaded to public website
Detection in Finished Water
> 50% of any PFAS Action Level

Lab will contact Ohio EPA if preliminary results are > 50% of any Action Level

Ohio EPA mobilize agency sampling crew to collect confirmation sample
PWS notified: review contingency plan and consider alternate water/treatment options

ODH and LHD notified

PWS/ODH/LHD/Ohio EPA begin developing public messaging and outreach strategy
Ohio EPA Confirmation Sampling

• For all finished water results $\geq 50\%$ of any PFAS Action Level, Ohio EPA will immediately mobilize sampling crew
• Ohio EPA sampling crew will deliver samples directly to agency lab
• Results expected in approximately 1 week
• Additional sampling may occur
  – May include raw sources or treatment train
Action Level Exceedance

• Pending Ohio EPA confirmatory sampling
• PWS, ODH, LHD notified of result
• PWS/Ohio EPA develop Response Action Plan
• PWS/Ohio EPA/ODH/LHD develop Communication and Outreach Plan
Action Level Exceedance

• PWS expected to:
  – Implement action plan to reduce levels
  – Notify customers
  – Implement Contingency Plan
  – Work closely with state and local agencies to ensure timely and consistent public messaging
OHIO PFAS RESULTS MAP

- Coming soon to pfas.ohio.gov
- Will include all PWS to be sampled
- PFAS results after they are approved by Ohio EPA and provided to PWS
Follow-up Sampling

• Finished water detections above the reporting limit
  – quarterly monitoring for at least 1 year

• Confirmed finished water detections above the Action Level
  – monthly monitoring for at least 1 year

• Ohio EPA is planning to conduct follow-up monitoring pending funding approval
Consumer Confidence Report (CCR)

- PFAS detections are required to be reported in the system’s next CCR
- OEPA will provide template language
Acceptance Criteria for Alternate Data

• Recognize that some PWS are voluntarily testing their source and finished waters for PFAS

• Do not want to duplicate efforts if equivalent data are available

• Data can be accepted in the following criteria are met
Acceptance Criteria for Alternate Data

- Collection procedures equivalent to Ohio EPA Sampling SOP
- USEPA Method 537.1 by a NELAC-certified lab or Ohio EPA approved lab
- Data sheets can be provided to Ohio EPA and meets QA evaluation
- Reported parameters include (at least) the same 6 parameters identified in Ohio’s PFAS Action Plan
- PWS allows Ohio EPA to report results on the Ohio PFAS webpage
PWS Toolkit

• Pfas.ohio.gov
  – “Public Drinking Water” tab

• Currently
  – Template letters (PWS to customers):
    pre-sampling notification, results

• Developing
  – FAQ
  – Treatment white paper and other info
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Quick Links
- Action Plan for Drinking Water
- PFAS in Drinking Water
- How to Reduce Your Exposure to PFAS
PFAS Funding

- PFAS Remediation 0% loans now available
  - Structured like existing HAB loan program
  - Submit anytime
  - Treatment and source water protection measures eligible
Resources

• The best source of information regarding the sampling effort is pfas.ohio.gov
  – Current activities, results, PWS toolkit, other resources
  – List of Ohio EPA approved labs
  – Fact Sheets (others TBD)
    • PFAS in Drinking Water
    • How to reduce your exposure to PFAS
    • PFAS and sensitive populations
    • Home treatment options
    • Overview of physicians
Contact Ohio EPA

- **DDAGW Central Office**
  - 614-644-2752

- **Your DDAGW District Inspector**
  - CDO: 614-728-3778
  - NEDO: 330-963-1200
  - NWDO: 419-352-8461
  - SEDO: 740-385-8501
  - SWDO: 937-285-6357

- **Sampling schedule and contractors**
  - Mike Proffitt, Project Contract Manager
  - 937-285-6603
    michael.proffitt@epa.ohio.gov

- **PFAS treatment**
  - Ohio EPA Engineering Section
  - 614-644-2752
    judy.Stottsberry@epa.ohio.gov

- **School and Daycare Administrators**
  - Bonnie Buthker 937-285-6468
    bonnie.Buthker@epa.ohio.gov
Questions?