



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

# Update on Michigan's Regulatory Approach for Addressing PFAS in Municipal Wastewater

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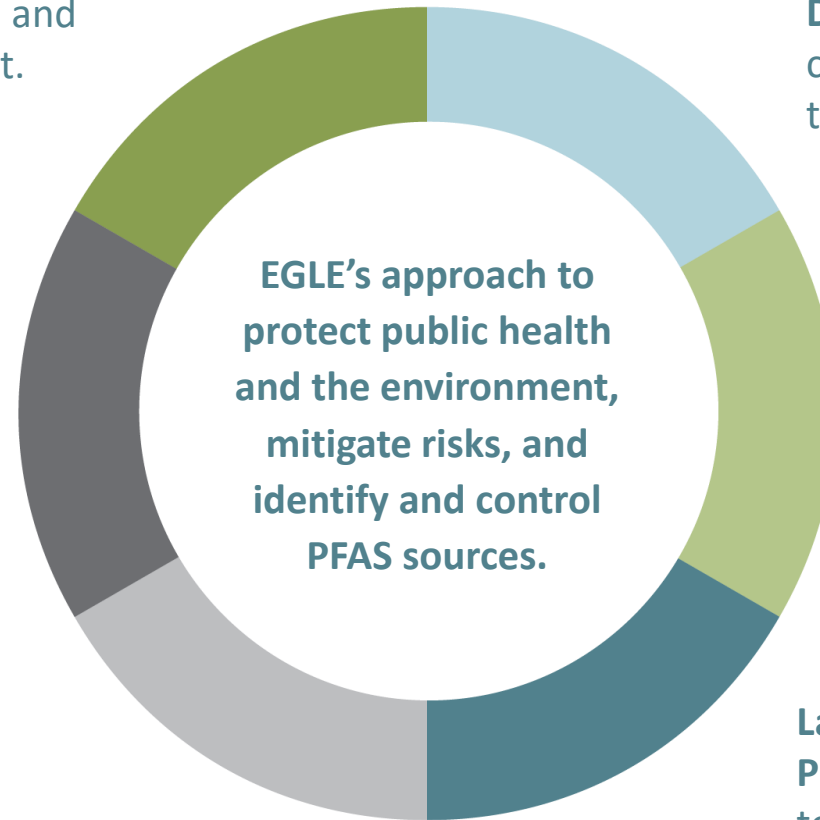
May 16, 2023

# Water Resources Division PFAS Strategies

**Surface Water Assessment:** PFAS surface water monitoring, fish contaminant monitoring, and Rule 57 Water Quality Value Development.

**Industrial Pretreatment Program PFAS Initiative:** Requires all IPP WWTPs to conduct PFAS source investigation.

**Municipal NPDES Permitting Strategy:** Includes PFAS monitoring, limits, and compliance schedules, as applicable.



**Industrial Stormwater and Industrial Direct Discharge Strategy:** Requires PFAS characterization and mitigation of discharges to surface water and groundwater.

**Public and Private Municipal Groundwater Discharges Compliance Strategy:** Outlines how EGLE will prioritize, evaluate, and address PFAS from municipal groundwater discharges.

**Land Application of Biosolids Containing PFAS Interim Strategy:** Requires all WWTPs to sample for PFAS prior to land application.

# Michigan PFAS Criteria: Surface Water

Rule 57 Toxic Substances of the Part 4 Water Quality Standards  
Natural Resource & Environmental Protection Act (NREPA) – Part 31, Water Resources Protection

| PFAS                         | HNV* (ppt) | Established Date  |
|------------------------------|------------|-------------------|
| PFOS (Drinking Water Source) | 11         | March 2014        |
| PFOS                         | 12         | March 2014        |
| PFOA (Drinking Water Source) | 66         | Revised July 2022 |
| PFOA                         | 170        | Revised July 2022 |
| PFBS (Drinking Water Source) | 8,300      | July 2022         |
| PFBS                         | 670,000    | July 2022         |

\*Human Noncancer Value (HNV)

# Michigan PFAS Criteria – Groundwater

Natural Resources &  
Environmental Protection  
Act (NREPA) - Part 201

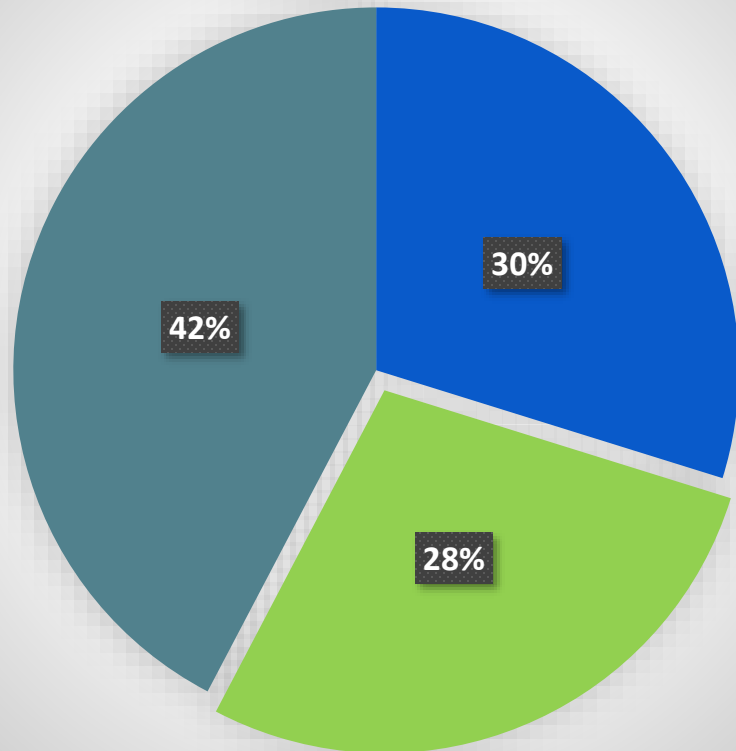
| PFAS    | Groundwater Protection Criteria (PPT) |
|---------|---------------------------------------|
| PFOA    | 8                                     |
| PFOS    | 16                                    |
| PFNA    | 6                                     |
| PFHxA   | 400,000                               |
| PFHxS   | 51                                    |
| PFBS    | 420                                   |
| HFPO-DA | 370                                   |

# Industrial Pretreatment Program PFAS Initiative

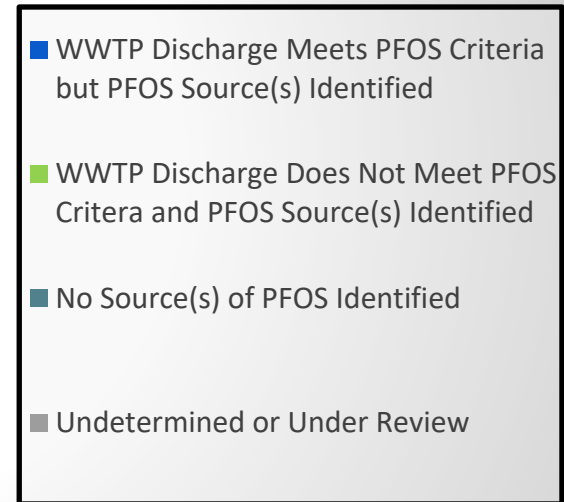
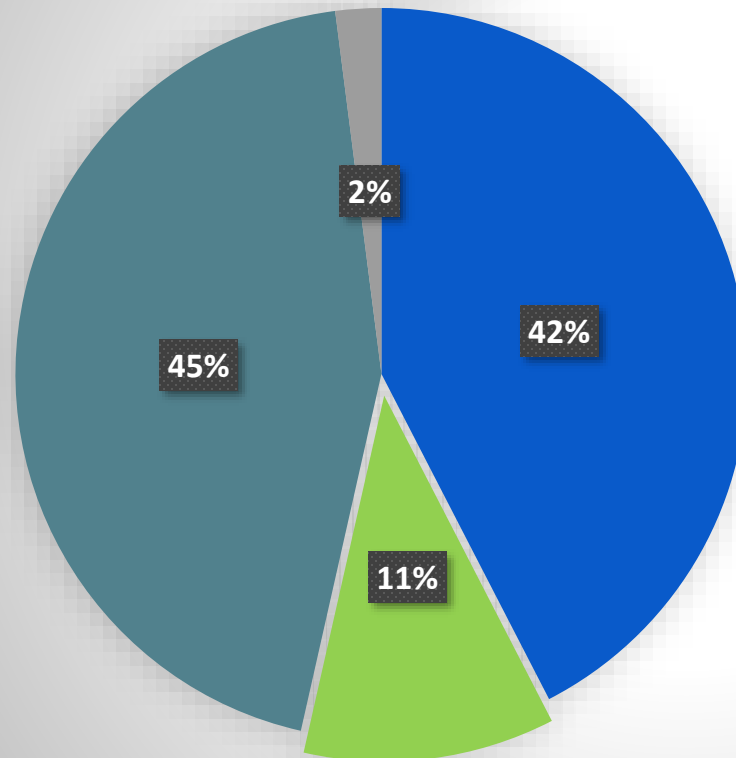
- February 2018 – 95 WWTPs required to screen Industrial Users
  - Evaluate Industrial Users with potential sources of PFAS
  - Follow-up sampling of probable sources if found
  - Sample WWTP effluent if sources > screening criteria (12 ppt PFOS)
  - Sample WWTP biosolids if WWTP effluent  $\geq$  50 ppt PFOS
  - Reports submitted 2018-2019
  - Ongoing Monitoring and Reporting for WWTPs that found PFOS

# IPP WWTP Discharge Compliance, PFOS Criteria

## December 2019



## December 2022



**Reductions  
in PFOS in  
Industrially  
Impacted  
Biosolids  
from  
WWTPs**

| <b>Municipal<br/>WWTP</b> | <b>2017/2018<br/>Biosolids<br/>PFOS (ppb)</b> | <b>2021<br/>Biosolids<br/>PFOS<br/>(ppb)</b> | <b>2022<br/>Biosolids<br/>PFOS (ppb)</b> | <b>2023 Biosolids<br/>PFOS (ppb)</b> | <b>PFOS<br/>Reduction<br/>Since IPP<br/>Initiative</b> |
|---------------------------|---|--|--|--------------------------------------|--|
| <b>WWTP #50</b>           | 983   | 140  | 3.5                                      | NA                                   | 99.6%  |
| <b>WWTP #14</b>           | 1060  | 120  | 86.7                                     | 27.2                                 | 97.4%  |
| <b>WWTP #57</b>           | 1680  | 33   | 30                                       | 23                                   | 98.6%  |
| <b>WWTP #54</b>           | 387   | 74/180                                       | 63                                       | NA                                   | 83.7%  |
| <b>WWTP #92</b>           | 2150  | 113  | NA                                       | NA                                   | 94.7%  |

\*Data received by May 8, 2023

# Municipal WWTPs\*

## NPDES PFAS Permitting Strategy

- **Effluent Limits for PFOS, PFOA and/or PFBS**
  - Permits issued after **October 1, 2021**
  - Monitoring with schedules to achieve compliance with PFOS/PFOA/PFBS limits
  - Corrective Action Plans in rare cases
- **Effluent Monitoring Requirements**
  - Monthly, Quarterly, or Annual
  - Based on sources and effluent quality
- **IPP WWTPs:**
  - Establish Local Limit(s)
  - Source Reduction/Control, Compliance and Enforcement under IPP
- **Non-IPP WWTPs:**
  - Minimization Plans if needed

\*IPP WWTPs; non-IPP EPA Majors;  
non-IPP with elevated biosolids



# March 2023: Revised Municipal NPDES PFAS Strategy

- Updates to [NPDES PFAS Permit Strategy](#)
  - Require 28 PFAS for effluent sampling
  - Non-IPPs with elevated PFOS biosolids sample 4x/5-year permit cycle
  - PMP requirement if triggered
  - Specified MiEnviro Portal form for reporting PFAS effluent results (in addition to DMR reporting if required)
  - Semi-annual status reports for Bin 2 WWTPs

# By The Numbers: Municipal NPDES Permits

- **5** WWTPs with PFOS effluent limits
- **115** WWTPs with PFAS monitoring
- **2** WWTPs with approved PFOS Local Limit
- **10** WWTPs developing PFOS Local Limit

# Municipal NPDES WWTPs

- EPA December 2022 memo - [Addressing PFAS Discharges in NPDES Permits](#)
- EGLE's Municipal NPDES PFAS Permit strategy...no major changes based on EPA's December 2022 Memo
- EGLE developed a memo comparing WRD's approach vs EPA's approach
- [EGLE memo](#) publicly available on EGLE and MPART websites

# Additional Information

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- **IPP PFAS Initiative:** [IPP PFAS Initiative Webpage](#)
- **Source Doc:** [Industrial Sources of PFOS to Municipal Wastewater Treatment Plants as identified through the Michigan Department of Environment, Great Lakes, and Energy Industrial Pretreatment program Per-and Polyfluoroalkyl Substances Initiative](#)
- **Fume Suppressant Study:** [PFAS in Fume Suppressant Products at Chrome Plating Facilities](#)
- **Summary Report:** [Initiatives to Evaluate the Presence of PFAS in Municipal Wastewater and Associated Residuals \(Sludge/Biosolids\) in Michigan](#)
- **Detailed Report:** [Evaluation of PFAS in Influent, Effluent, and Residuals of Wastewater Treatment Plants \(WWTPs\) in Michigan](#)
- **Field Summary and Technical Reports:** [EGLE Biosolids PFAS Webpage](#)
- **Permit Strategy:** [Municipal NPDES Permitting Strategy for PFOS and PFOA](#)
- **Industrial Direct Discharge/Storm Water Strategy:** [Compliance Strategy for Addressing PFAS From Industrial Direct Dischargers and Industrial Storm Water Discharges](#)
- **Biosolids Strategy:** [Land Application of Biosolids Containing PFAS Interim Strategy](#)
- **Groundwater Discharge Strategy:** [Compliance Strategy for Addressing PFAS from Public and Private Municipal Groundwater Discharges](#)
- **MPART:** <https://www.michigan.gov/pfasresponse/>

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