Michigan PFAS Action Response Team (MPART)

April 28, 2022

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MPART UPDATES:

Agenda:

1. Webpage & PFAS GIS Maps
2. AFFF video training for firefighters across the state
3. Public health - PFAS in Firefighters of Michigan Surveillance (PFOMS)
4. Airport Grants
5. Eat Safe Fish Guide pending May 2022
6. New Minimum Analyte list
7. Biosolids – Interim Strategy
8. **New MPART Website design**

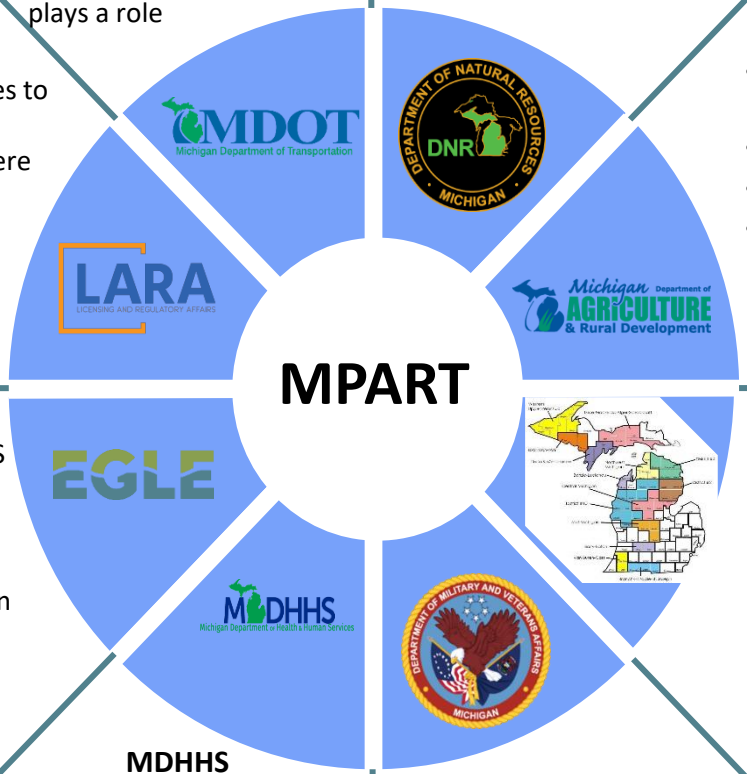
MPART Coordination of Roles

MDOT
- Collaborating with MPART to investigate human exposure to PFAS AFFF foam at airports where MDOT plays a role

DNR
- Studying impacts on fish and wildlife
- Partner on *Eat Safe Fish and Wild Game*

LARA
- LARA's Childcare Licensing Program
- Partnering on Occupational Exposures to fire fighters
- Partnering on PFAS response anywhere fire response has or can occur
- Promoting effective firefighting solutions that reduce the harm from PFAS AFFF

MDARD
- Protect the commercial food supply
- Protect domesticated animals
- Promote healthy Agricultural
- Partner on investigations



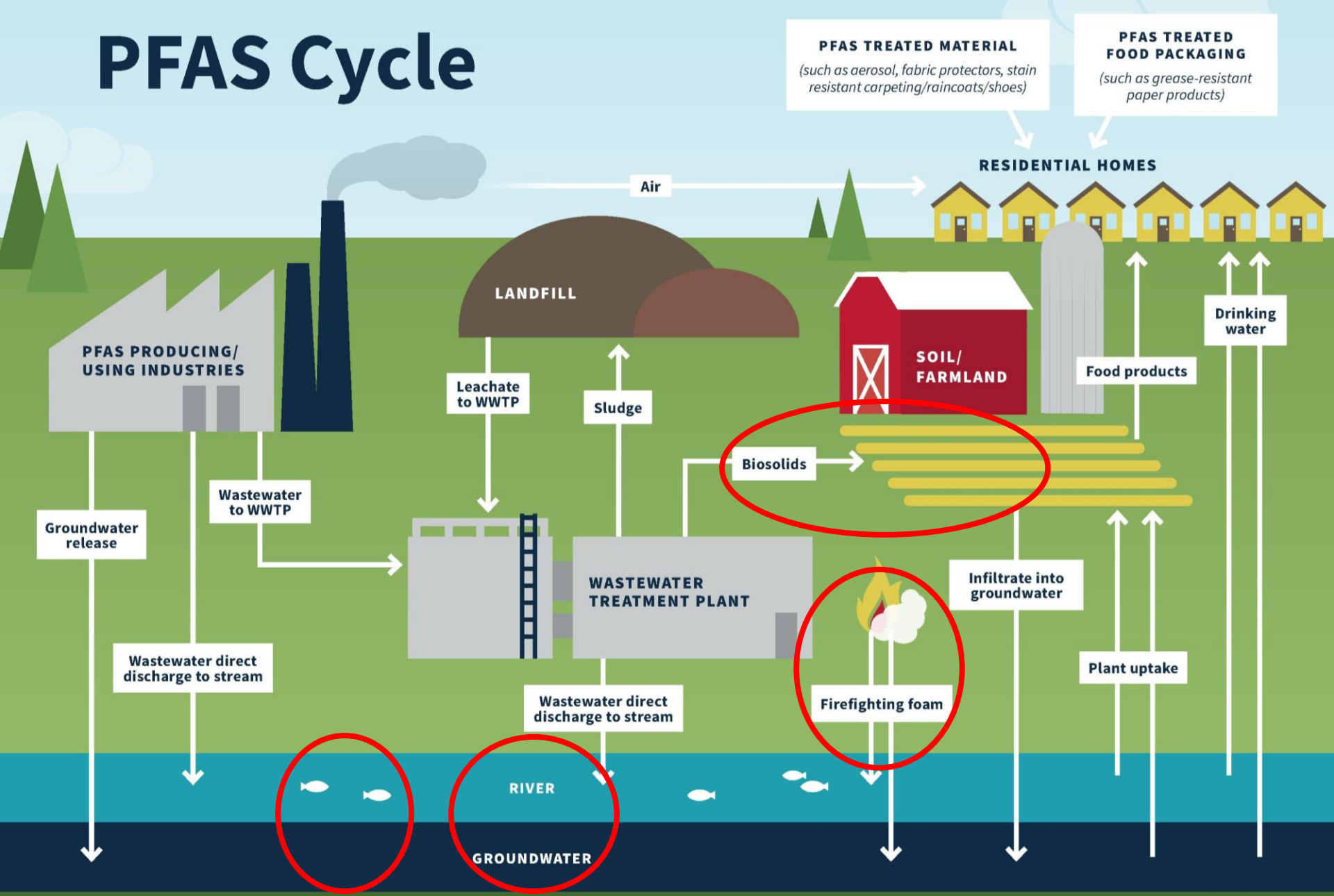
EGLE
- Lead for regulatory oversight of PFAS releases, investigations and responses
- Identify and characterize the source and extent of local release for orphan sites
- Coordinate to obtain necessary data to understand risk to public health and environment
- Leading the clean water and environmental justice advocacy

Local Public Health
- Trusted Resource for health in the community
- Knowledge appropriate staff to work with concerned community members
- Operate according to the Michigan Public Health Code

MDHHS
- Partnering on clean water & EJ
- Identify & characterize human contact with PFAS
- Assess human exposure, determine risk & harm

DMVA
- Collaborating on PFAS exposure investigations on current and former military properties

PFAS Cycle



EGLE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

800-662-9278 | *Michigan.gov/PFASresponse*

Rev. 09/2020

Sites and Areas of Interest

Sampling in Lakes and Streams

Firefighting Foam and PFAS

Wastewater Treatment Plants / Industrial Pretreatment Program

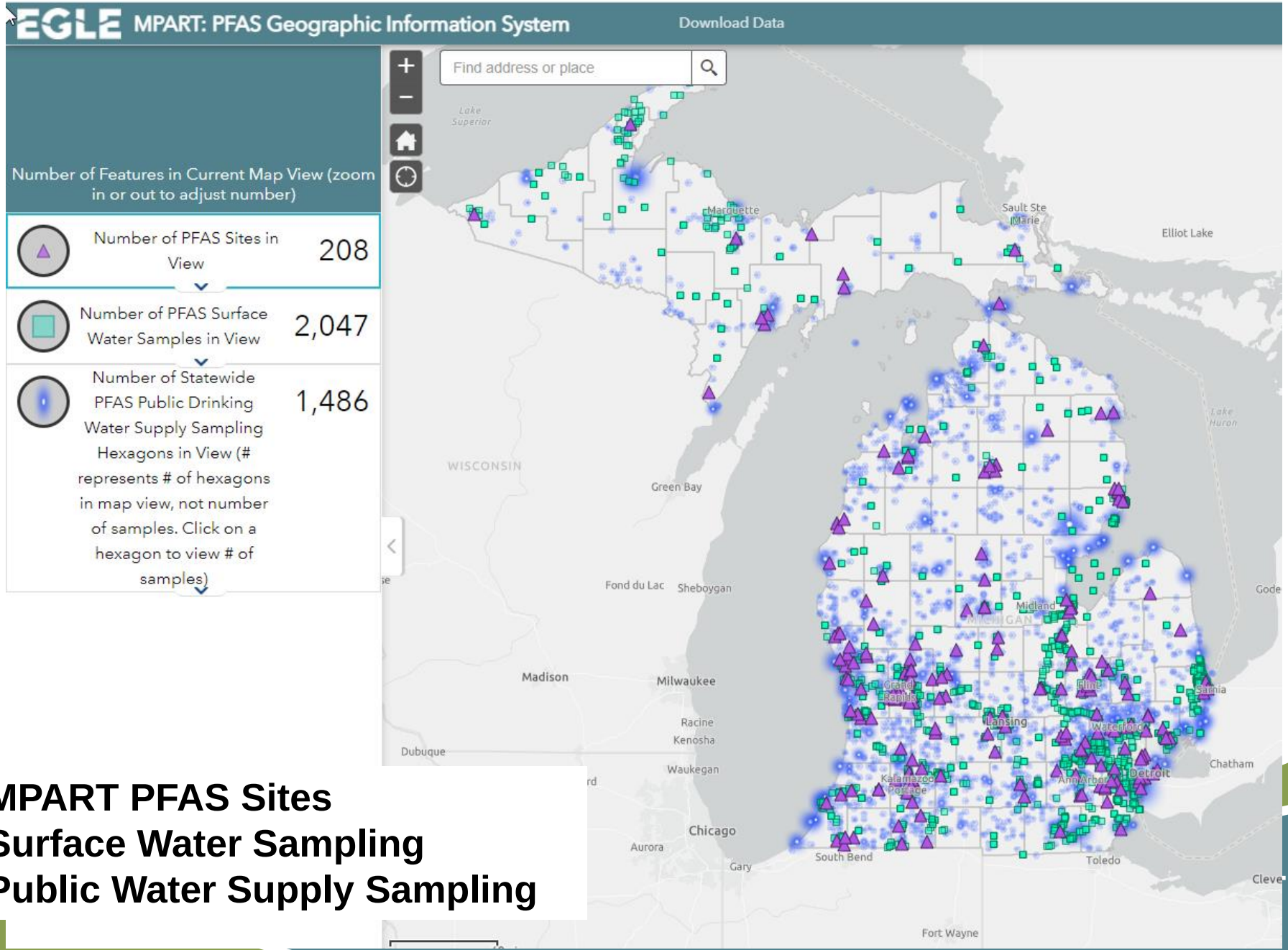
Sampling Guidance

Sampling Analyte List

New MPART Website Design

MPART

PFAS Geographic Information System



- **MPART PFAS Sites**
- **Surface Water Sampling**
- **Public Water Supply Sampling**

Michigan Firefighter AFFF PFAS Training Video

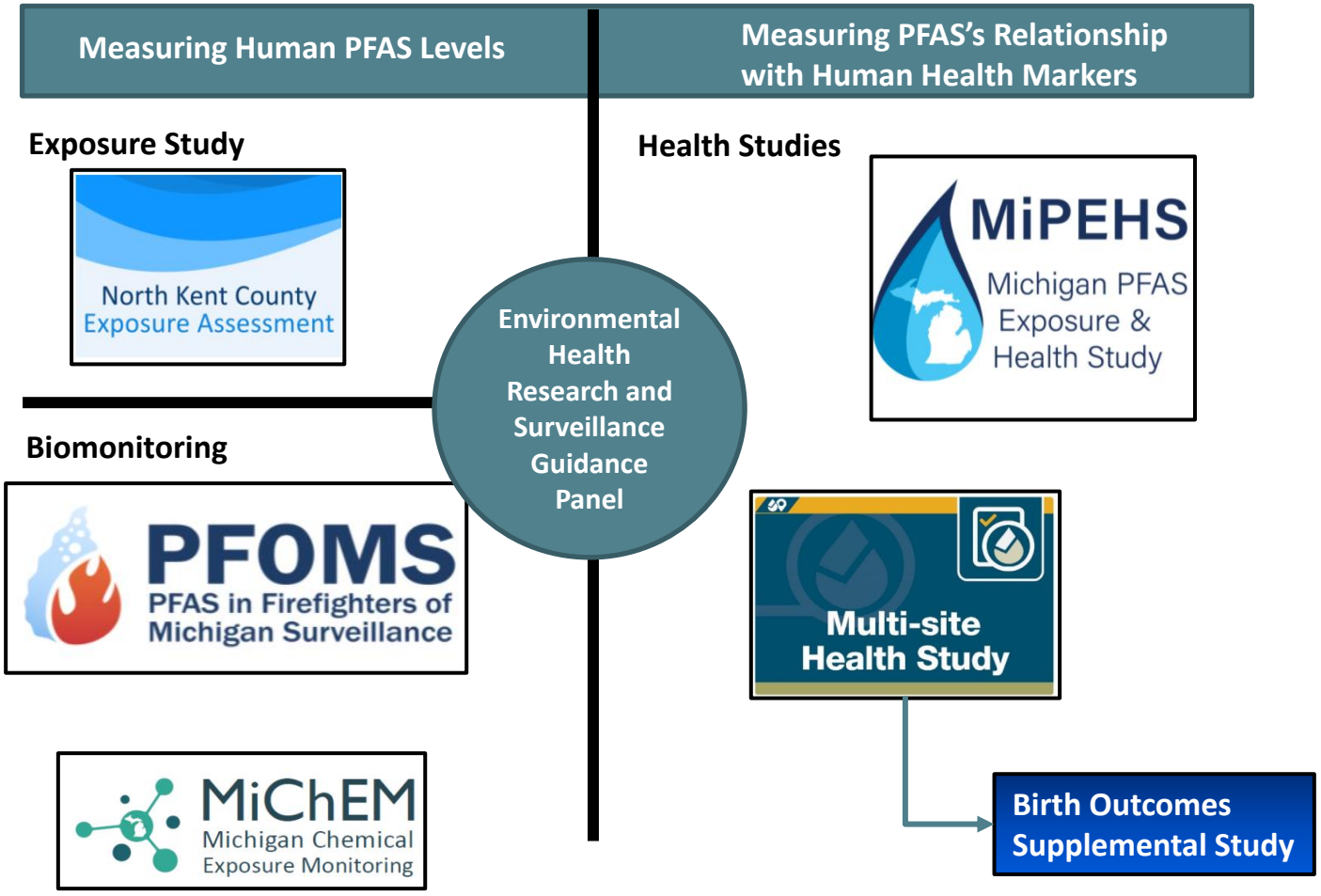
Michigan Firefighter Class B AFFF PFAS Training

93 views • Apr 6, 2022

Subscribe to Michigan EGLE YouTube Channel
https://www.youtube.com/c/MichiganEGLE/videos

https://www.youtube.com/watch?v=PGPFhPgzVgM

Public Health Strategy – Investigative Approach



Fire Departments

92	39	33	30
Invited to participate	Enrolled	Visits completed	Completed firefighting foam survey

Fire Stations

81	71
Enrolled fire stations	Water sampling appointments completed

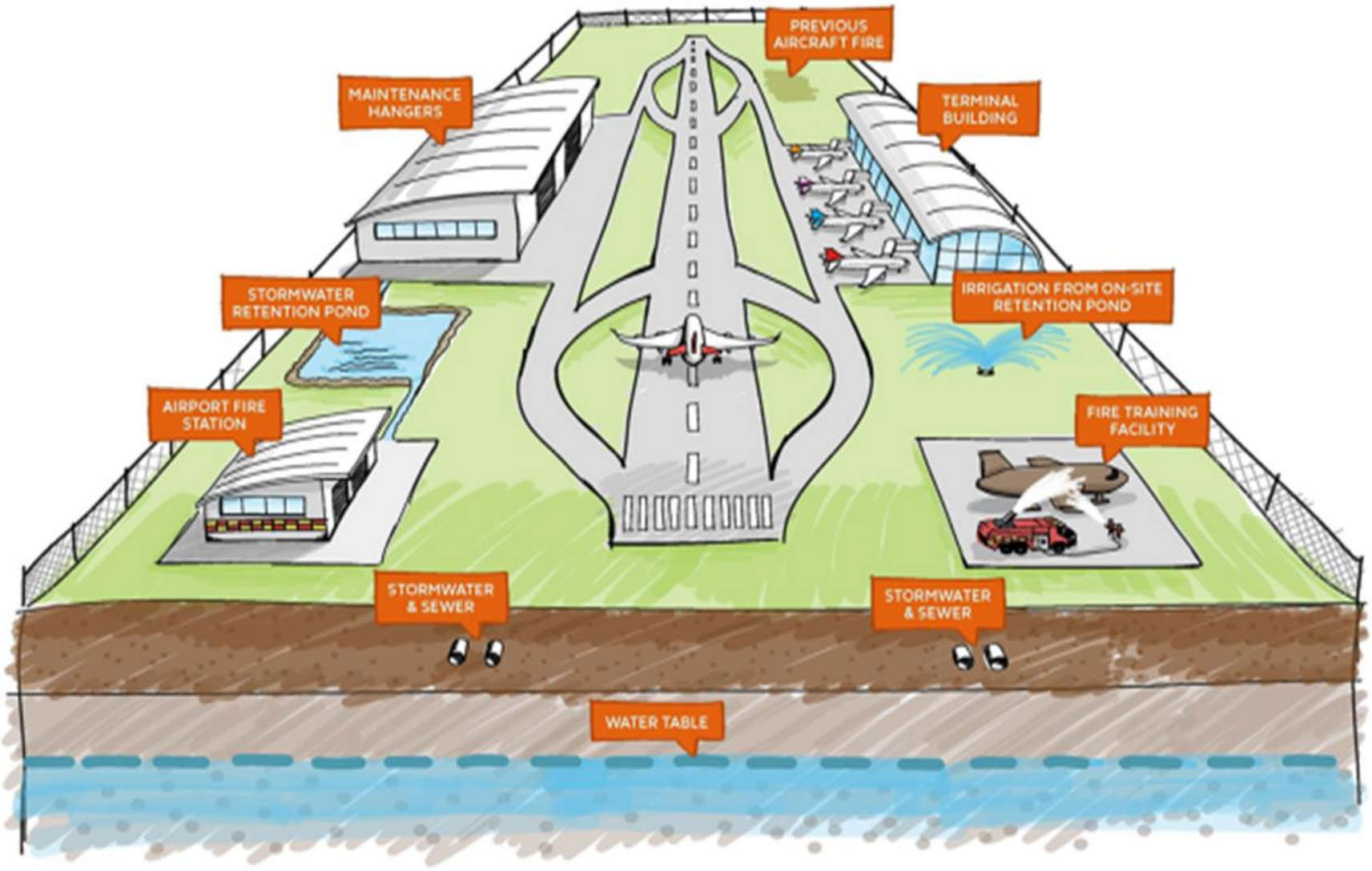
Firefighters

904	539	492	485
Invited to participate from enrolled fire departments	Enrolled	Completed the survey	Provided a blood sample

To talk to someone about participating in the PFOMS project, please call the PFOMS staff at 844-464-7327.

https://www.michigan.gov/mdhhs/safety-injury-prev/environmental-health/Topics/DEHBio/pfoms

Airport Grants



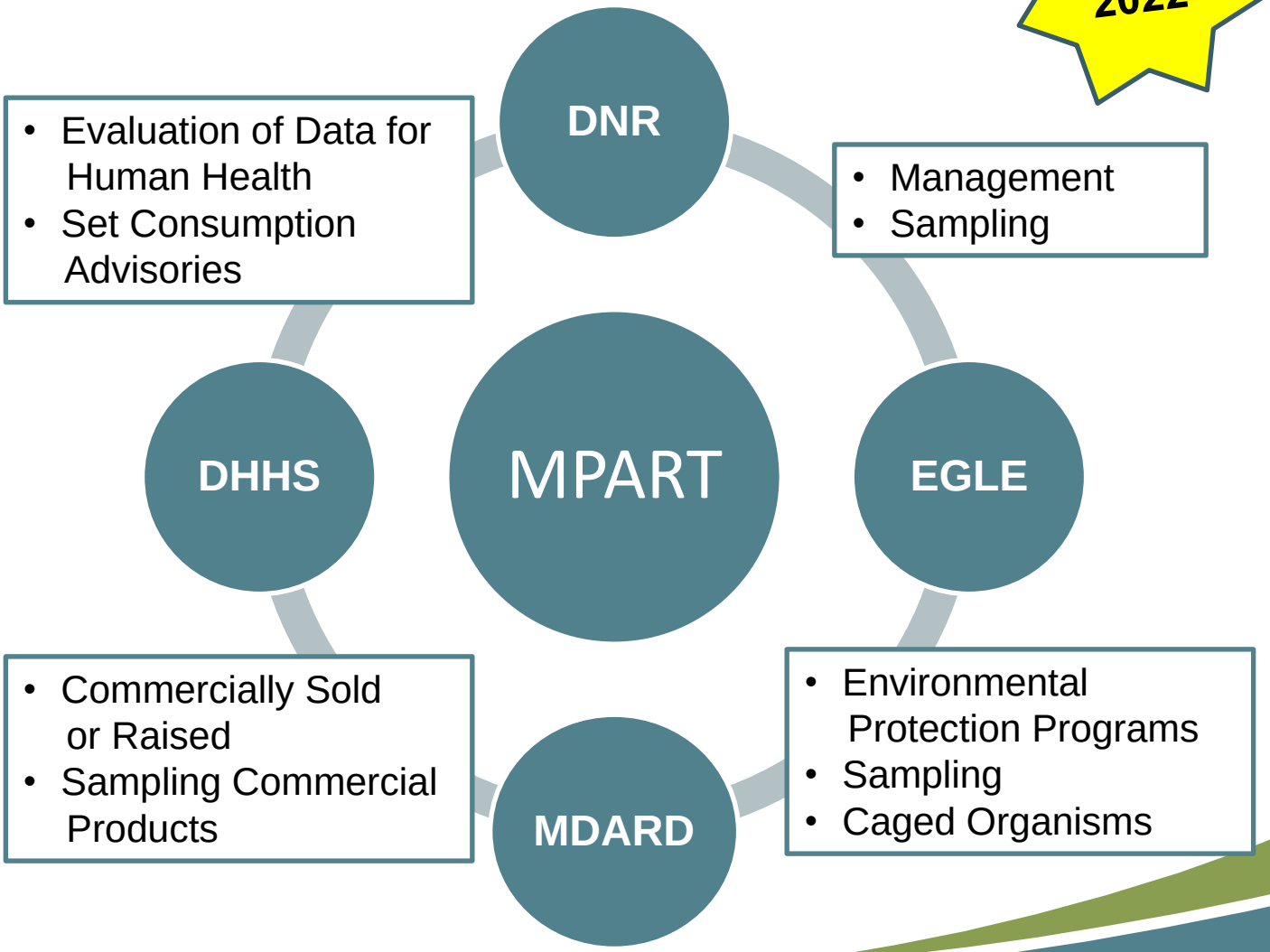
AECOM

Airport Statistics
September 2020 - March 2022

- Airport MDOT grants: Phase I and II of investigation work including soils, groundwater and surface water/storm water sampling.
- 19 airports participated (large commercial facilities)
- Most airports had contamination in storm water/surface water
- Most had groundwater contamination
- EGLE did precautionary residential drinking water samples at 10 airports – sampled over 300+ drinking water wells

2022 EAT SAFE FISH GUIDE

May 2022



Screening Levels for PFOS in Game and Fish

Meal Category	Screening Value Ranges
Meals per month	ng/g (ppb)
16	≤ 9
12	> 9 to 13
8	>13 to 19
4	>19 to 38
2	>38 to 75
1	>75 to 150
6 meals per year	>150 to 300
Do Not Eat	≥300

PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES (PFAS) RECOMMENDED MINIMUM LABORATORY ANALYTE LIST

Below is the minimum laboratory PFAS analyte list for analysis of fish, deer, and other animals, drinking water, groundwater, surface water, soil, wastewater effluent, and landfill leachate samples collected by Michigan's Departments of Environment, Great Lakes, and Energy, Health and Human Services, Agriculture and Rural Development, and Natural Resources. The recommended minimum analyte list for groundwater, surface water, and wastewater is the list found under EPA Method 8327. The minimum analyte list for the testing of fish, deer and other animals is marked by the fish icon.

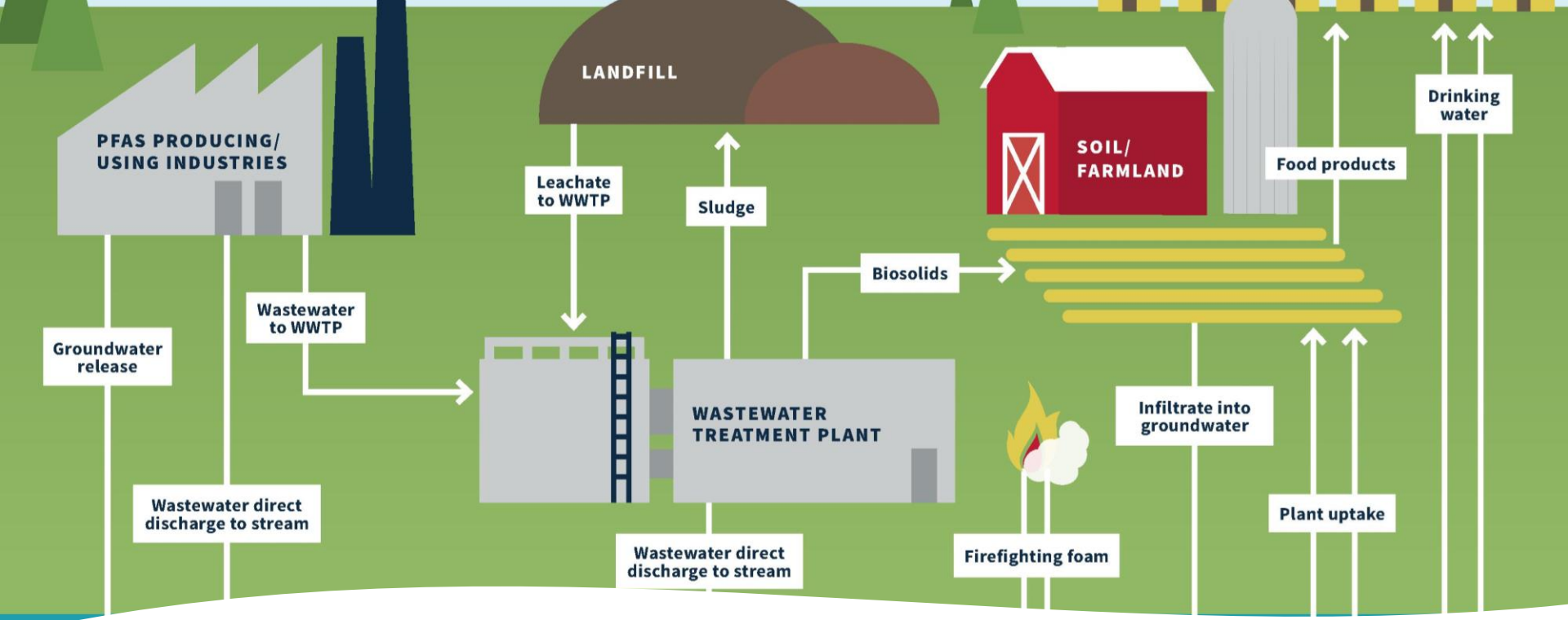
This minimum analyte list was developed based on the potential for these chemicals to be found in Michigan, the availability of the chemical standards used for testing, and the ability of available laboratories to test for these PFAS. This list includes PFAS that can be tested for in drinking water using United States Environmental Protection Agency (USEPA) Method 537.1, which is the only method that should be used when analyzing drinking water samples. Other testing methodology such as isotope dilution may be used to test for PFAS in other media (not drinking water). EPA Method 8327 has undergone multi-lab validation and have been published under the Resource Conservation and Recovery Act (RCRA) program and is used by the EGLE laboratory to test surface water, groundwater, and wastewater.

NOTE: Draft EPA Method 1633 is currently undergoing multi-laboratory validation as part of the Clean Water Act (CWA) method approval process. When a final PFAS analytical method for wastewater is published in 40 CFR Part 136, this method will be required for sampling conducted under the CWA, including National Pollutant Discharge Elimination (NPDES) permits. Until EPA Method 1633 is approved, an isotope dilution method (sometimes referred to as Method 537 modified) or ASTM Method D7979 may be used.

This list is not exhaustive of PFAS in Michigan's environment.

The fish icon (🐟) indicates compounds that are also currently being tested in fish tissue by the Department of Health and Human Services Laboratory.

Acronym / Analyte Name	Molecular Formula	CAS Number	Drinking Water Only USEPA Method 537.1	EGLE Lab – Groundwater, Surface Water, Wastewater EPA Method 8327	For Clean Water Act – NPDES (i.e., wastewater, sludge, tissue, soil) Draft EPA Method 1633	
PFTeDA Perfluorotetradecanoic acid	$C_{13}F_{27}COOH$	376-06-7	X	X	X	🐟
PFTrDA Perfluorotridecanoic acid	$C_{12}F_{25}COOH$	72629-94-8	X	X	X	🐟
PFDoA Perfluorododecanoic acid	$C_{11}F_{23}COOH$	307-55-1	X	X	X	🐟
PFUnA Perfluoroundecanoic acid	$C_{10}F_{21}COOH$	2058-94-8	X	X	X	🐟

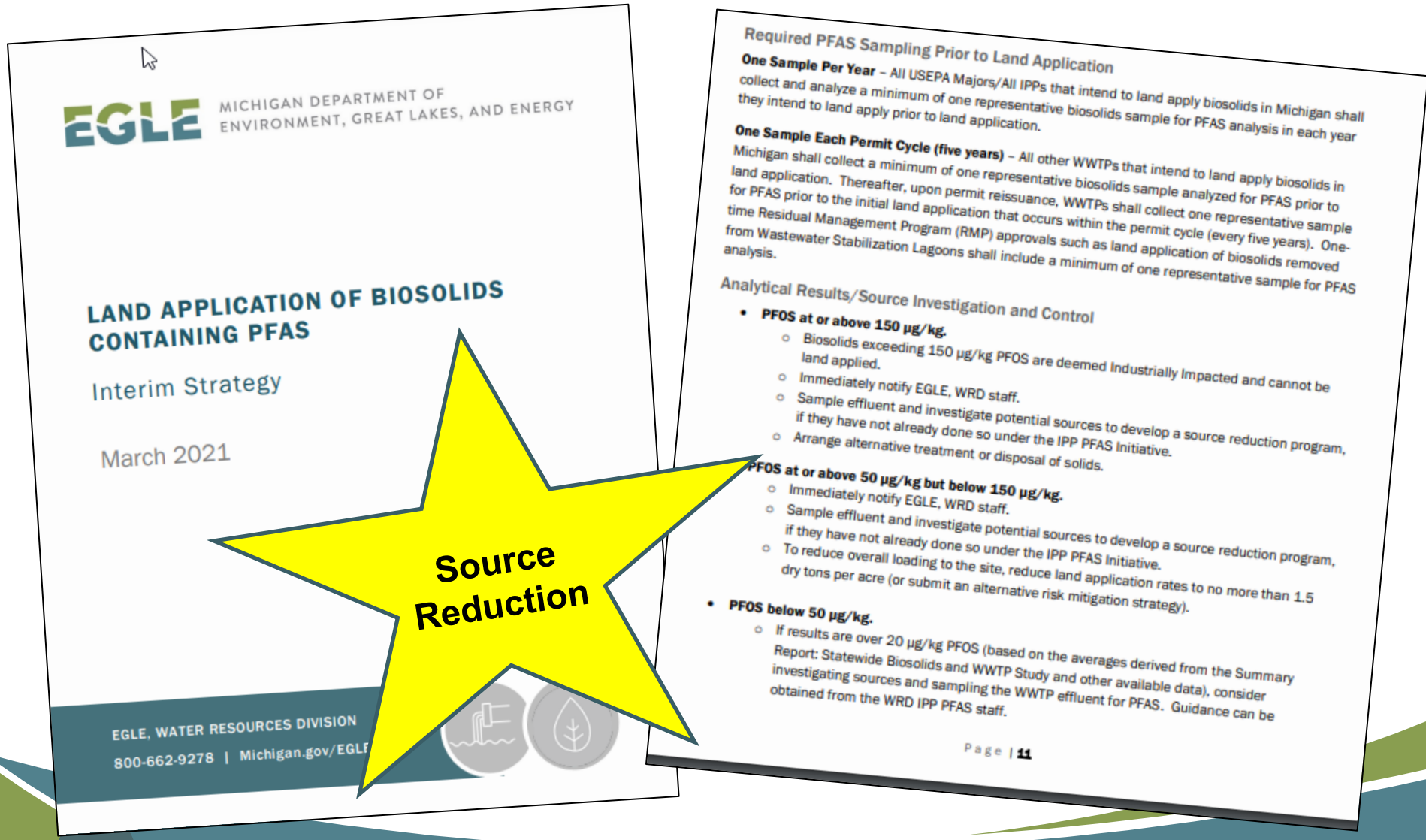


Proactive Evaluations

Evaluation of Sectors of PFAS Users/Receivers:

- Platers
- Airports
- Wastewater Treatment Plants
- Landfills
- Military Bases
- Tanneries
- *Fire Training Centers*

Biosolids Interim Strategy



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Biosolids Interim Strategy Status

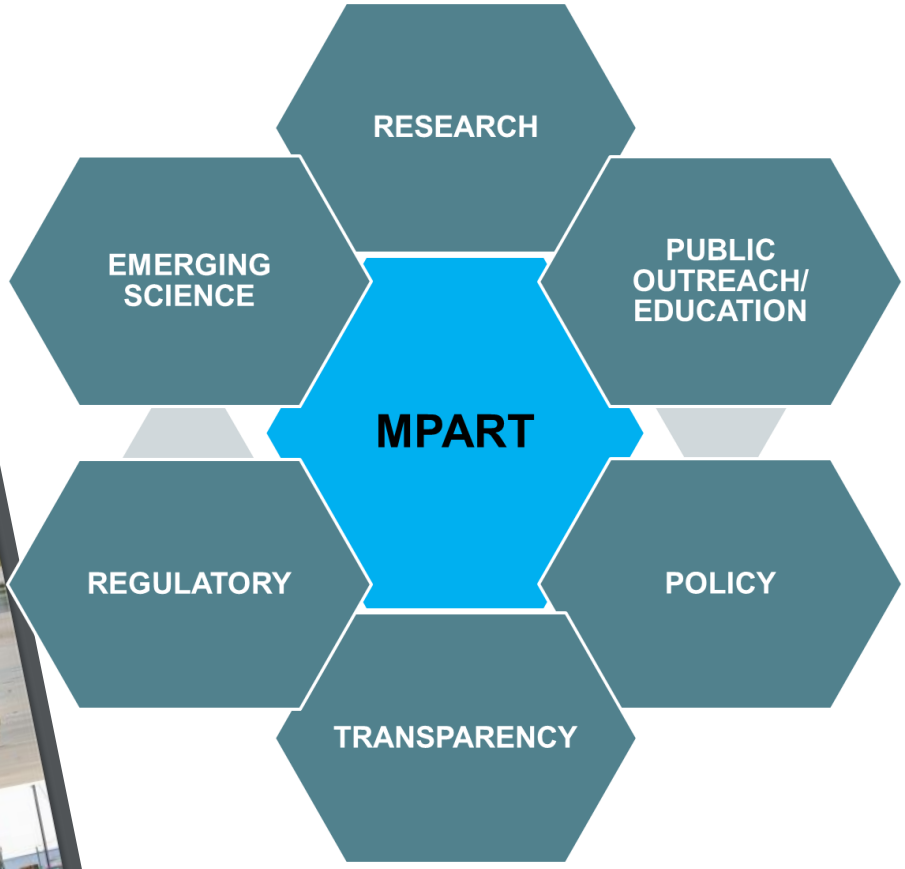
Based on the PFOS results, the WWTPs are placed in the following tiers:

1) Equal to or Below 20 ppb;
2) 21 ppb – 50 ppb; are *recommended* to sample effluent and identify sources
3) 51 ppb -149 ppb; *required* to sample effluent, identify sources, and **reduce** their land application rate.
4) Equal to or Above 150 ppb **are not** permitted to land apply biosolids

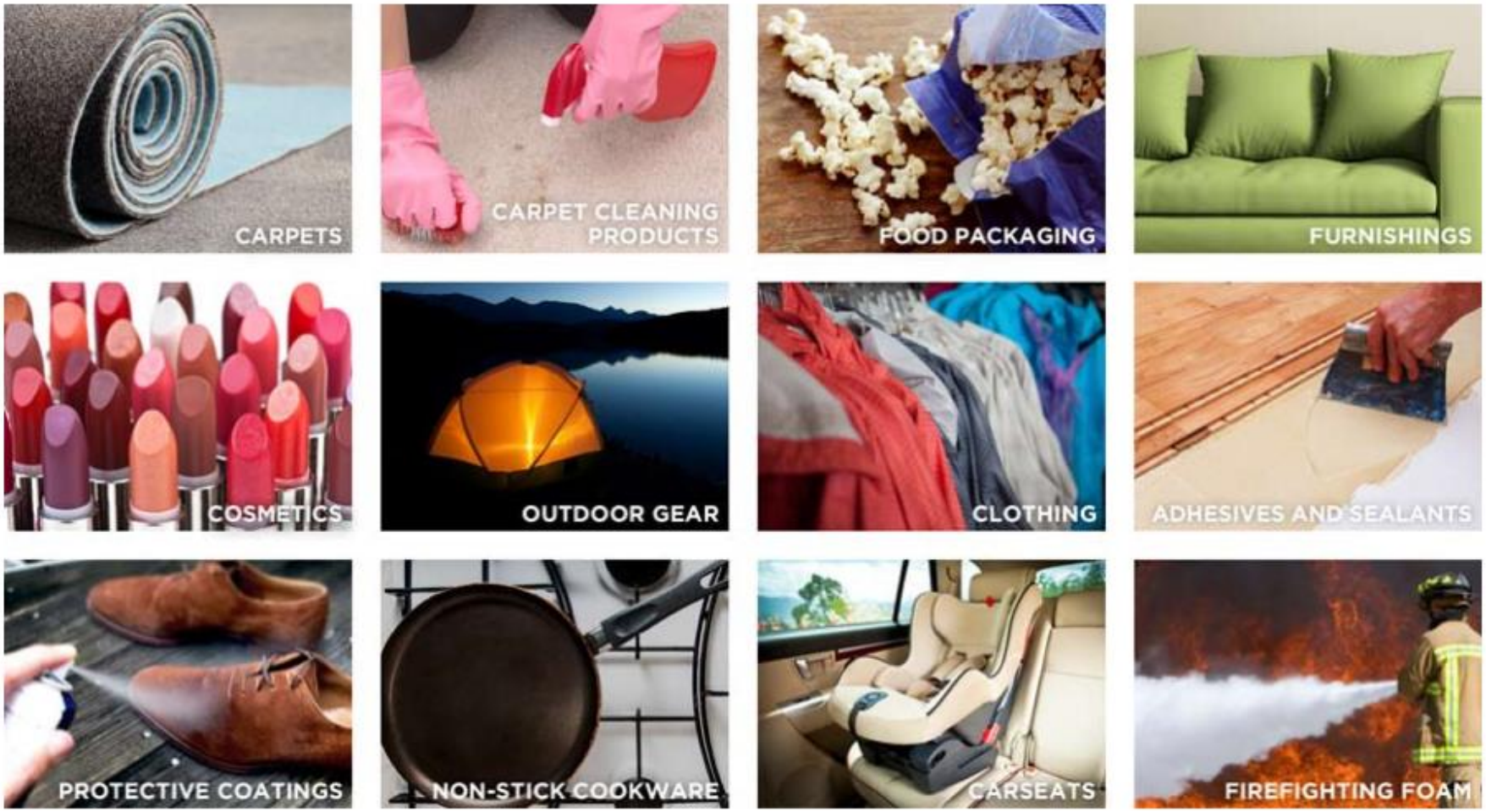
<u>For 2021-2022 Combined:</u>

- 207 results received by WRD from 170 WWTPs
- 168 WWTPs equal to or < 20 ppb
- 30 WWTPs between 21 – 50 ppb
- 8 WWTPs between 51 -149 ppb
- 1 WWTP above 150 ppb
- **Average: 14.1 ppb, Median: 9.2 ppb**

The Future of PFAS Collaboration



Future PFAS Prevention?



https://www.sixclasses.org/videos/pfas

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www.Michigan.gov/PfasResponse

Thank You!

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