

## MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY (EGLE) IPP PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) INITIATIVE

- WWTP with required IPP Program
  - Identify Industrial Users with potential PFOA and PFOS sources
  - Sample probable sources
  - Require source reduction at confirmed sources
  - Monitor compliance and submit reporting
- Biosolids Interim Strategy Results
  - Source control is highly effective at reducing elevated concentrations
  - Overall PFOS and PFOA concentrations in effluent discharges and biosolids are decreasing
  - 90% biosolids in Michigan fall below mitigation threshold
  - No facilities with biosolids above industrially impacted threshold since 2021

*from MI EGLE Michigan's Interim Strategy for Land Application of Biosolids Containing PFAS presentation at 2024 Great Lakes PFAS Summit, Dec. 5, 2024.*

# PFAS TREATMENT TECHNOLOGIES

Stage	Media	Type	Examples
In Use	Liquid	Carbon Sorption	Granular Activated Carbon Sorption
		Ion Exchange Sorption	Anion Exchange Resin Sorption
		Membrane Filtration	Nanofiltration, Reverse Osmosis
		Foam Fractionation	Bubbling Air or Air and ozone
Under Evaluation and/or in Development	Liquid	Novel Sorbents	Polymers, Clays, Biochar
		Coagulation/Flocculation	Polymer addition and settling
		Redox Manipulation	Chemical reagents addition
		Physico-Chemical Destruction	Electrochemical, Sonochemical, Non-thermal Plasma
	Solid	Thermochemical Oxidative Processes	High temperature incineration, Supercritical Water Oxidation
		Non-oxidative processes	Gasification, Pyrolysis, Hydrothermal Carbonization, Hydrothermal Liquefaction

# TECHNOLOGY AND EMERGING CONTAMINANT RESOURCES

- NEWEA Contaminants of Emerging Concern (CEC) Resource Page  
<https://www.newea.org/about-us/committees/contaminants-of-emerging-concern-committee/cec-resource/>
- BioHub <https://neiwpcc.org/biohub/>
- New England Regional Pretreatment Coordinators Association <https://nerpca.org/>
- MI EGLE IPP PFAS Initiative and Biosolids Interim Strategy  
<https://www.michigan.gov/egle/about/organization/water-resources/industrial-pretreatment/pfas-initiative> <https://www.michigan.gov/egle/about/organization/water-resources/biosolids/pfas-related>
- Minnesota Pollution Control Association PFAS Studies and Reports  
<https://www.pca.state.mn.us/air-water-land-climate/pfas-studies-and-reports>
- Wisconsin Department of Natural Resources draft PFOS and PFOA minimization plan guidance  
[https://dnr.wisconsin.gov/sites/default/files/topic/Wastewater/DRAFT\\_PFOSandPFOA\\_MinimizationPlanExpectations.pdf](https://dnr.wisconsin.gov/sites/default/files/topic/Wastewater/DRAFT_PFOSandPFOA_MinimizationPlanExpectations.pdf)