Legal Institute of Great Lakes
University of Toledo Law School
Michigan PFAS Action Response Team (MPART)
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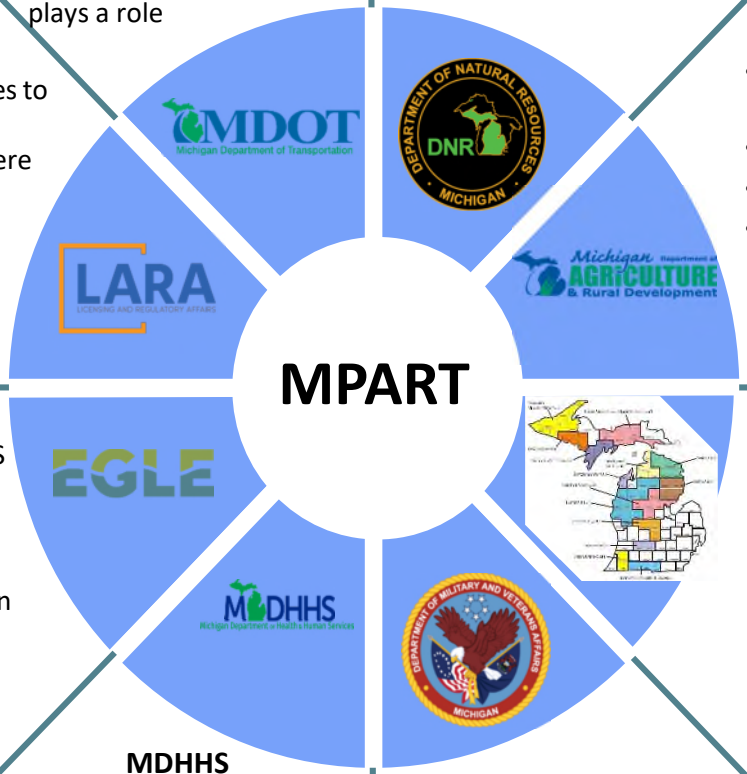
Michigan's Strategic Approach to PFAS

Agenda

- Michigan PFAS Action Response Team Structure
- PFAS Cycle
- Strategic Approach to PFAS Investigation
  - Biosolids
  - Fish
- National Dialogue
- Potential Legislation?
- Q & A

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

- State Fire Marshall
- 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 Michigan agriculture
- 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

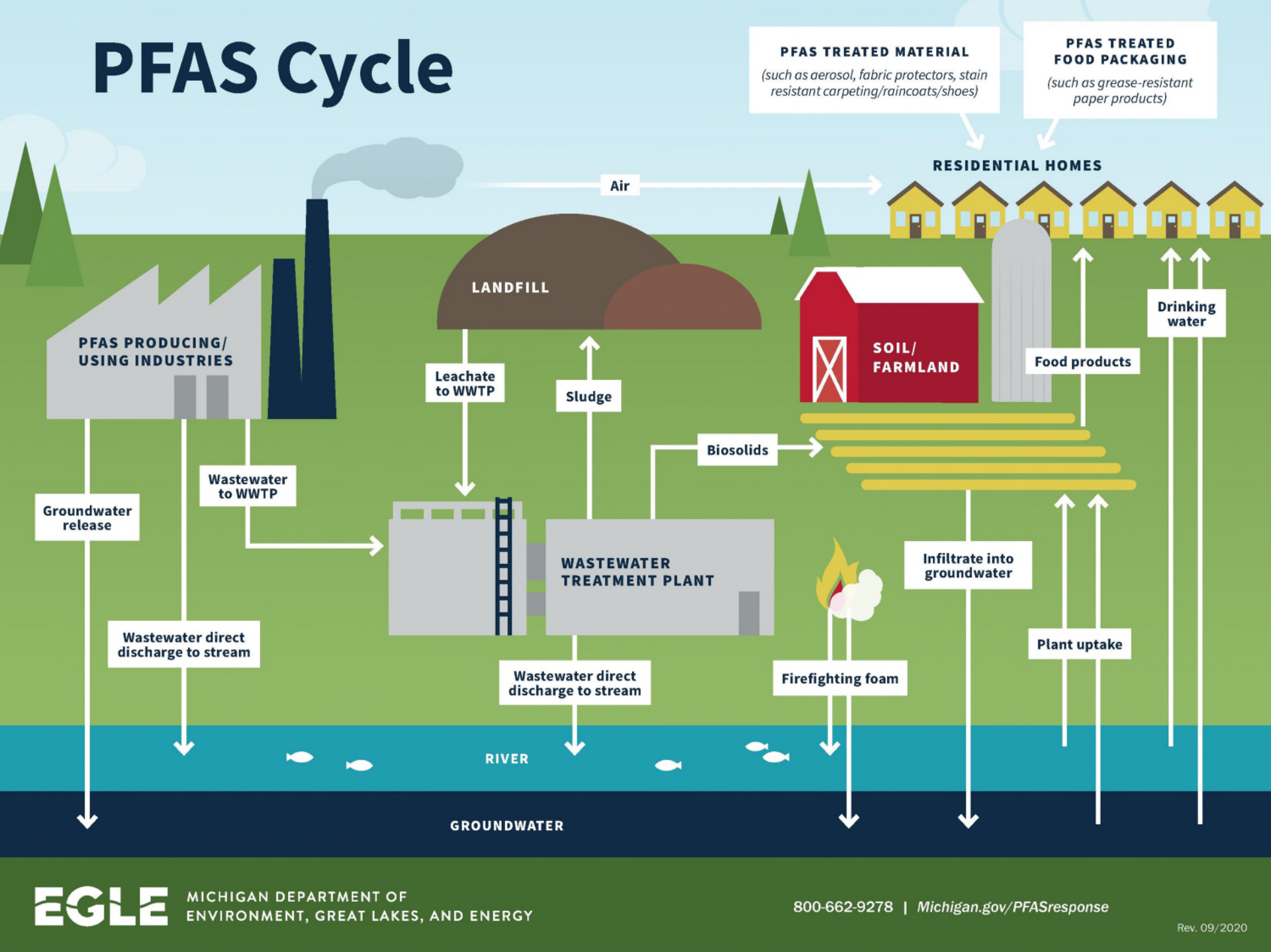
MDHHS

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

DMVA

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

PFAS Cycle

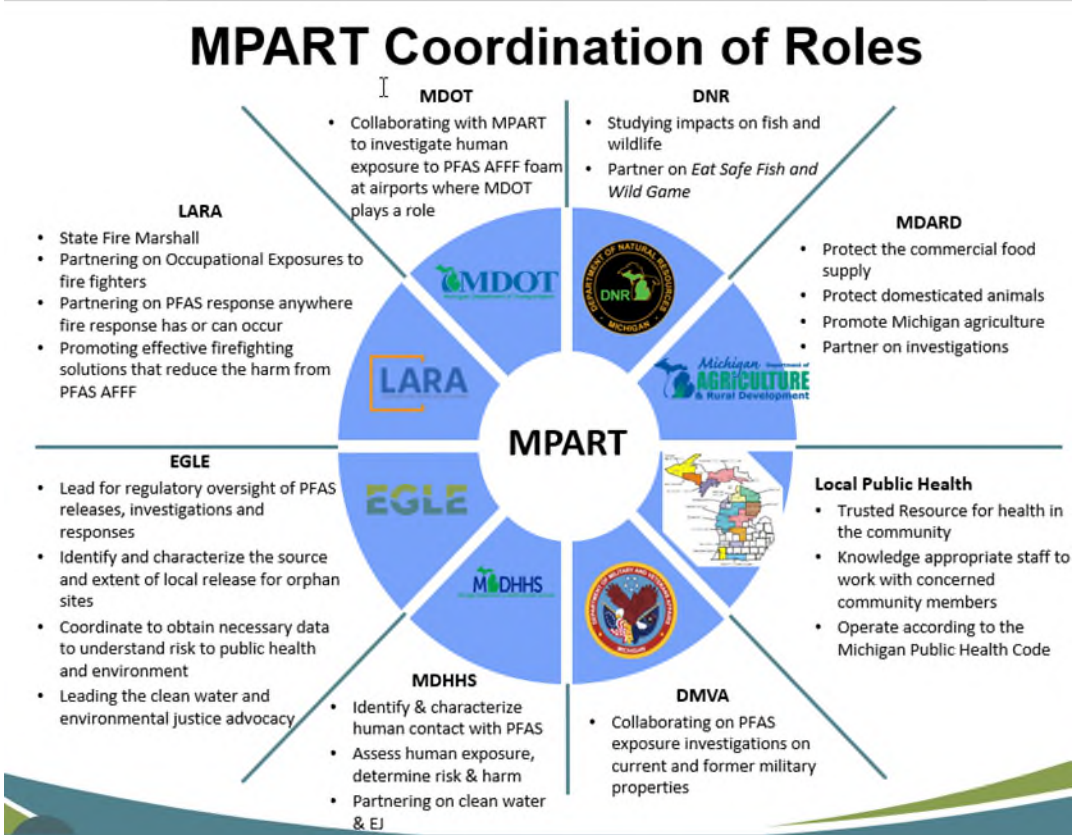


EGLE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

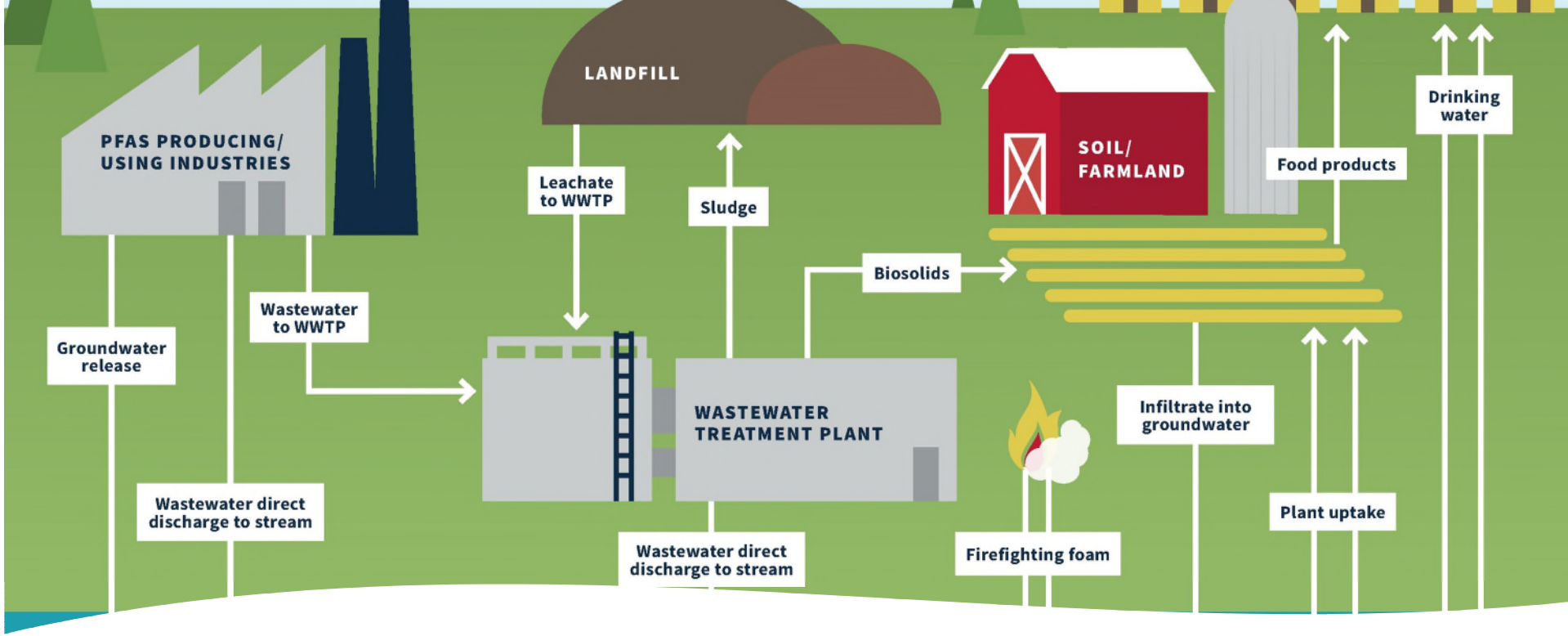
800-662-9278 | *Michigan.gov/PFASresponse*

Rev. 09/2020

Michigan's Holistic Approach



- Science-based; data-driven
- Understand the occurrence of PFAS in our environment;
- Identify PFAS sites, reduce the source concentrations
- Protection of Public Health through collaborative investigations



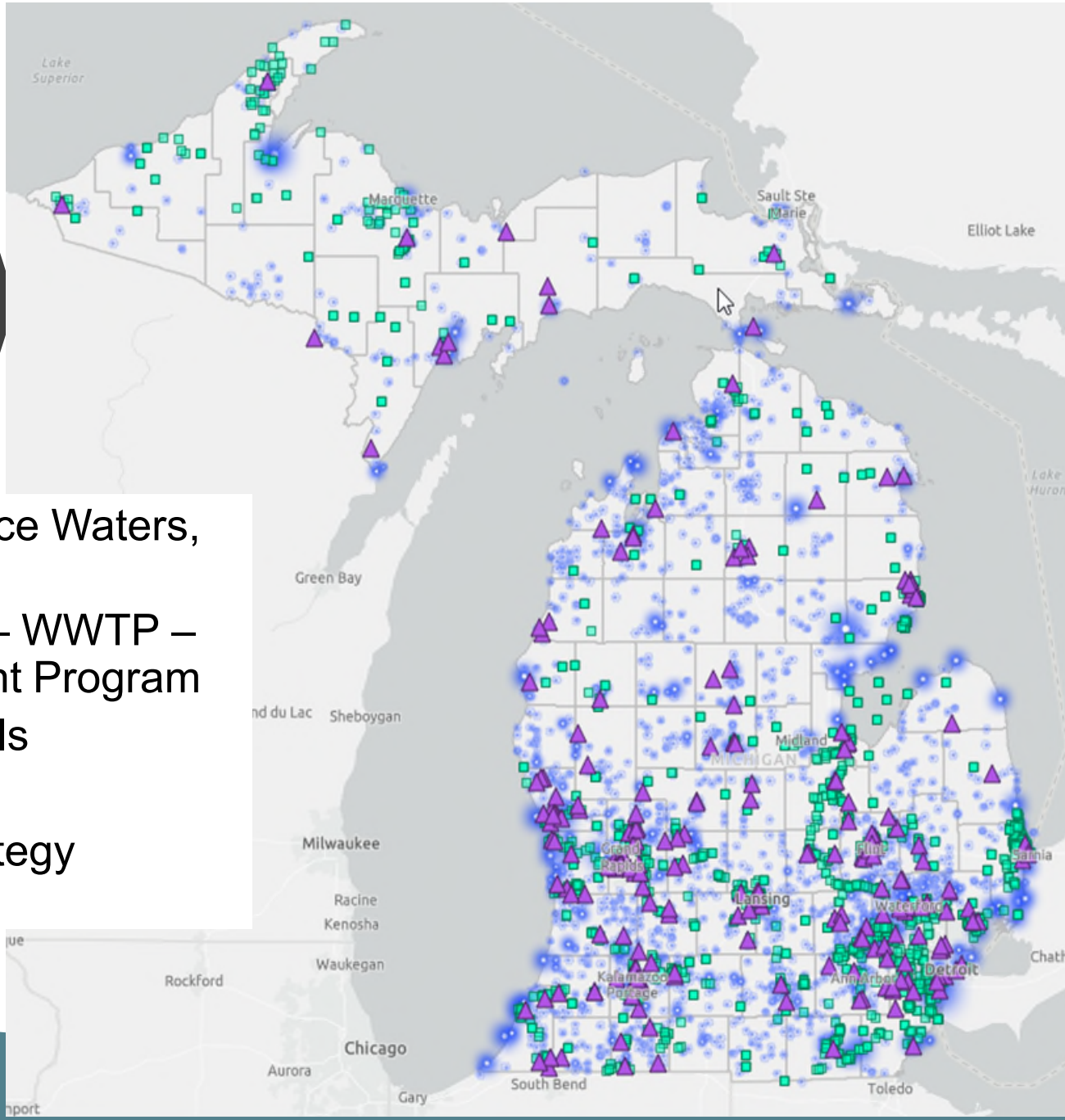
Proactive (Prioritized) Evaluations

Evaluation of Sectors of PFAS Users/Receivers:

- Airports
- Wastewater Treatment Plants
- Landfills
- Military Bases
- Tanneries
- Platers

2018-2022 Assessment Work

- Drinking Water, Surface Waters, Groundwater
- Source identification – WWTP – Industrial Pretreatment Program
- Prioritization – Landfills
- Grants – Airports
- Interim Biosolids Strategy



Biosolids Interim Strategy

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

LAND APPLICATION OF BIOSOLIDS CONTAINING PFAS

Interim Strategy

Updated April 2022

Source Reduction

Analytical Results/Source Investigation and Control

- **PFOS at or above 125 µg/kg.**
  - Biosolids exceeding 125 µg/kg PFOS are deemed to be industrially impacted and cannot be land applied.
  - Immediately notify EGLE, WRD staff.
  - Sample effluent and investigate potential sources to develop a source reduction program, if they have not already done so under the IPP PFAS Initiative.
  - Arrange alternative treatment or disposal of solids.
- **PFOS at or above 50 µg/kg but below 125 µg/kg.**
  - Immediately notify EGLE, WRD staff.
  - Sample effluent and investigate potential sources to develop a source reduction program, if they have not already done so under the IPP PFAS Initiative.
  - To reduce overall loading to the site, reduce land application rates to no more than 1.5 dry tons per acre (or submit an Alternative Risk Mitigation Strategy).

MICHIGAN STRATEGY FOR LAND APPLICATION OF BIOSOLIDS CONTAINING PFAS (UPDATED 2022)

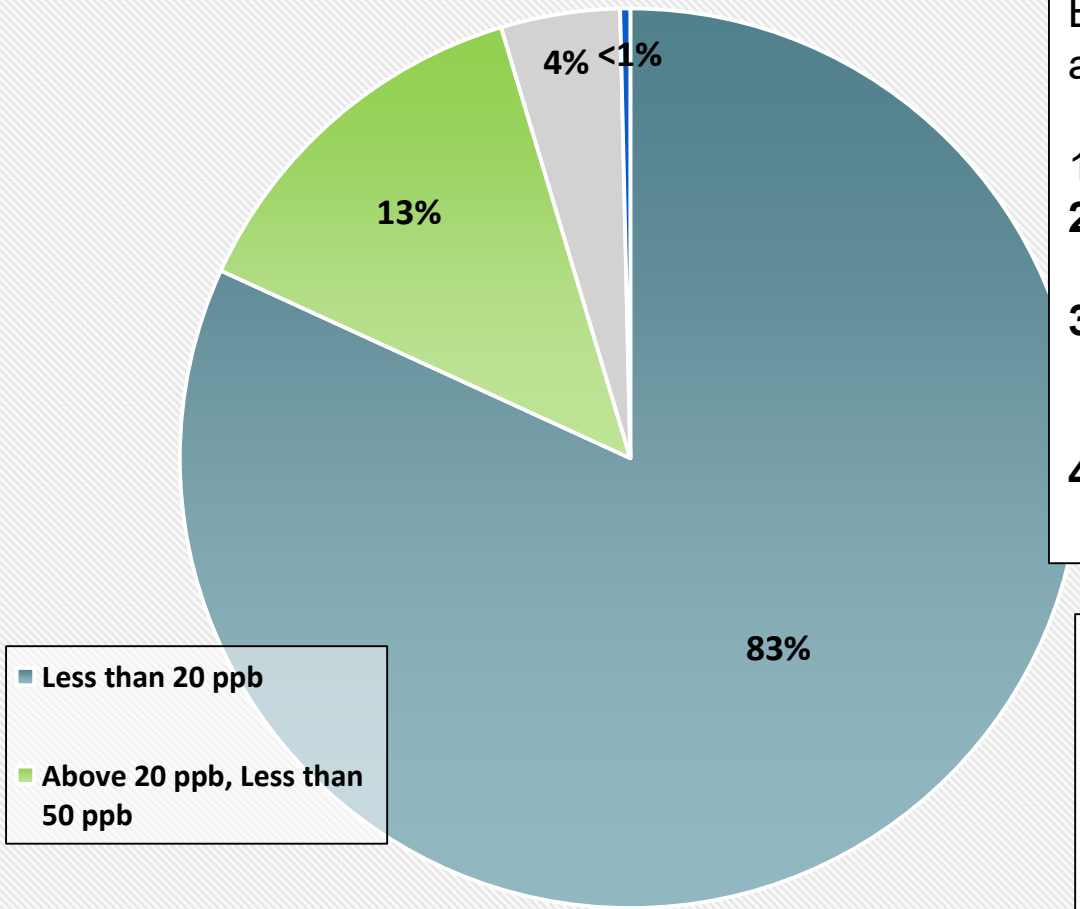
- **PFOS above 20 µg/kg, but below 50 µg/kg.**
  - EGLE recommends investigating sources and sampling the WWTP effluent for PFAS. Guidance can be obtained from the WRD IPP PFAS staff.
  - If a WWTP on the Permit Cycle (five year) sampling frequency has a PFOS result above 20 µg/kg, the WWTP will be required to sample each year the WWTP intends to land apply, prior to land application.
- **PFOS at or below 20 µg/kg.**
  - This number is based on the averages derived from the Summary Report: Statewide Biosolids and WWTP Study and other available data. No additional requirements to comply with the Interim Strategy.

WWTPs are encouraged to collect more frequent PFAS samples for biosolids and may choose to sample annually, even if not required to do so. The WRD recommends including PFAS in routine sampling of biosolids prior to land application.

Communication to Landowners/Farmers

Prior to land application at a site, provide the PFOS analytical results to the landowner and farmer (if different) via hard copy or electronic mail. Also provide EGLE biosolids staff contact information and the additional PFAS-related resources provided in the PFAS Landowner/Farmer section of the PFAS Land Application Workgroup Web page.

2021 - 2022 Biosolids Interim Strategy PFOS Concentrations



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 125** ppb **are not** permitted to land apply biosolids

Results from the 2021 and 2022:
Average PFOS = 14.37 ppb
Median PFOS = 9.2 ppb.
Data collected from **192 WWTPs**.

20 ppb and below: 230 WWTPs
> 20 ppb, < 50 ppb: 38 WWTPs
> 50 ppb, < 125 ppb: 12 WWTPs
125 ppb and above: 1 WWTP

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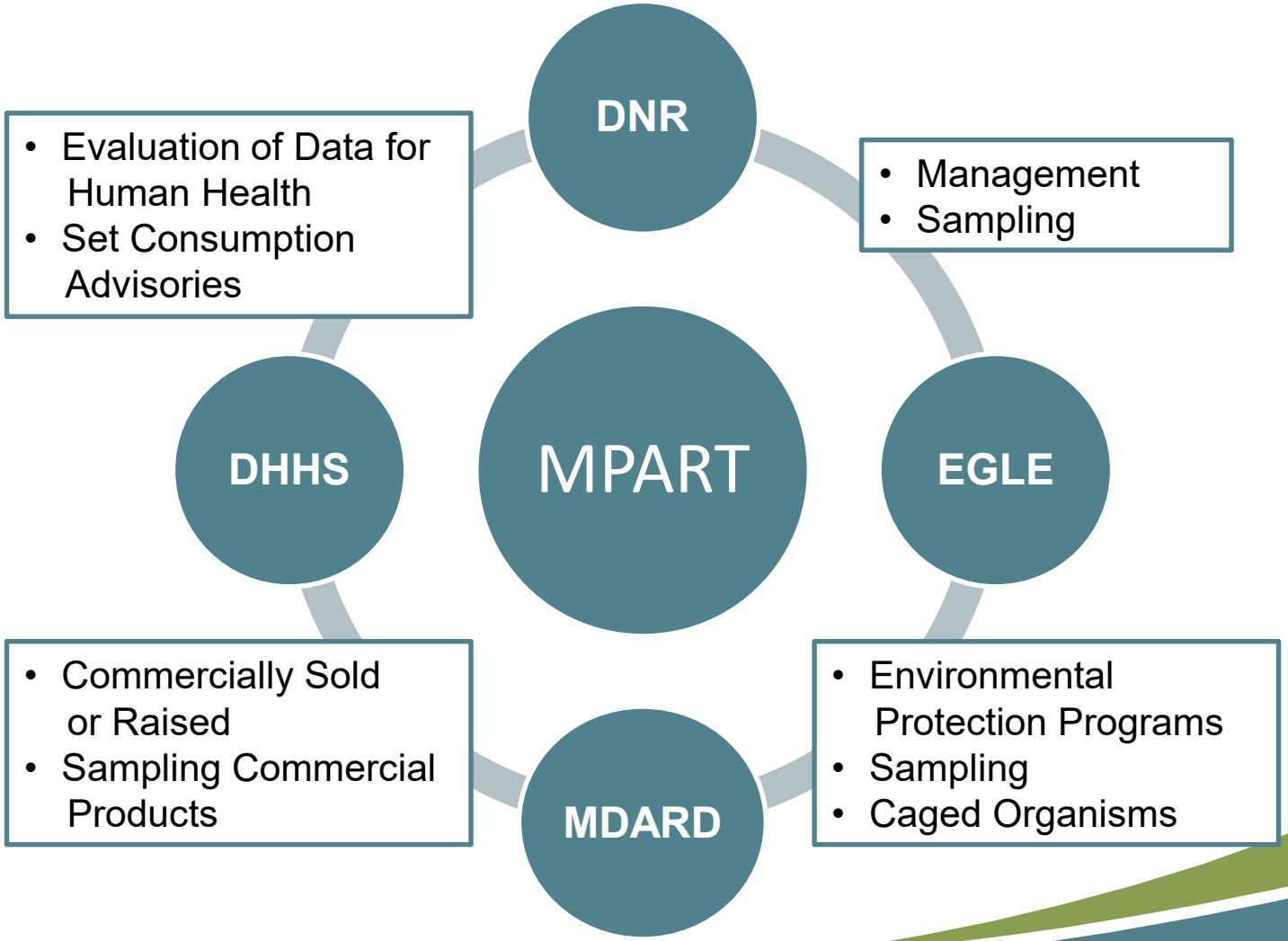
Biosolids Key Points

- Michigan created Biosolids Strategy in the absence of federal requirements from EPA as they conduct a risk assessment
- Strategic effort continues to drive down the concentrations
- Continue to coordinate the WWTP source reductions with the Biosolids Strategy
- Require sampling of biosolids before land application occurs
- Prohibits industrially impacted biosolids from being applied

Coordination for PFAS Sites & Agriculture

- New PFAS sites are reviewed by Michigan Department of Agriculture and Rural Development for possible impacts to farms, agricultural fields, animals, migrant labor housing, high-capacity irrigation wells, and other farm operations within a one-mile radius.

Fish and Wildlife Consumption

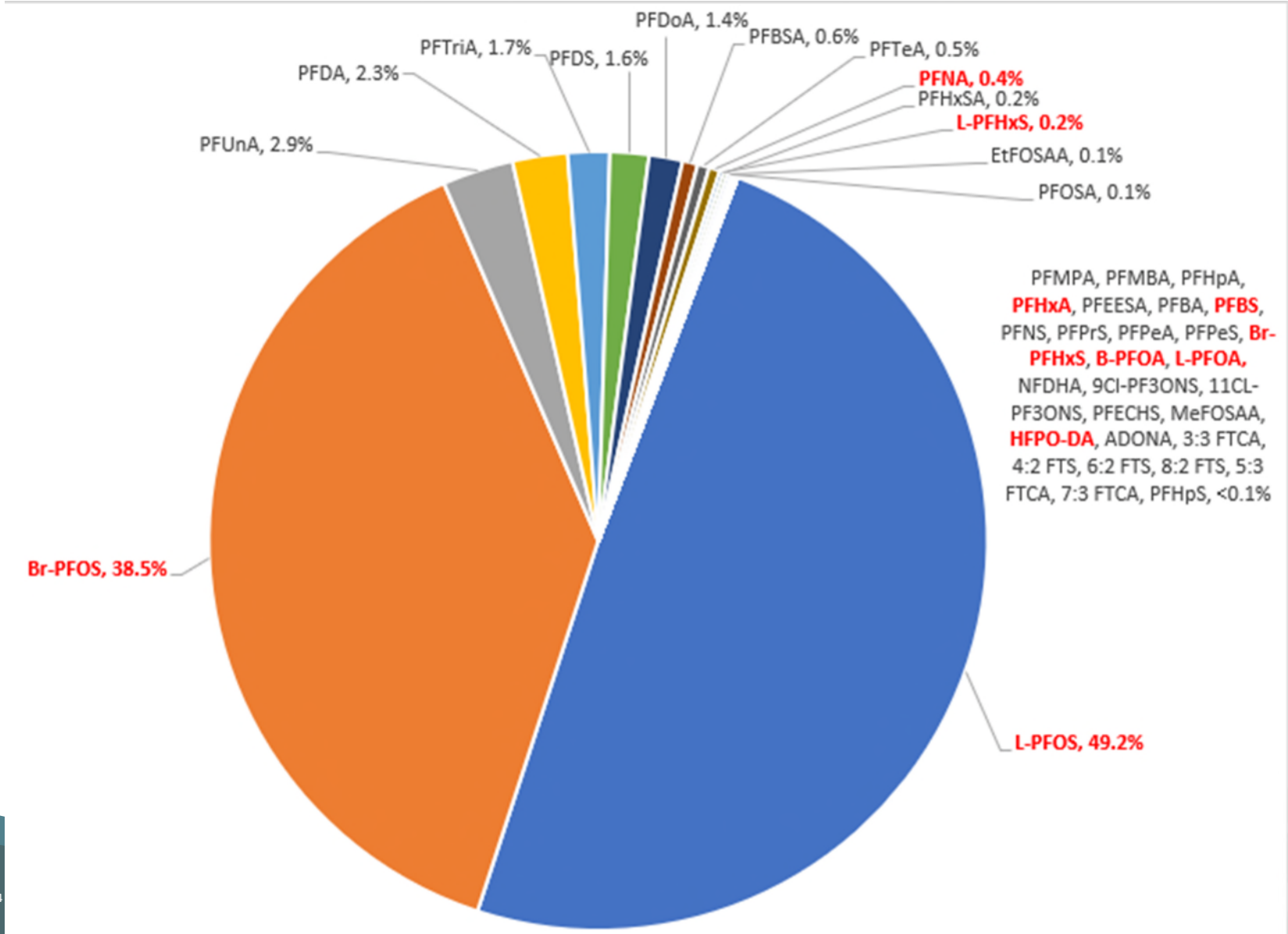


Lakes and Streams Investigations

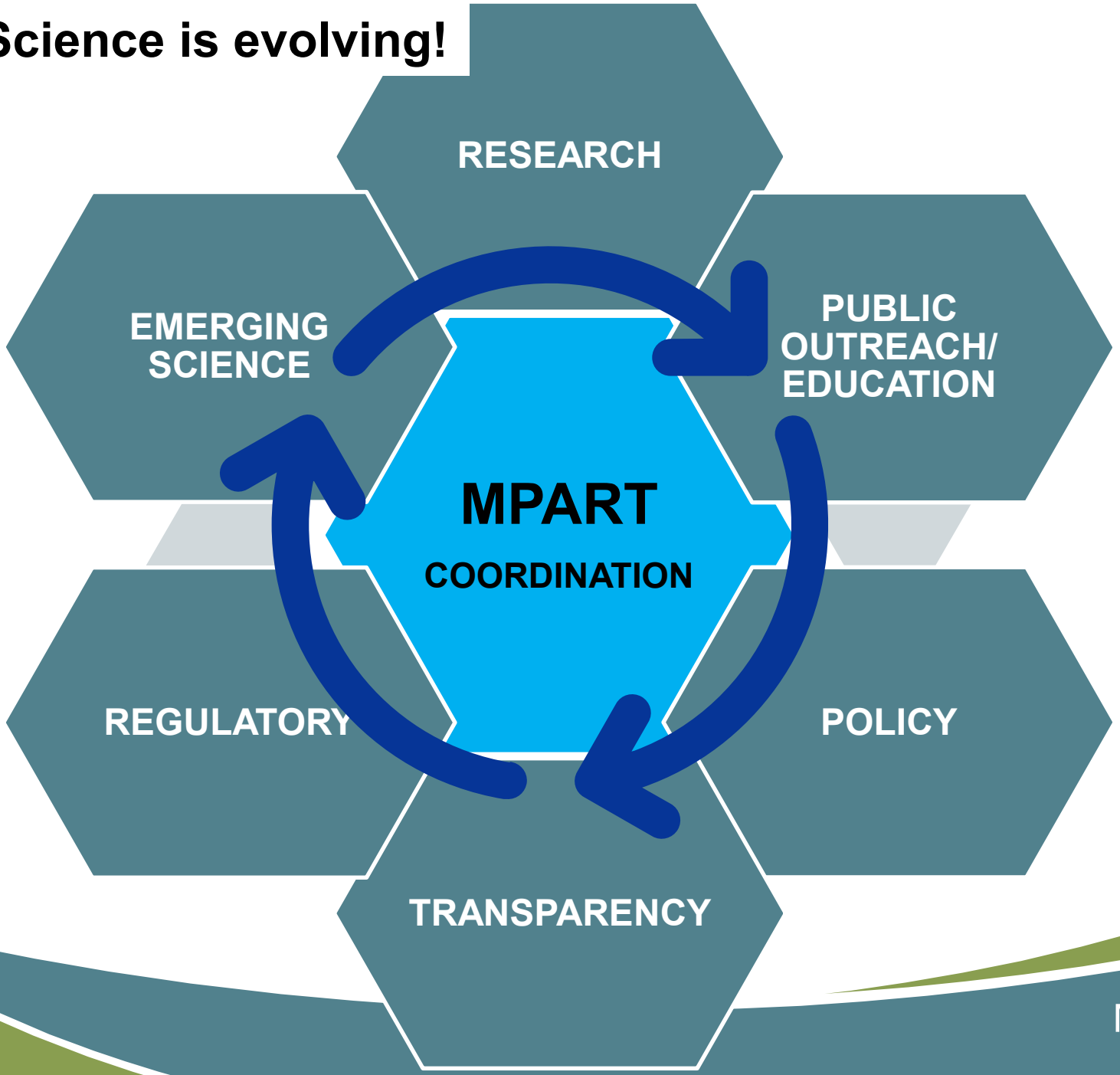
- Water and Fish
- Discharges
- POCIS = Polar Organic Chemical Integrative Samplers (Passive samplers)

Michigan Fish Results

Percentage of total PFAS in an average fish fillet - (over 1,467 Fish for 2021)



PFAS Science is evolving!



National Dialogue
What we are hearing…

- AFFF - Changing formulations for future – less than 1 ppm or 1 ppb? Truly “green”?
- How to get rid of the old AFFF containing PFAS?
- Banning AFFF w/ intentionally added PFAS?
- Labeling food packaging and cosmetics, dental floss, personal care products,
- Recycling and composting
- Septic systems
- Additional ways to stop the cycling of PFAS through the environment
- What is acceptable remediation?

Potential Legislation?

- Funding for PFAS evaluation and remediation efforts
- Banning AFFF w/ intentionally added PFAS for use in training
- Labeling food packaging and cosmetics, dental floss, personal care products, cleaning products
  - To reduce concentrations to WWTP- loading from non-industrial sources
- Ask USDA & FDA develop additional guidance for farmers and States
- Require a national strategy of source reduction for WWTP to drive down biosolids concentrations nationally
- Continue to fund and support research efforts to advance the science and understanding

United States Senate Committee on
Homeland Security & Governmental Affairs
U.S. Senator Gary Peters | Chairman

Peters Introduces Bipartisan Bill to Bolster Cooperation Between Federal and Local Governments to Protect Communities from Hazardous PFAS Chemicals

FOR IMMEDIATE RELEASE
September 13, 2022
Jay Bhargava

WASHINGTON, DC – U.S. Senator Gary Peters (MI), Chairman of the Homeland Security and Governmental Affairs Committee, introduced bipartisan legislation to improve coordination between federal and local governments to protect Michiganders from exposure to toxic per- and polyfluoroalkyl substances (PFAS). PFAS are man-made chemicals that are widely used in industry and consumer products, and can lead to serious health effects. Peters' bill would create a working group within the White House Office of Management and Budget (OMB) to improve intergovernmental coordination to address contamination of these harmful substances.

"The federal government must do a better job of coordinating with states, Tribes, and local communities when they are working to clean up harmful PFAS chemicals that continue to affect the health and safety of servicemembers, first responders, and entire communities in Michigan and across the nation, " **said Senator Peters**. "This bipartisan bill will help improve communication and coordination efforts across every level of government to ensure there is a more comprehensive approach to cleaning up existing sites and preventing future contamination."

Michigan has the highest number of PFAS contaminated sites in the nation – largely because the state is at the forefront of testing and identifying these locations. More than 2 million Michiganders have been exposed to PFAS contamination in their drinking water and PFAS have been found in every Great Lake. Exposure to these chemicals can cause detrimental health effects, including an increased risk of cancer, damage to the immune system, decreased fertility, birth defects, liver disease, and thyroid disease.

Support for an MPART-like structure for coordination at the federal level

MPART

Helpful Links for your Use

- Michigan Firefighter Class B AFFF Training Video: https://www.youtube.com/watch?v=PGPFhPgzVgM&t=1s
  - Closed Caption: https://www.youtube.com/watch?v=gMRbpQTFTqM

- MPART Website: https://www.michigan.gov/pfasresponse
- MPART Site Investigations: https://www.michigan.gov/pfasresponse/investigations

- MPART PFAS GIS Map: https://egle.maps.arcgis.com/apps/webappviewer/index.html?id=bdec7880220d4ccf943aea13eba102db
- Biosolids Webpage: https://www.michigan.gov/pfasresponse/workgroups/land-application

- DHHS Drinking water Page: https://www.michigan.gov/mdhhs/safety-injury-prev/environmental-health/topics/care-for-mi-drinking-water/contamination

MICHIGAN PFAS ACTION RESPONSE TEAM (MPART)

www.Michigan.gov/PfasResponse