



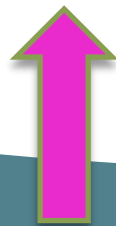
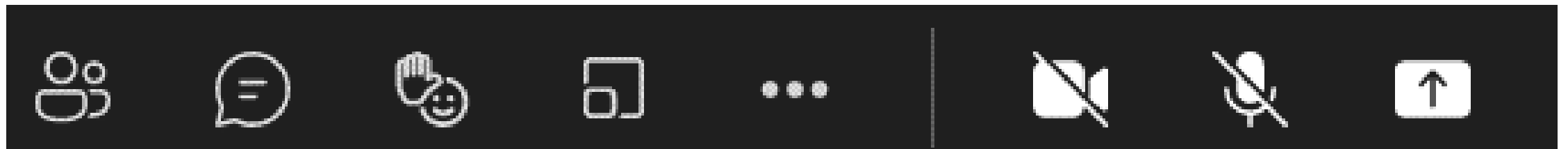
# MPART Citizens Advisory Workgroup

February 8, 2022

MPART

# Housekeeping

- Please keep your mic/phone muted unless speaking
- Only use the “raise hand” and/or “chat” function for questions or to request to speak
- Cameras are optional
- This meeting is being recorded







# Agenda

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- Welcome / Roll Call
- Subcommittee Reports
- MPART
  - Discussion on Recent Biosolids / Food Chain Exposure
  - Public Notification Response
  - New Sites
- Community Feedback



# CAWG Subcommittee's



Engaging the Public Subcommittee



Website Review Subcommittee



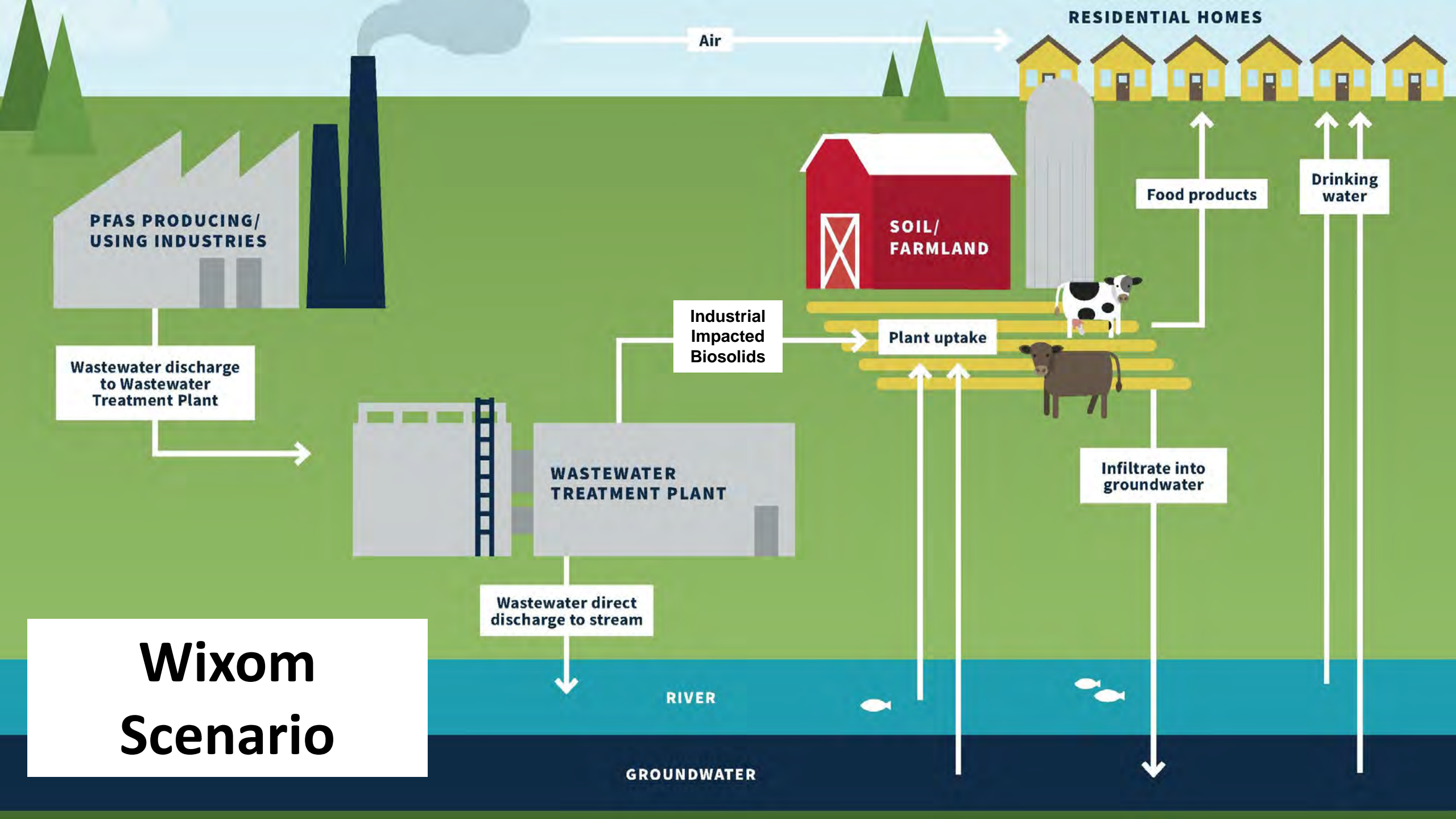
Preventative Measures Subcommittee



Membership Subcommittee

# Membership Subcommittee

- Survey Results
- Nominee List
- Voting Procedure Discussion
- Written Ballot Similar to Survey Form
- Voting Deadline Date



**RESIDENTIAL HOMES**

Air

**PFAS PRODUCING/  
USING INDUSTRIES**

Wastewater discharge  
to Wastewater  
Treatment Plant

**WASTEWATER  
TREATMENT PLANT**

Wastewater direct  
discharge to stream

Industrial  
Impacted  
Biosolids

**SOIL/  
FARMLAND**

Plant uptake

Food products

Drinking  
water

Infiltrate into  
groundwater

RIVER

GROUNDWATER

**Wixom  
Scenario**

# Industrial Pretreatment / Biosolids Land Application

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Stephanie Kammer, Manager

Emerging Pollutant Section | Water Resources Division

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# 2018 Municipal Wastewater Efforts

## Industrial Pre-treatment Program (IPP) PFAS Initiative

Goal: Identify and Reduce PFOS inputs to municipal wastewater treatment plants (WWTPs) at source

Spring 2018 – 95 WWTPs required to screen Industrial Users

- Required screening and monitoring of industrial users to municipal system
- If sources found with PFOS above screening criteria:
  - Sample WWTP effluent
  - If Effluent > than WQV (11/12 ppt PFOS)
    - Reduce/Eliminate/Control PFOS at source (treatment/equipment cleaning/changeout)
    - Quarterly or Monthly Monitoring
  - **If Effluent > than 50 ppt**
    - **All of the above + Sample Biosolids (10 WWTPs)**

On-going – Requirements rolled into permits after Oct 2021



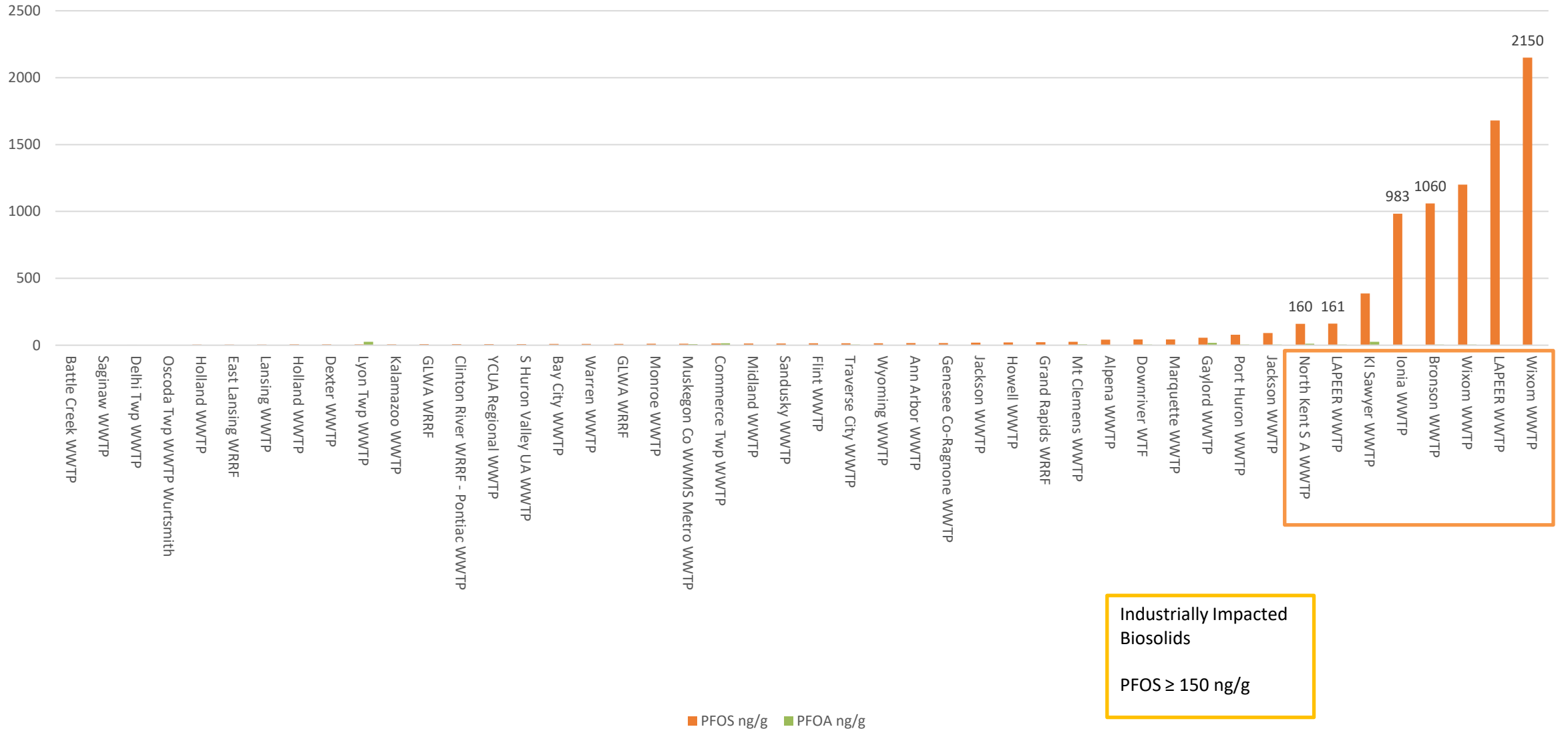
# 2018 Municipal Wastewater Efforts

## Statewide WWTP & Biosolids/Sludge Study

Fall/Winter 2018 - Sampled influent, effluent, & biosolids from 42 WWTPs

- 20 Largest WWTPs
- 22 WWTPs with various flows
  - (3 – 9 MGD; 0.5 – 3 MGD; 0.2 – 0.4 MGD)
- Various treatment processes
- Majority with IPPs
- Some with no industrial users

# WWTP Biosolids PFAS Results 2018 WRD Statewide Evaluation

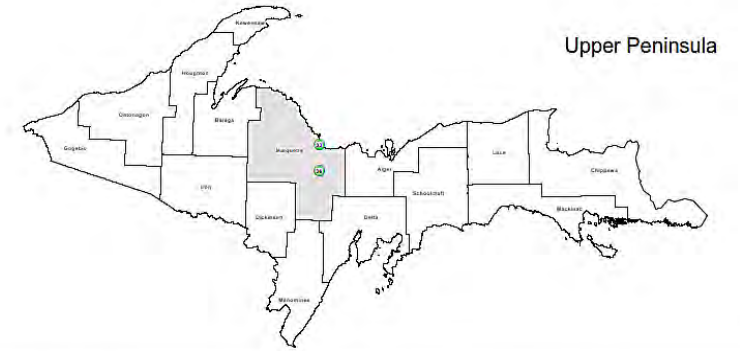


Industrially Impacted Biosolids  
PFOS ≥ 150 ng/g

# Land Application Site Screening Spring 2019

## Industrially Impacted (4)

- Wixom, Bronson, Ionia\*, Lapeer



## Non-Industrially Impacted (5)

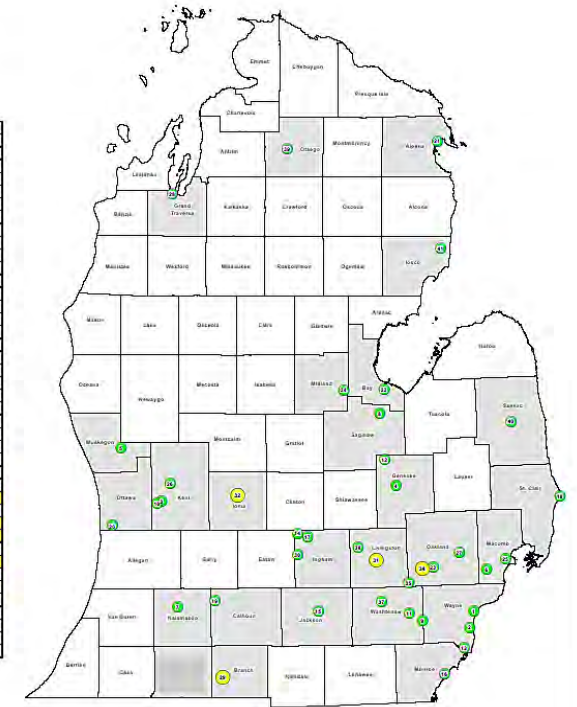
- Delhi, SHVUA, Gaylord, Midland, Jackson

## Screened:

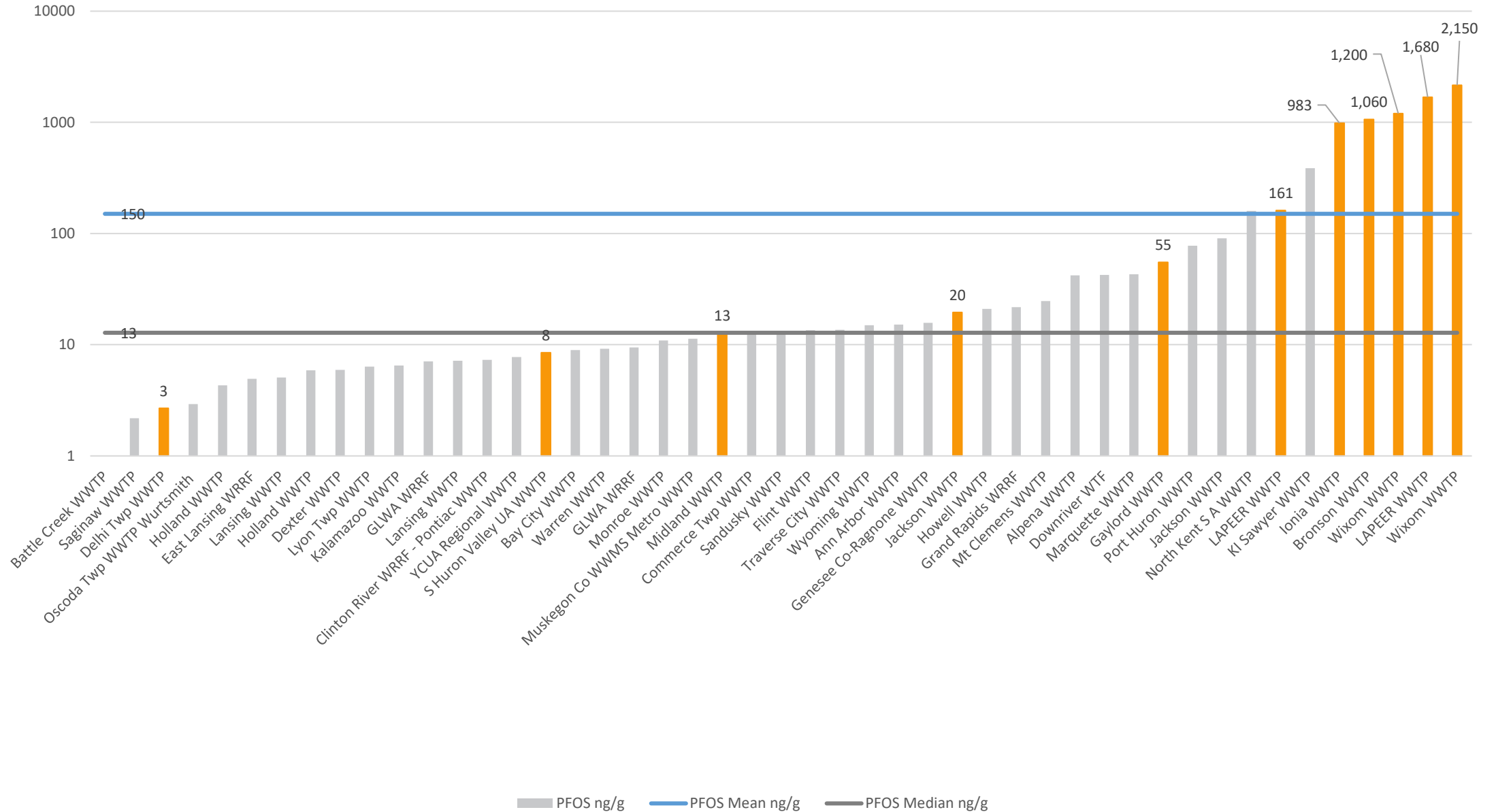
- soils, drain tiles, swales, perched water, adjacent surface waters, groundwater at 4 locations

Lower Peninsula

ID	Facility/Project Name	County
1	GLWA WWTP (DETROIT)	Wayne
2	DOWNRIVER WWTP	Wayne
3	GRAND RAPIDS WWTP	Kent
4	FLINT WWP	Genesee
5	MUSKEGON CO METRO STP	Muskegon
6	WARREN WWTP	Macomb
7	KALAMAZOO WWTP	Kalamazoo
8	SAGINAW STP	Saginaw
9	ECOLA WWTP	Washtenaw
10	WYOMING WWTP	Kent
11	ANN ARBOR WWTP	Washtenaw
12	BAGNONE (DIST #2) WWTP	Genesee
13	HURON VALLEY WWTP-SOUTH	Wayne
14	LANSING WWTP	Ingham
15	JACKSON WWTP	Jackson
16	MONROE METRO WWTP	Monroe
17	EAST LANSING WWP	Ingham
18	PORT HURON WWTP	St. Clair
19	BATTLE CREEK STP	Calhoun
20	HOLLAND WTP	Ottawa
21	ALPENA WWTs	Alpena
22	BAY CITY STP	Bay
23	COMMERCE TWP WWTP	Oakland
24	HOLLAND WWTP	Midland
25	MT. CLEMENS WWTP	Macomb
26	NORTH KENT SA	Kent
27	PONTIAC STP	Oakland
28	TRAVERSE CITY REG STP	Grand Traverse
29	BRONSON WWTP	Branch
30	DELHI TWP WWTP	Ingham
31	HOWELL STP	Livingston
32	IONIA STP	Ionia
33	MARQUETTE WWTP	Marquette
34	WINDOM STP	Oakland
35	LYON TWP WWTP	Oakland
36	KI SAWYER WWTP	Marquette
37	DEXTER STP	Washtenaw
38	POWELLVILLE WWTP	Livingston
39	SPYGLD PD SEWAGE LAGOONS	Ottawa
40	SANDUSKY WWTP	Sandwich
41	DECODA TWP WWTP WURTSMITH	Iosco



# WWTP Selected for Field Monitoring





# General Findings


## Fields where **non**-industrially impacted biosolids were applied:

- Non-detectable to low concentrations of PFAS in soils, surface water, and groundwater
- No exceedances of water quality values in surface water (12 ppt PFOS)
- No exceedance of Part 201 criteria in groundwater

## Fields where industrially impacted biosolids were applied:

- Higher concentrations in soils
  - Several exceedances of water quality values in surface water (>12 ppt PFOS)
  - Exceedances of Part 201 criteria for PFOS and PFOA in shallow and/or perched groundwater (<20 ft bgs)
  - Minimal to no impact on deeper groundwater
- Results shared with MPART/MDARD/MDHHS – Land Application Workgroup

# Land Application of Biosolids Containing PFAS Interim Strategy

- Announced March 2021; Effective Date: July 1, 2021
- PFAS Biosolids Sampling Required
  - A representative sample of biosolids must be collected and analyzed for PFAS prior to land application. Required sampling frequency is determined by the size of the WWTP, whether an IPP is required as described below, and based on previous results.
- Communication to landowners/farmers required prior to land application
- Continue source identification/reduction efforts (recommended/required depending on results)
- Industrial Impacted (150 ppb or greater) –  no land application
- 178 biosolids PFAS results received from 162 WWTPs in 2021
  - 1 facility with Industrial Impacted results

# Investigation of Legacy/Historical Sites

- MPART working to identify facilities who historically may have had residuals with high concentrations of PFAS land applied
  - MPART Land Application Workgroup - Legacy Site Subcommittee
  - Biosolids - working to identify municipal facilities who may have historically received high concentrations of PFAS
    - ex. Port Huron WWTP – process wastewater from paper facility in the 80s
  - Other residuals – Beneficial Use of certain residuals such as paper sludge

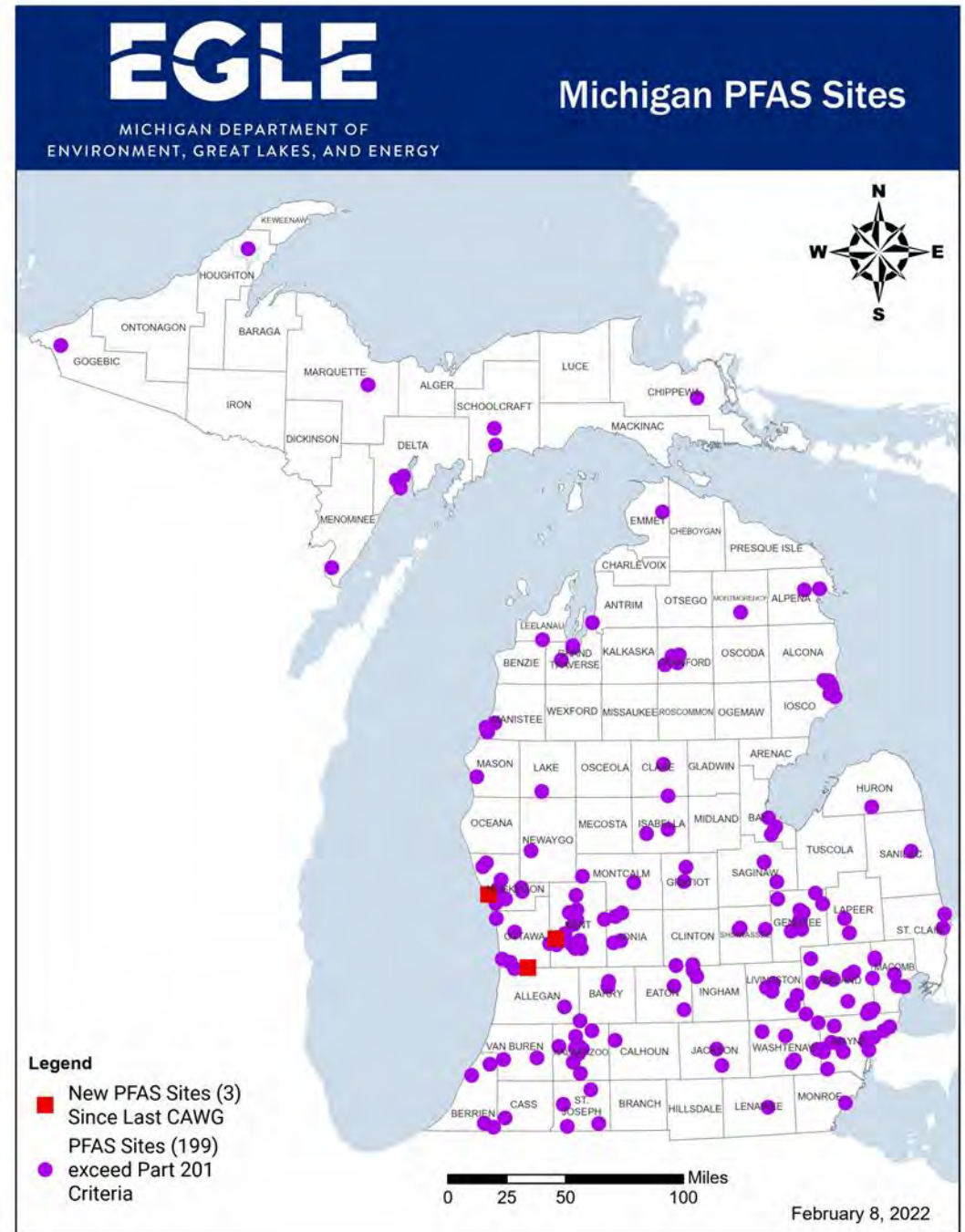
# Public Notification Recommendation Response

Andy Draheim and Abigail Hendershott



# New Sites

- Deyoung Landfill  
Zeeland, Allegan County
- SD Warren (SAPPI)  
Muskegon, Muskegon County
- Riverside Sand and Gravel  
Grand Rapids, Kent County



# MICHIGAN PFAS ACTION RESPONSE TEAM (MPART)

[www.Michigan.gov/PfasResponse](http://www.Michigan.gov/PfasResponse)

The logo for the Michigan Department of Environment, Great Lakes, and Energy (EGLE). The letters 'EGLE' are rendered in a bold, sans-serif font. The 'E' and 'L' are green, while the 'G' and 'E' are blue. A white wave-like graphic is integrated into the 'G'.

MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

