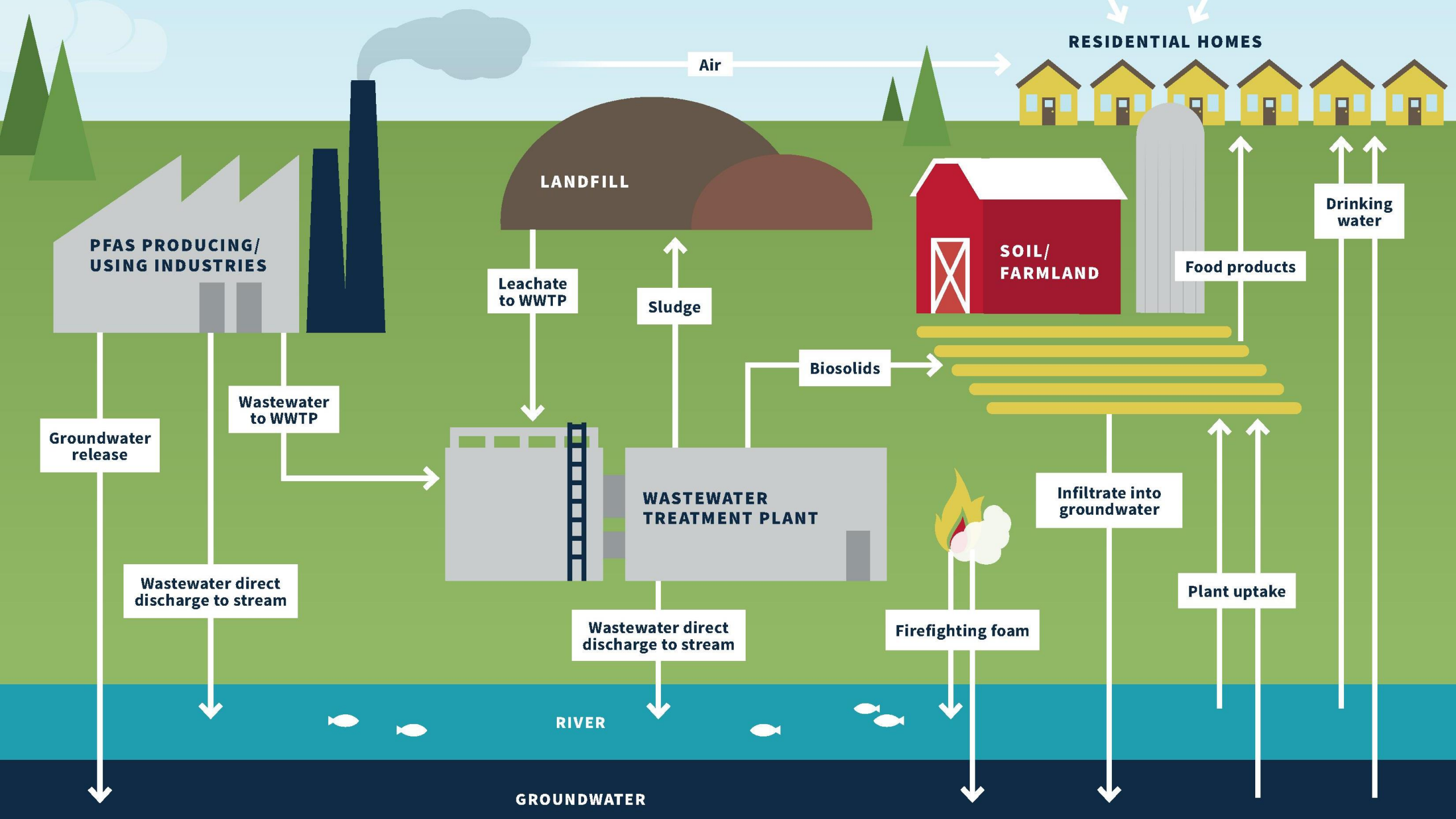


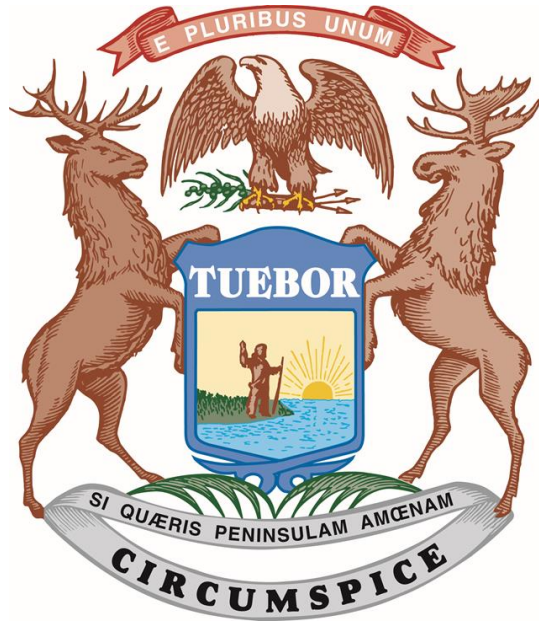
MPART 2021

AWMA/ELS Virtual Fall Joint Conference
November 10, 2020

Steve Sliver, Executive Director
Michigan PFAS Action Response Team
(517) 290-2943
SliverS@Michigan.gov



Michigan PFAS Action Response Team (MPART)



- Executive Order 2019-03
- Unique multi-agency approach
- Directs implementation of state's action strategy
- Coordinates with local and federal governments and stakeholders
- Data-driven and science-based
- Transparent

MI PFAS Standards



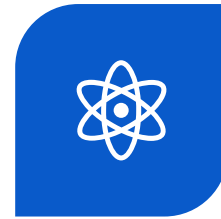
ENABLE
INVESTIGATIONS
AND RESPONSES



HEALTH-PROTECTIVE



DATA-DRIVEN



SCIENCE-BASED



STATE-LED

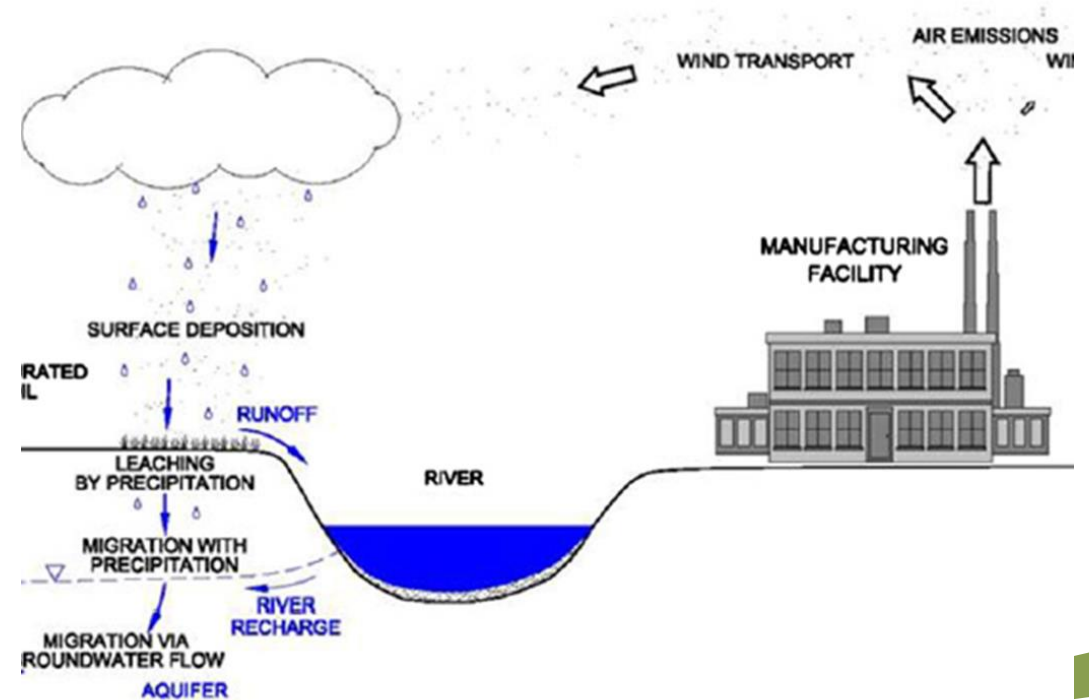


EVOLVING

Air Toxics Screening Levels

- Part 55
- Initial Threshold Screening Levels
- $0.07 \mu\text{g}/\text{m}^3$ PFOA
- $0.07 \mu\text{g}/\text{m}^3$ PFOS
- $1 \mu\text{g}/\text{m}^3$ 6:2 FTS (proposed)*

*Accepting comments until 11/17/20
www.Michigan.gov/air





Surface Water Quality Standards

- Part 31
- 12 ppt PFOS (11 ppt DW source)
- 12,000 ppt PFOA (420 ppt DW source)

Michigan's Drinking Water Standards

- August 3, 2020
- Maximum Contaminant Levels (MCLs)
- 2,700 water systems

Compound	MCL	EPA Recommendation
PFNA	6 ppt	NA
PFOA	8 ppt	70 ppt combined
PFOS	16 ppt	
PFHxS	51 ppt	NA
GenX (HFPO-DA)	370 ppt	NA
PFBS	420 ppt	NA
PFHxA	400,000 ppt	NA

7 MCLs ≠ 7 Cleanup Criteria

- Groundwater cleanup criteria already in rule

Compound	Prior to 8/3/20	After 8/3/20
PFOA	70 ppt combined	8 ppt
PFOS		16 ppt

- Rulemaking necessary for other 5 MCLs to become groundwater cleanup criteria
- Important for how we define a PFAS site

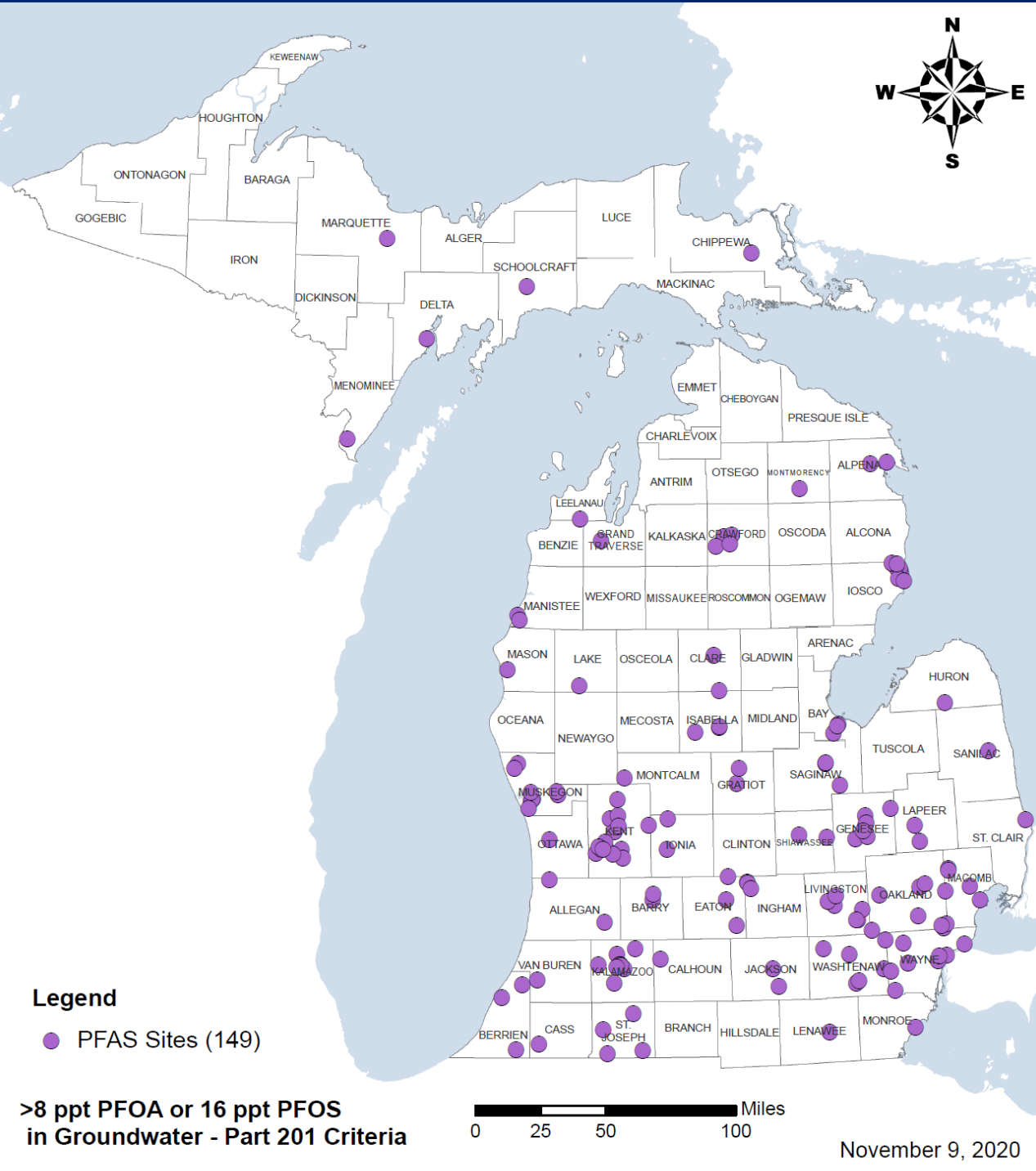


Cleanup Standards

- Part 201
- Groundwater cleanup criteria
 - 8 ppt PFOA
 - 16 ppt PFOS
 - GSI per water quality standards
- PFAS Criteria Rulemaking Information Session
11/16/20

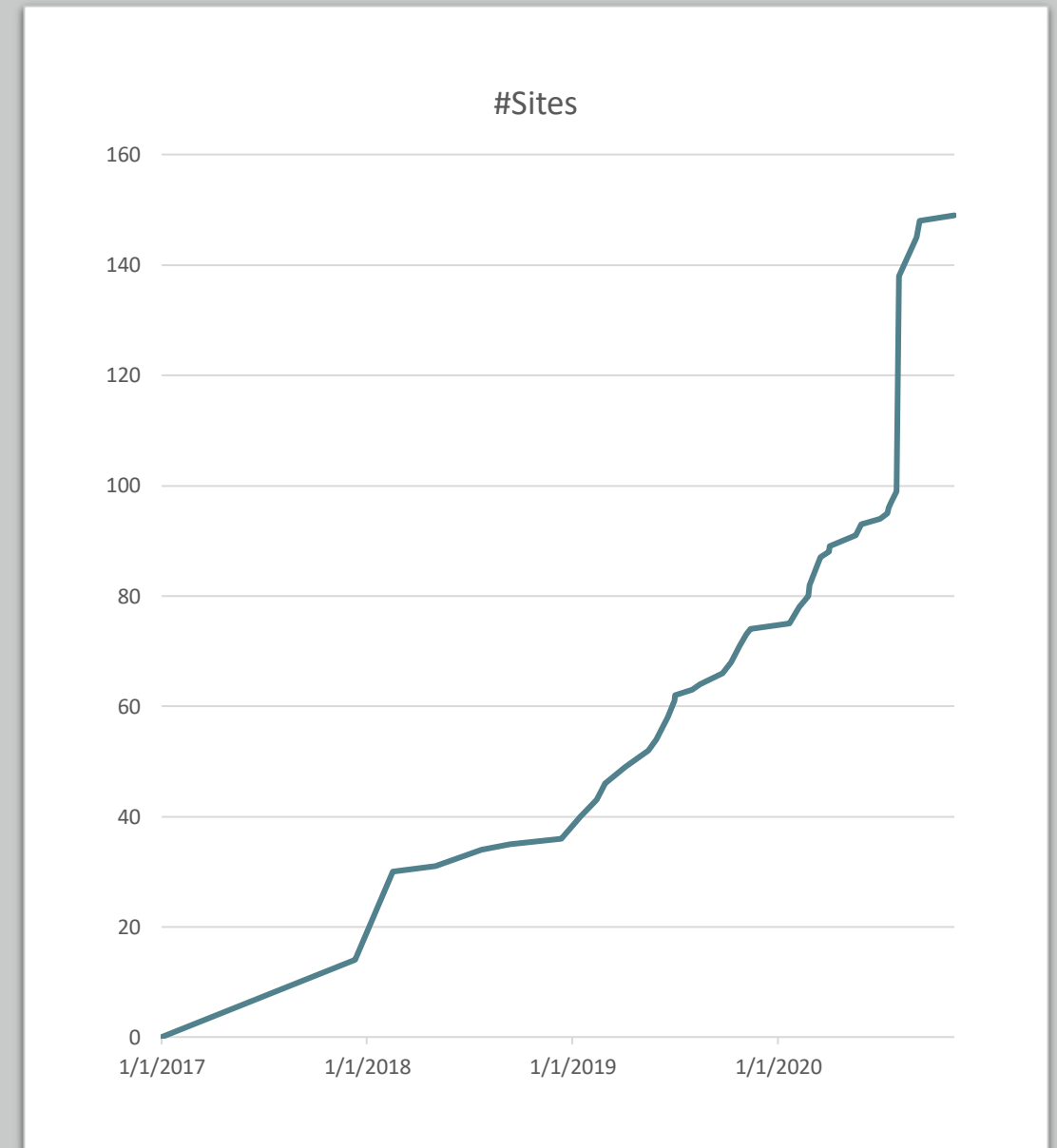
PFAS Sites

- Exceed groundwater cleanup criteria
- Prioritized investigations based on known or suspected sources, potential for exposure
- Protect drinking water pathway
- Pace of new discoveries likely to increase in 2021



Faster Pace of Discovery?

- Experience in where to investigate
- Adoption of lower and more criteria
- Implementation of MCLs
- Testing initiated by industry
 - Baseline environmental assessments
- Self-initiated residential well testing
- \$4M grants to airports to investigate





Site or Not a Site?

- Bigger challenge with lower concentrations
- Does 1 result make a site a site?
- Factors
 - Concentration
 - Can it be replicated
 - Type of source
 - Hydrogeology
 - How well is plume characterized
- MPART Groundwater Workgroup developing guidance for 2021



Community Outreach

- Robust
 - Local officials
 - Town halls
 - Web site
- Adapting
- Citizens Advisory Workgroup

Residential Well Initiative

- One million residential wells
- Most not within MPART investigation area
- Help residents make informed decisions about their risk and what to do about it
- Avoid creating unwarranted fear

MICHIGAN

DEQ: Harmful PFAS might contaminate more than 11,000 sites statewide

Keith Matheny Detroit Free Press

Published 6:00 a.m. ET Jul. 30, 2018 | Updated 9:18 a.m. ET Jul. 30, 2018

[View Comments](#)





Residential Well Information and Tools

- PFAS 101
- Well construction and groundwater basics
- Known and potential PFAS sources
- Testing
- Interpreting results
- Reducing exposure

Great Lakes PFAS Task Force

- June 2019 Resolution
- Share information and coordinate
- 3 workgroups report in 2021
 - Air Quality
 - Land Application
 - Fish and Wildlife

GREAT LAKES
ST. LAWRENCE
GOVERNORS
& PREMIERS



Coordinating with National Associations

- Environmental Council of States (ECOS)
 - Interstate Technology & Regulatory Council
- Association of State and Territorial Solid Waste Management Officials (ASTSWMO)
 - Contaminants of Emerging Concern (CEC) Steering Committee
 - Multi-state coordination
 - Multi-program coordination
 - State CEC program guidance



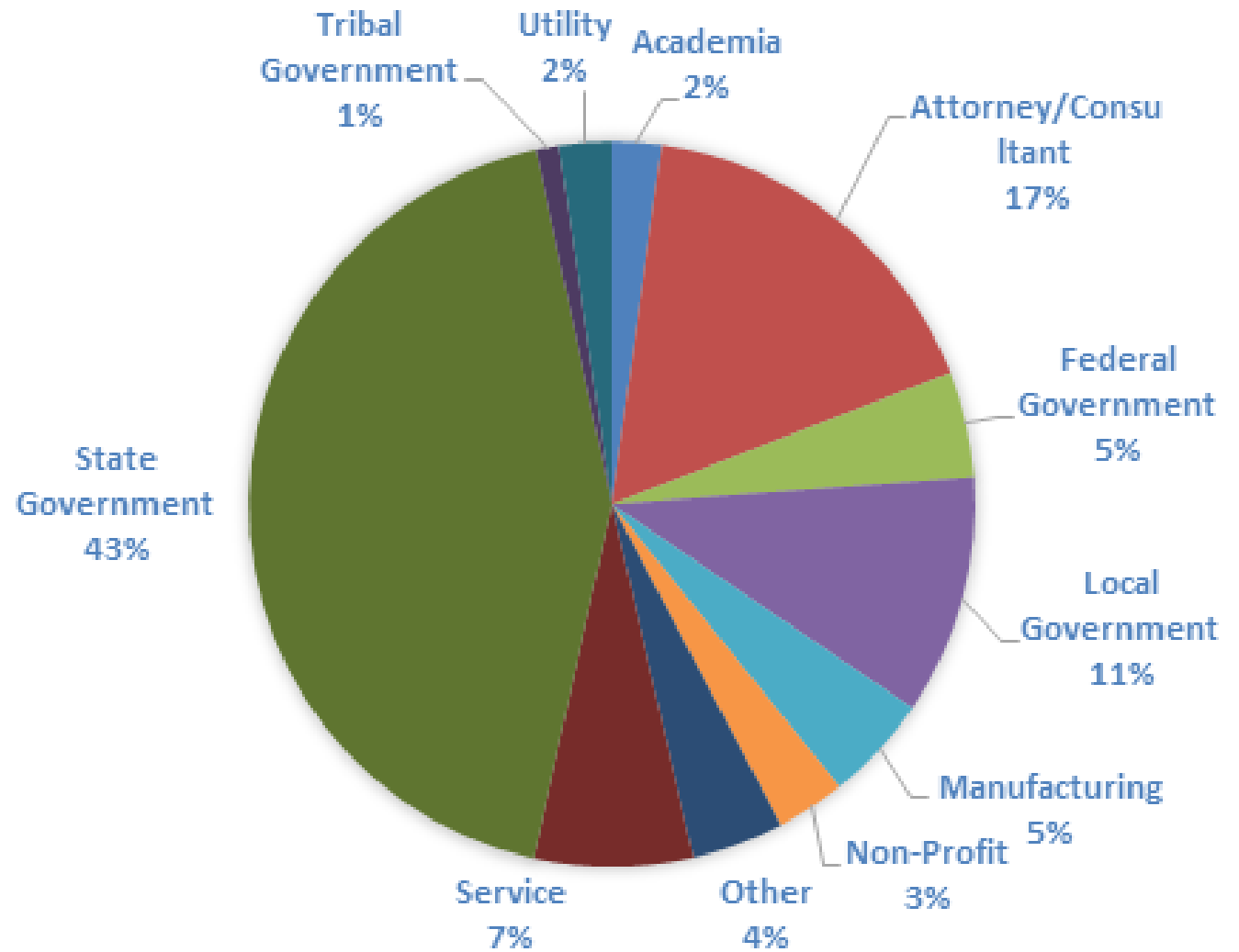


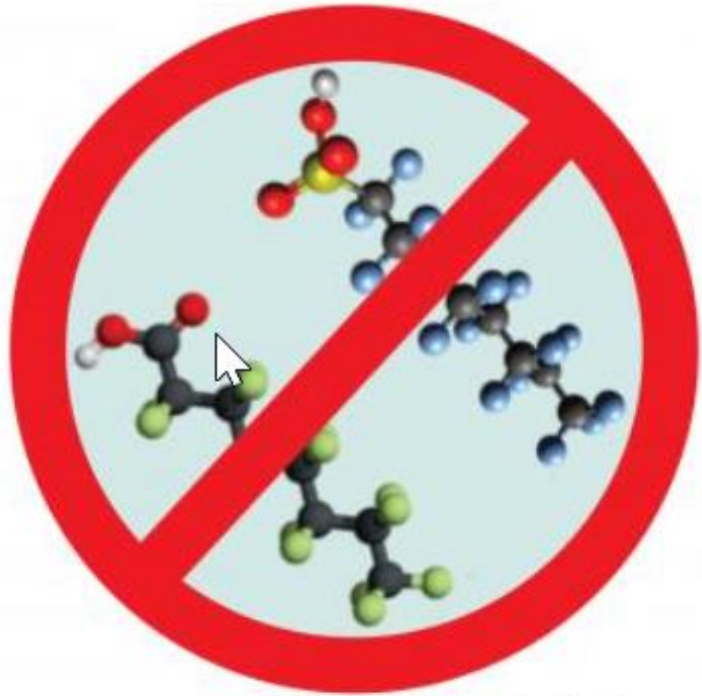
Treatment Technology Roundtable

- Network
 - Industry
 - Academia
 - Utilities
 - Regulators
 - Consultants
- Appropriate application of available technology
- Identify research gaps
- Great Lakes Virtual PFAS Summit

Summit Attendees

- 4 countries
 - US
 - Australia
 - Canada
 - Germany
- 36 states





Innovative Ways to Destroy PFAS

PER- AND POLYFLUOROALKYL SUBSTANCES

EPA Challenge

- Non-thermal technologies for AFFF
- Partners
 - DOD
 - ECOS
 - Michigan EGLE
 - Colorado DPHE
- November 23, 2020 deadline
- <https://www.epa.gov/innovation/innovative-ways-destroy-pfas-challenge>



Landfills and WWTPs

- Facilitating information sharing and cooperation among waste and wastewater industry
- Challenge of PFAS in leachate
 - Unavoidable
 - Treatment options limited
- Waste stabilization studies
- Mass load approach?
 - Timing of deliveries
 - Local limits

Studies and Research in 2021

- Biosolids
 - Report on initial screening value for industrial impacted
 - Expanded monitoring
- Statewide soil survey
- Plant uptake
 - Home gardening project
 - Crops
- Point of use filter performance



TOPICAL WORKGROUPS

The MPART Coordination Structure includes topical workgroups that manage PFAS initiatives, analysis, and research across state agencies. Each topical workgroup is led by a member of the broader Technical Advisory Workgroup, which helps to ensure coordination across the topical workgroups. As of May 7, 2020, 16 of these multi-agency topical workgroups have been established. Webpages are being created to share their mission, accomplishments, and activities going forward.



Air Quality Workgroup



Airport Workgroup



Animal Health & Food Safety Workgroup



Biosolids Workgroup



Drinking Water Workgroup



Fire Station Workgroup



Human Health Workgroup



Lab Standards Workgroup



Landfills Workgroup



Pollution Prevention Workgroup

Details on the Web



Surface Water Workgroup



Treatment Workgroup



Wastewater Workgroup

MICHIGAN PFAS ACTION RESPONSE TEAM (MPART)

www.Michigan.gov/PfasResponse



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

