



Menominee, Michigan Warehouse Fire Response October 2022



Takeaways

- Notification process, procedure, contacts important for timely deployment
- Multi-state impacts/involvement
 - Emergency declarations (MI & WI)
 - Funding mechanism, reimbursement for response activities
- Data Management
 - Data driven, hybrid response organization model was highly effective in promoting sustained unification, of as many key agency players as were necessary for:
 - Data sharing (large data sets)
 - Data evaluation
 - Data management
 - Common operating picture(s) / drone feeds

Takeaways

- Unified Command (15 agencies)
 - Awareness of and focus on integration of fire and public health/environmental response elements as early as possible
 - Coordination/integration w/ State IMT
 - MSP resolved early on, resulting in unification of all response partners
 - ICPs were not co-located, liaisons which moved back and forth
 - State IMT KLPs attended UC, C&GS, Tactics, Planning meetings
 - Hybrid IMT interaction important
 - Marinette facility had space, configuration, connectivity (bandwidth)
 - Transition to MAC Group smooth
 - UC decision
- Joint Information Center
 - Sustained participation/buy-in from all agencies (both states, counties, cities) and facility owners/tenants resulted in efficient decision making & unified public messaging
 - Joint preparation of FAQ, PRs, press conference messaging

Notification

- 10/6/2022 2300hrs - Fire erupts
- 10/7/2022: Notifications
 - Michigan EGLE (PEAS)
 - EGLE contacted Menominee Co EMA, USEPA
 - Menominee Co EMA requested EPA assistance (air monitoring)
 - NRC 1349274 (Resolute, 1043hrs), NRC 1349303 (Tyco, 1643hrs)



DESCRIPTION OF INCIDENT

CALLER REPORTS A RECYCLED PULP MILL IS ON FIRE DUE TO AN UNKNOWN CAUSE. THIS HAS RESULTED IN THE DISCHARGE OF AN UNKNOWN AMOUNT OF FIREFIGHTING WATER MIXED WITH UNSPECIFIED CONTAMINATES INTO THE MENOMINEE RIVER. A SCREEN IS NOT BEING OBSERVED. CALLER REPORTS A WAREHOUSE SECTION OF THE FACILITY (LEASED TO A DIFFERENT COMPANY) SERVES AS A CHEMICAL STORAGE AREA BUT THE EXTENT OF IMPACT TO THIS AREA IS UNDETERMINED. THE FIRE HAS NOT BEEN EXTINGUISHED. THE LOCAL SURROUNDING AREA HAS BEEN EVACUATED. THIS LOCATION IS ON THE WISCONSIN / MICHIGAN BORDER AND THERE IS AGENCY INVOLVEMENT FROM BOTH STATES.



DESCRIPTION OF INCIDENT

CALLER IS REPORTING A FIRE THAT STARTED LAST NIGHT AT A NEIGHBORING FACILITY (RESOLUTE FOREST PRODUCTS - PAPER RECYCLING FACILITY) AND HAS SPREAD TO THE ADJOINING FACILITY. CALLER STATED FLUORINATED AND NON FLUORINATED FOAM IS STORED AT THE WAREHOUSE. FOAM IS CURRENTLY DISCHARGING FROM THE WAREHOUSE AND IS GOING INTO THE MENOMINEE RIVER. THE FIRE IS STILL ONGOING AT THIS TIME. THE SURROUNDING AREA HAS BEEN EVACUATED AND LOCAL ROADS HAVE BEEN CLOSE OFF.

Overview

- 560,000 ft² warehouse with multiple tenants
 - Paper recycler: pulp, paper pulp waste, acids, caustics
 - Specialty chemicals
 - Fire safety products: fluorinated & non-fluorinated foam concentrates and equipment/containers
- Firefighting water/chemical/foam mixture actively discharged to Menominee River and Green Bay (Lake Michigan)
 - Menominee (MI) and Marinette (WI) water intakes impacted
 - 6:2 FTS (Fluorotelomer sulfonic acid, PFAS compound) detections
- Active firefighting operations (~60+ companies responded via MABAS)
- Shelter in Place orders issued (10/6 -10/9, Menominee) (10/6-10/7, Marinette)
 - Police barricaded Stephenson Island Park, 6th St. Slip, Menekaunee Harbor Park, Boom Landing from the public

Site Location

Legend

Menominee intake

Green Bay
(Lake Michigan)

Marinette intake

Menominee, MI
pop. 8500

Menominee River

Paper Mill

Warehouse

Marinette, WI
pop. 11,000

Google Earth

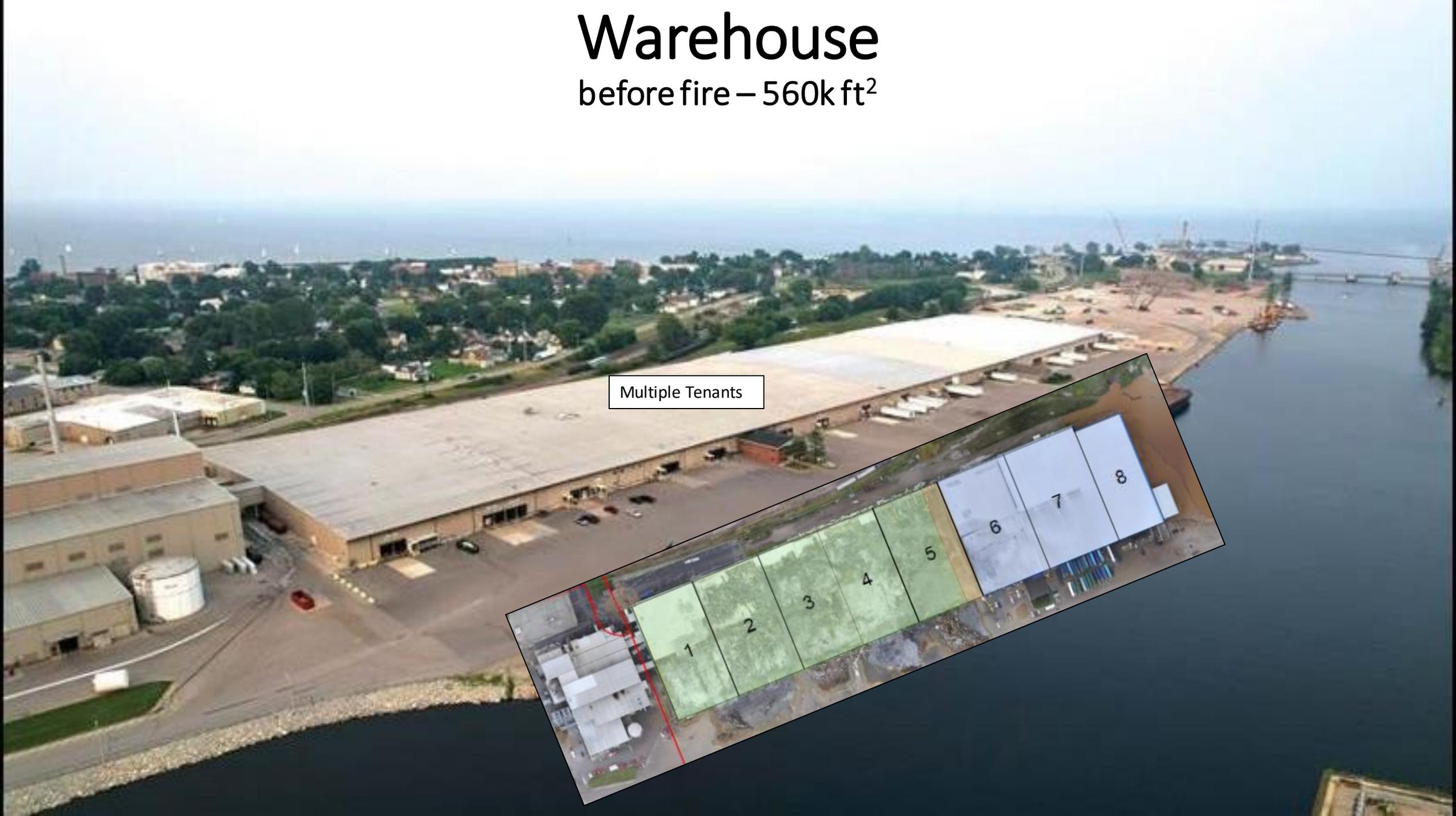


1 mi

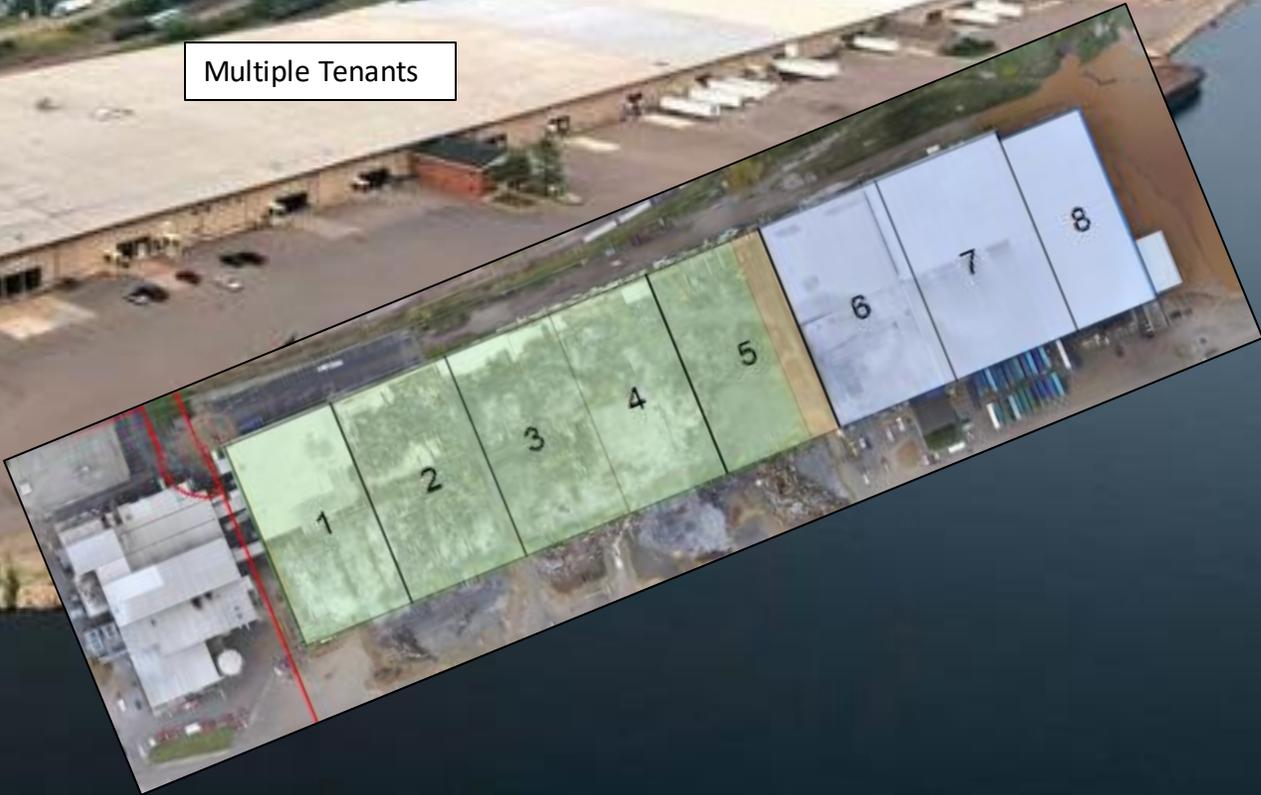


Warehouse

before fire – 560k ft²



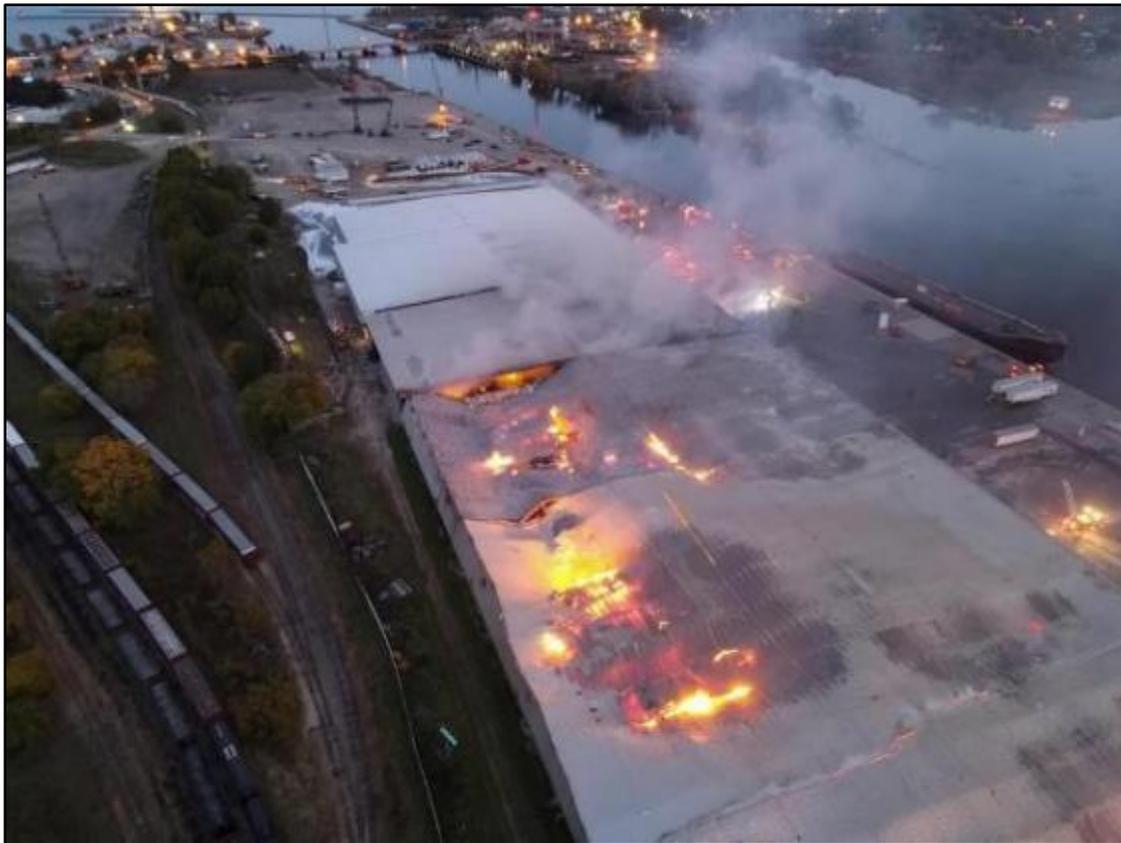
Multiple Tenants





Fire

10/7/2022



~ 60 departments responded to assist City of Marinette Hazmat first team in

Fire fight

10/7/2022



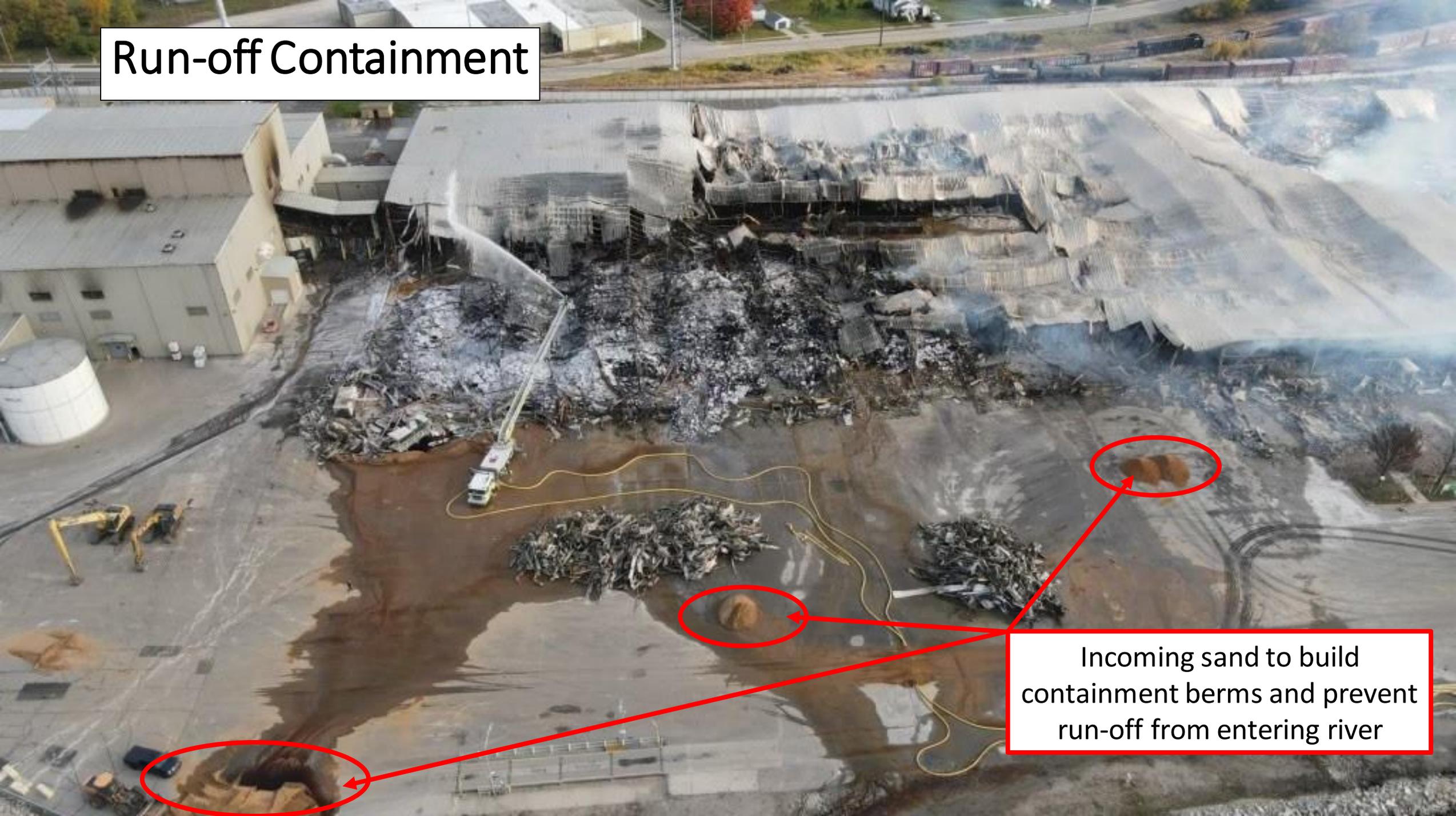
Roof collapsing atop burning paper bales



Runoff from building



Run-off Containment



Incoming sand to build containment berms and prevent run-off from entering river

Extinguishing 'Hot Spots'

Excavators starting to pull apart debris piles



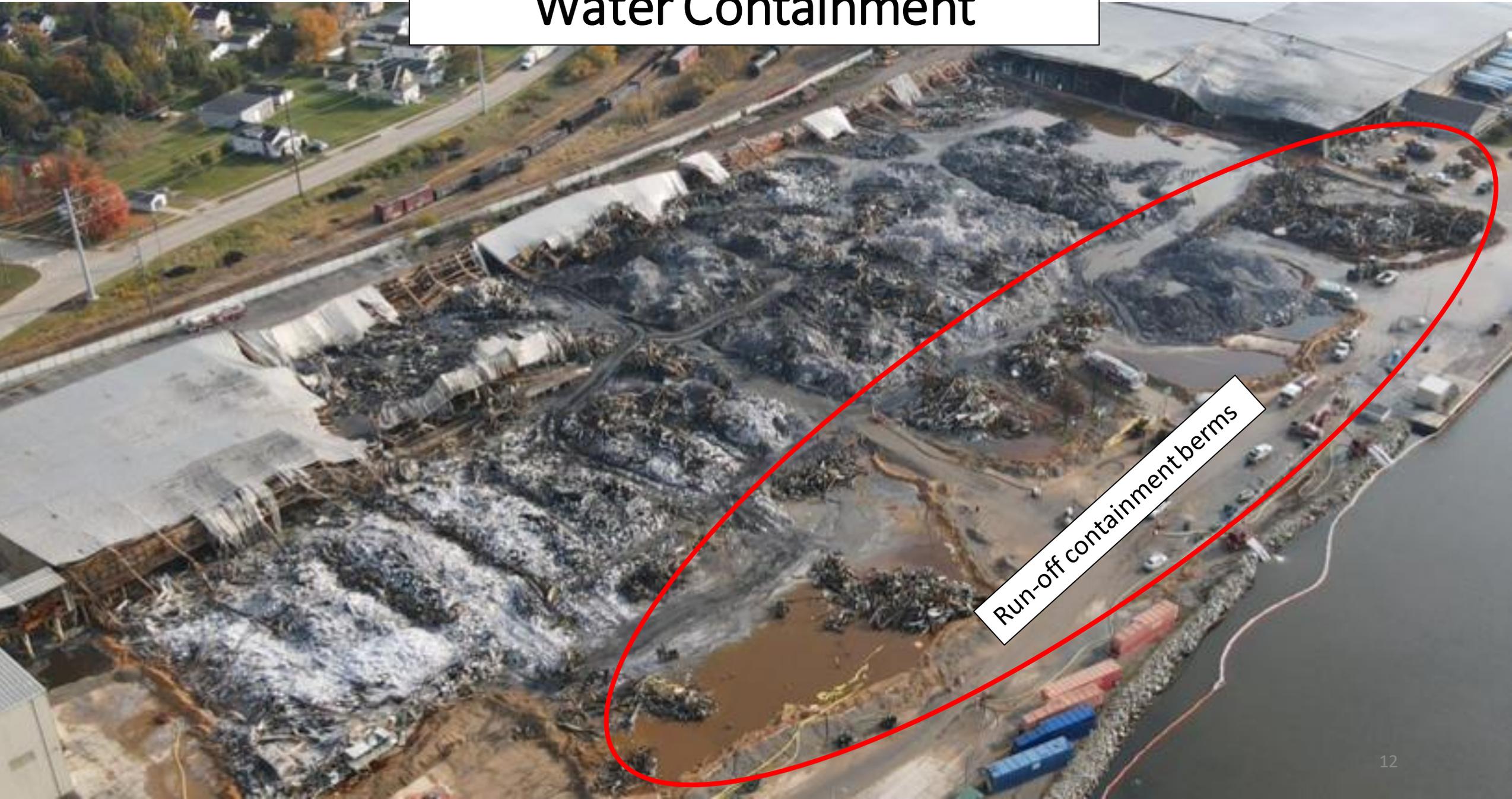
Containment berms

Frac tanks staged to collect run-off water



Drawing water from river

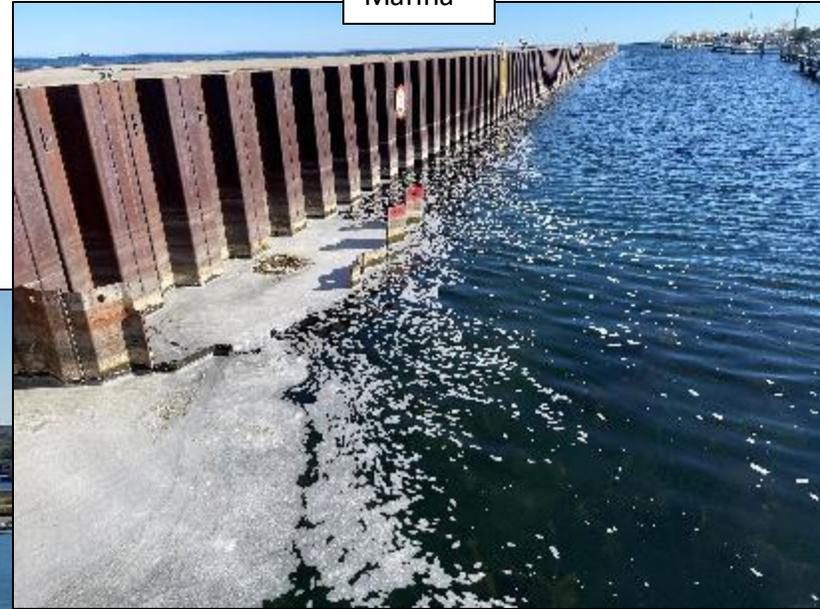
Water Containment



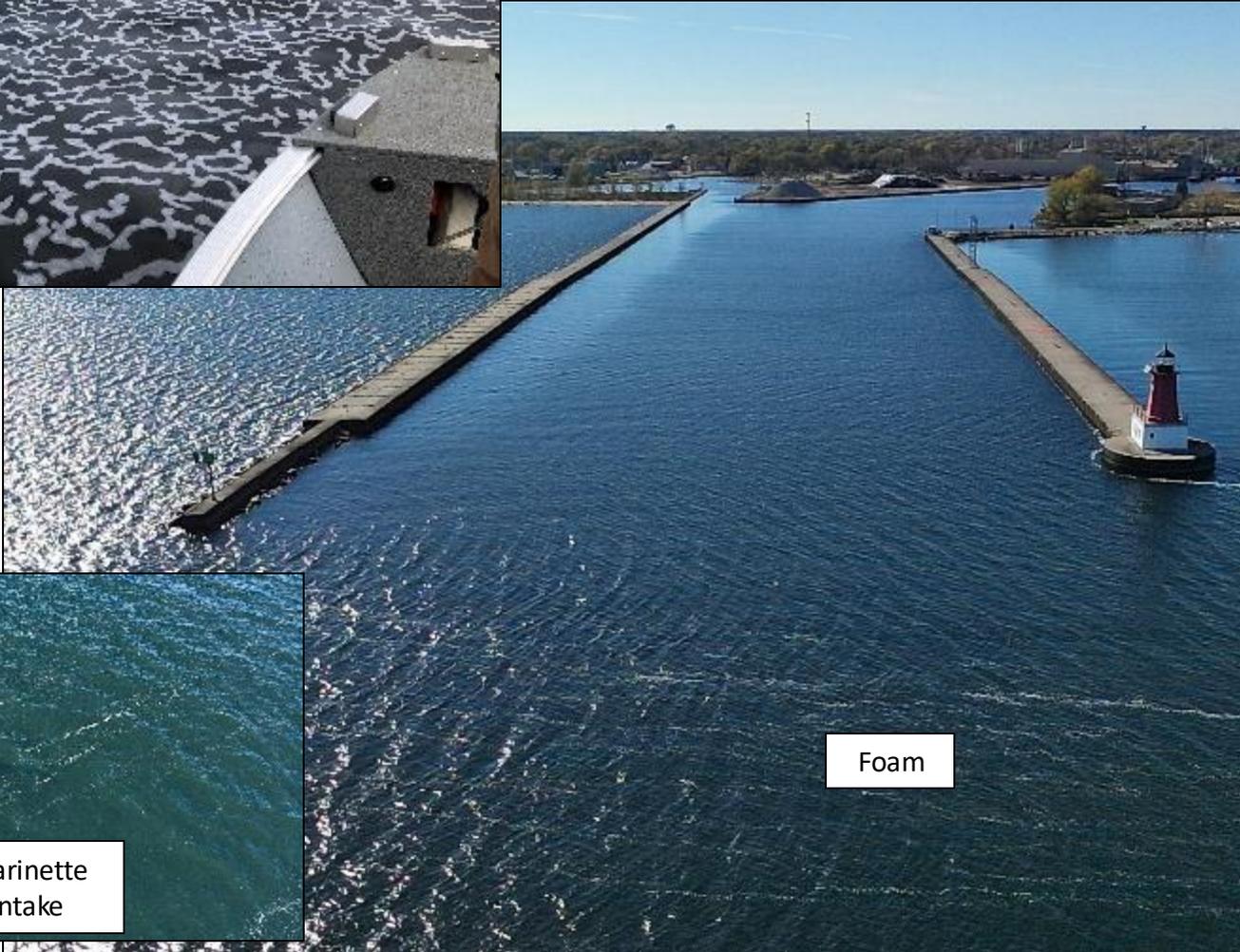
Run-off containment berms

Run-off Impacts

Marina



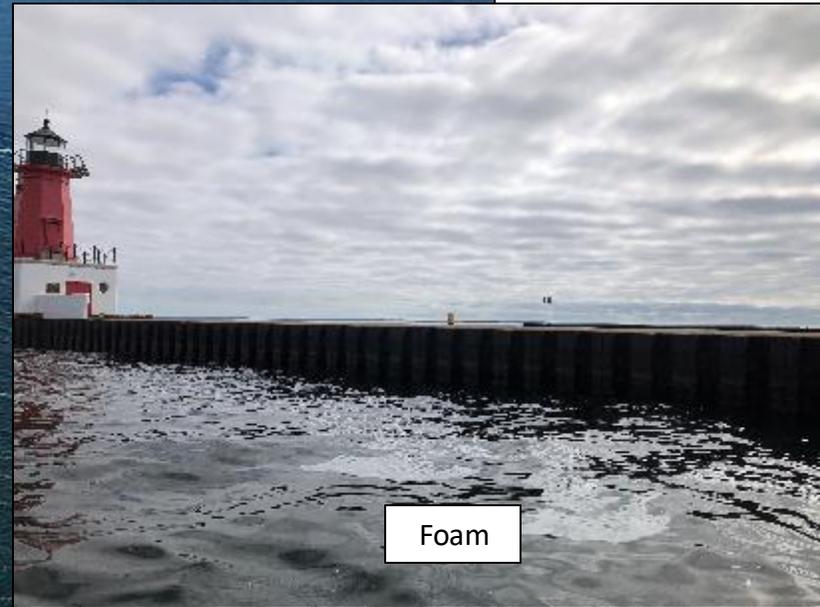
Foam



Foam



Marinette
Intake



Foam

State of Michigan

- City, County (Fire, Police, DPW, Water, EMA, Health)
- EGLE (RRD, MMD, WRD, AQD, MPART, DWEHD)
- DNR (IMT, Fisheries)
- DHHS, MDARD
- MSP, MABAS, NEMAC activation
- Governor's Disaster Declaration (EO 2022-13)
- Menominee River (MI side) sampling & evaluation
- Menominee intake/distribution system sampling, data evaluation
- UC participants, supported EU
 - Public Health established action levels (PFAS, air quality)



State of Wisconsin

- City of Marinette, County (Water, Police, Fire, EMA, Health)
- DNR, DHS, WSP, WEM, State Lab of Hygiene
- Assisted with Menominee River SW sampling
- Monitored City of Marinette raw & finished drinking water sample results
- Provided established WI PFAS action levels
- Supported EU with resources, communications & press briefing



US EPA Region 5



- EPA mobilized at the request of EGLE to provide air monitoring/sampling & water monitoring/sampling
 - 21 perimeter air monitoring locations
 - SUMMA canisters in residential areas, healthcare facility (MI & WI)
 - 2 surface water samples from firefighting water runoff
 - Field tested for pH, hazardous substances
- 3 weeks deployment in cooperation with States of Michigan & Wisconsin
- Facilitated Unified Command
 - Established Environmental Unit (EU) with State/local health & environmental agencies

US EPA Region 5



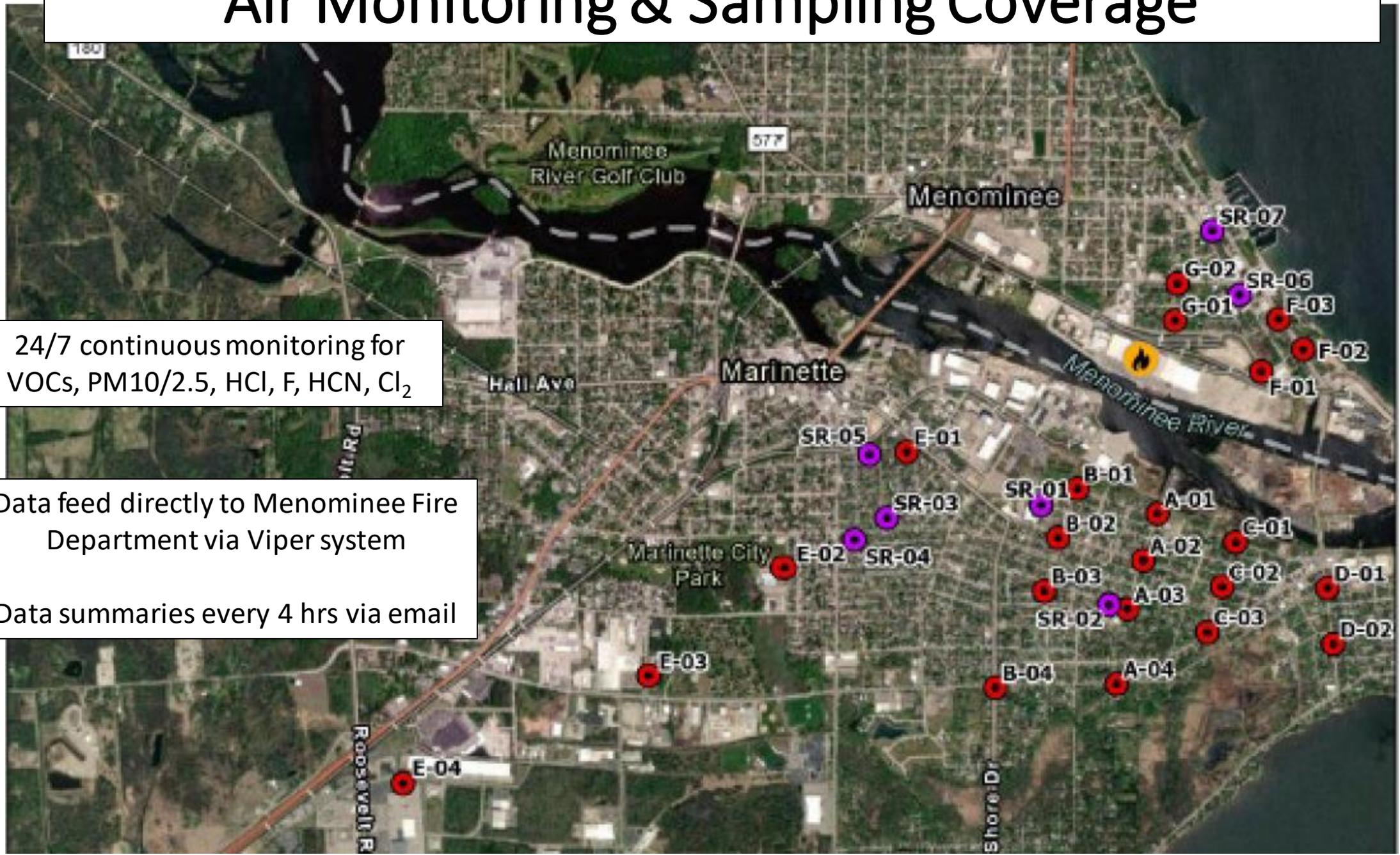
- Activated EOC
- Established a Joint Information Center (JIC) with participation from State & local representatives
 - Press releases & FAQ document developed/disseminated
- Region 5 Water Division, Central Laboratory
 - Sampling, logistics, technical, data support
- Region 5 PFAS experts engaged in EU, provided guidance
- Environmental Response Team (ERT) provided on-site providing air monitoring support and expertise
 - Assisted w/ transition to facility contractor
- Prepare contingencies for alternative water supplies if warranted

Air Monitoring & Sampling Coverage

24/7 continuous monitoring for
VOCs, PM10/2.5, HCl, F, HCN, Cl₂

Data feed directly to Menominee Fire
Department via Viper system

Data summaries every 4 hrs via email



IMAAC Plume Model

CUI

RFI 22-0843a



Soot – Surface Dosage – 1400Z (0900 Local)



Hazard: Large building fire
Coordinates: 45.100511° N / 87.611075° W
Menominee, MI
DTG: 2000Z 07OCT2022 (1500 Local)

Soot Surface Dosage
Exposure: 18 hours (2000Z – 1400Z)

Hazardous

Very Unhealthy

Unhealthy

Population Within Contours

Hazardous	921
Very Unhealthy	1,300
Unhealthy	2,151

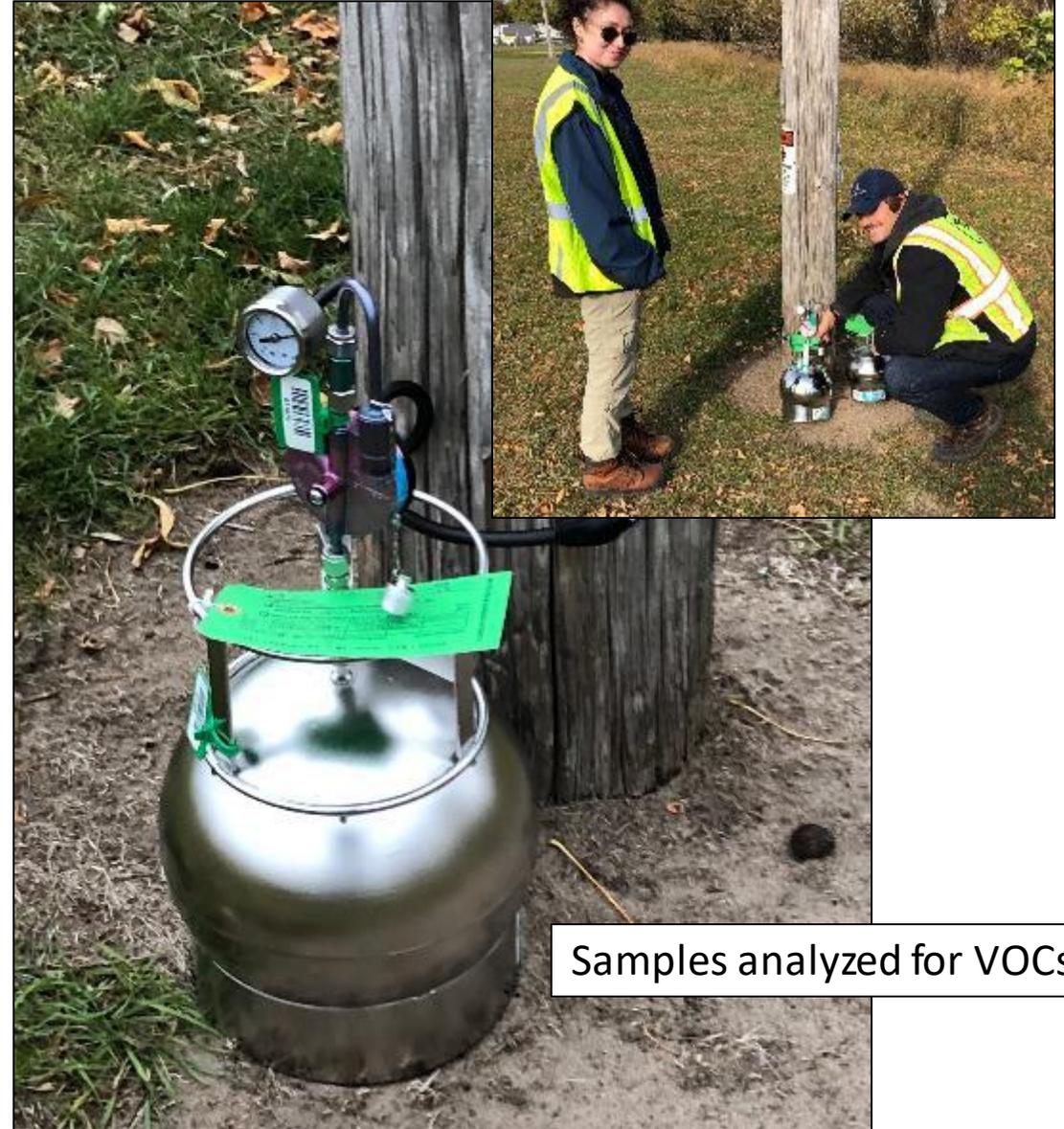
This footprint illustrates the general area of concern, and does not necessarily indicate adverse health effects unless that person is assumed to be standing still for 18 hours.

CUI



Real-time air monitors included
AreaRAEs, MultiRAEs, SPM Flex,
Dustrak DRX

Air monitors



Samples analyzed for VOCs

Air sampling

Operations Dashboard – Air Monitoring

- Air Monitoring**
- Water Sampling
- Air Sampling
- Lab Results - Air Samples
- Lab Results - Surface Water Samples
- Lab Results - Water 6:2 FTS Chart

Available data tabs

Recent Air Monitoring Results

Location: P-05 Time: October 25, 2022 at 16:19:00 Parameter: PM1 Result: 0.00 mg/m3
Location: P-05 Time: October 25, 2022 at 16:19:00 Parameter: PM10 Result: 0.01 mg/m3
Location: P-05 Time: October 25, 2022 at 16:19:00 Parameter: PM2.5 Result: 0.00 mg/m3
Location: P-05 Time: October 25, 2022 at 16:19:00 Parameter: Respirable Result: 0.00 mg/m3
Location: P-05 Time: October 25, 2022 at 16:19:00 Parameter: Total Result: 0.00 mg/m3
Location: P-04 Time: October 25, 2022 at 16:17:00 Parameter: PM1 Result: 0.00 mg/m3
Location: P-04 Time: October 25, 2022 at 16:17:00 Parameter: PM10 Result: 0.00 mg/m3
Location: P-04 Time: October 25, 2022 at 16:17:00 Parameter: PM2.5 Result: 0.00 mg/m3
Location: P-04 Time: October 25, 2022 at 16:17:00 Parameter: Respirable Result: 0.00 mg/m3
Location: P-04 Time: October 25, 2022 at 16:17:00 Parameter: Total Result: 0.00 mg/m3

Last update: 10 seconds ago

Legend

Roaming Air Monitoring Locations

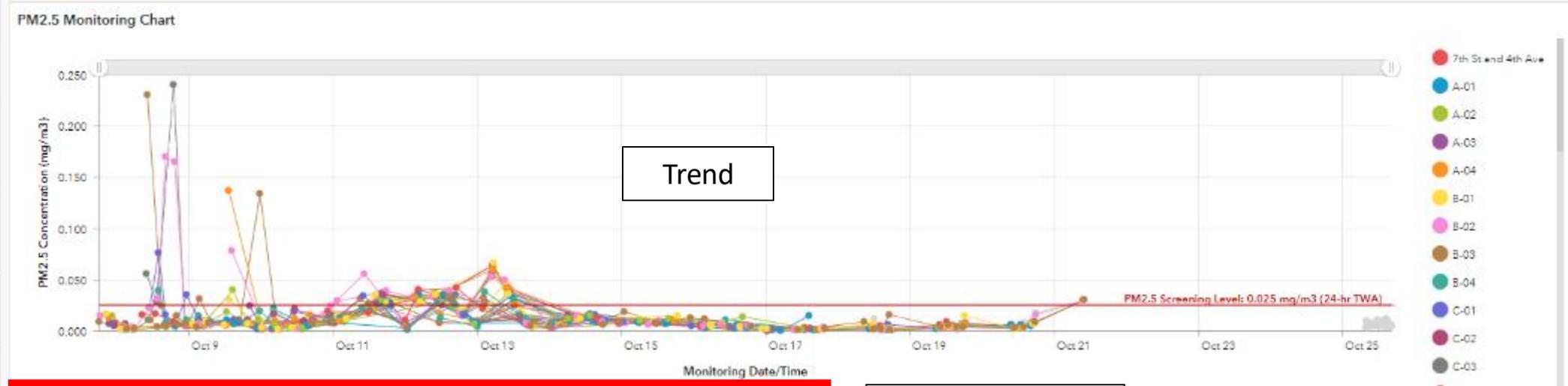
Continuous Air Monitoring Locations

Operator

- ERT
- START

Menominee Paper Mill Fire Location

Map | Live Wind/Weather | NWS Graphical Forecast



- VOC Chart
- PM2.5 Chart**
- PM10 Chart
- HCl Chart
- Fluorine Chart
- HCN Chart
- Cl2 Chart

Available charts

Data Reporting to Fire Department

Preliminary Air Monitoring Results Summary Table
 Monitoring Period: 10/19/2022 08:55 to 10/19/2022 11:55
 Resolute Forest Products Fire Site ER
 Menominee, Menominee County, Michigan

Location	VOC (ppm)	LEL (%)	CO (ppm)	O ₂ (%)	H ₂ S (ppm)	PM ₁₀ (mg/m ³)	PM _{2.5} (mg/m ³)	HCl (ppm)
	Screening Levels							
	0.5 ppm	5%	25 ppm	19.5% to 23.5%	0.1 ppm	0.05 mg/m ³	0.025 mg/m ³	1.8 ppm
C-01	0.0	0.0	0.0	20.9	0.0	0.009	0.003	0.0
D-01	0.0	0.0	0.0	20.9	0.0	0.012	0.006	0.0
F-01	0.0	0.0	0.0	20.9	0.0	0.006	0.004	0.0
H-01	0.0	0.0	0.0	20.9	0.0	0.004	0.003	0.0
SR-01	0.0	0.0	0.0	20.9	0.0	0.005	0.004	0.0
SR-02	0.0	0.0	0.0	20.9	0.0	0.004	0.003	0.0
SR-03	0.0	0.0	0.0	20.9	0.0	0.003	0.003	0.0
SR-04	0.0	0.0	0.0	20.9	0.0	0.003	0.003	0.0
SR-05	0.0	0.0	0.0	20.9	0.0	0.003	0.004	0.0
SR-06	0.0	0.0	0.0	20.9	0.0	0.002	0.002	0.0
SR-07	0.0	0.0	0.0	20.9	0.0	0.002	0.004	0.0

Notes: See last page.

- % - percent
- CO - carbon monoxide
- H₂S - hydrogen sulfide
- HCl - hydrogen chloride
- LEL - lower explosive limit
- mg/m³ - milligrams per cubic meter
- O₂ - oxygen
- PM_{2.5} - particles that are 2.5 micrometers and smaller
- PM₁₀ - particles that are 10 micrometers and smaller
- ppm - parts per million
- VOC - volatile organic compounds

Data tables reported to Menominee FD IC every 4 hrs



Surface Water Sampling



Sampling for PFAS required special procedures, handling, lab analysis

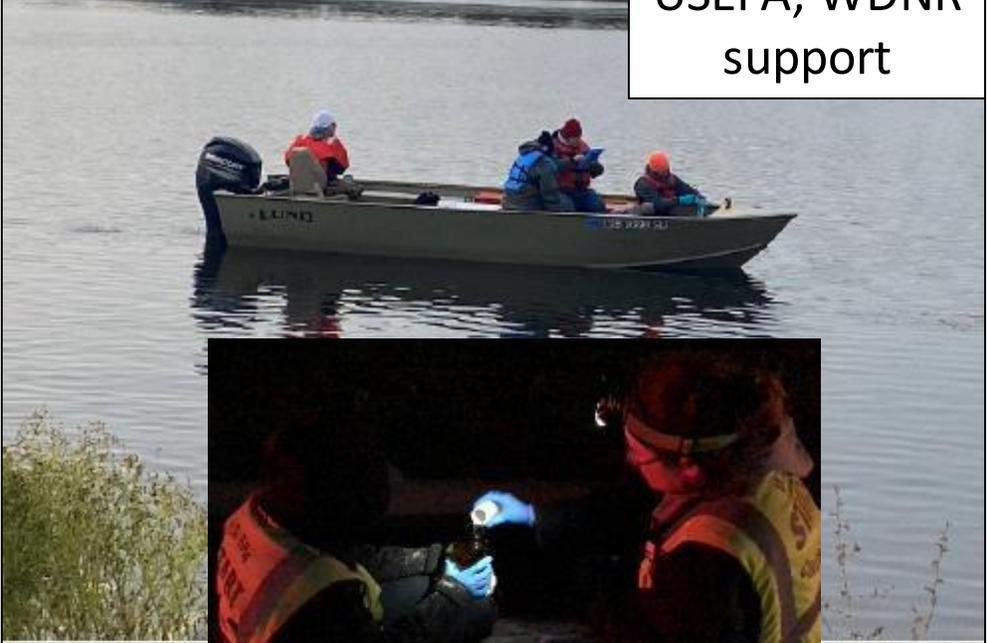
Analysis for hazardous substances including VOCs, SVOCs, metals, herbicides, PFAS

USEPA, WDNR support

Monitoring using pH paper, water quality meters



MDNR Fisheries support



IC Waters & NOAA Plume Models

Downstream Asset Report

Incident Description

Report Date and Time: October 06, 2022 at 11:00 PM

Incident Location:

Coordinate: 45.10043 Latitude, -87.60977 Longitude

Continuous Release with Concentration: 1.00 mg/l

Duration: 18.00 Hours

Approximate Location: 0.01 miles from Menominee, Menominee, Michigan

Agent Type: Chemical

Agent Name: Carbon Tetrachloride

Level of Concern: 0.005 ug/l

Half-life: 165 days

Flow Type: MHD Average

Velocity Factor: 1.000

Cutoff Time: 2.0 days

Flow (at release): 3515.44 cfs

Velocity (at release): 1.406 fps

Generated At: 10/7/2022 11:00:52 PM

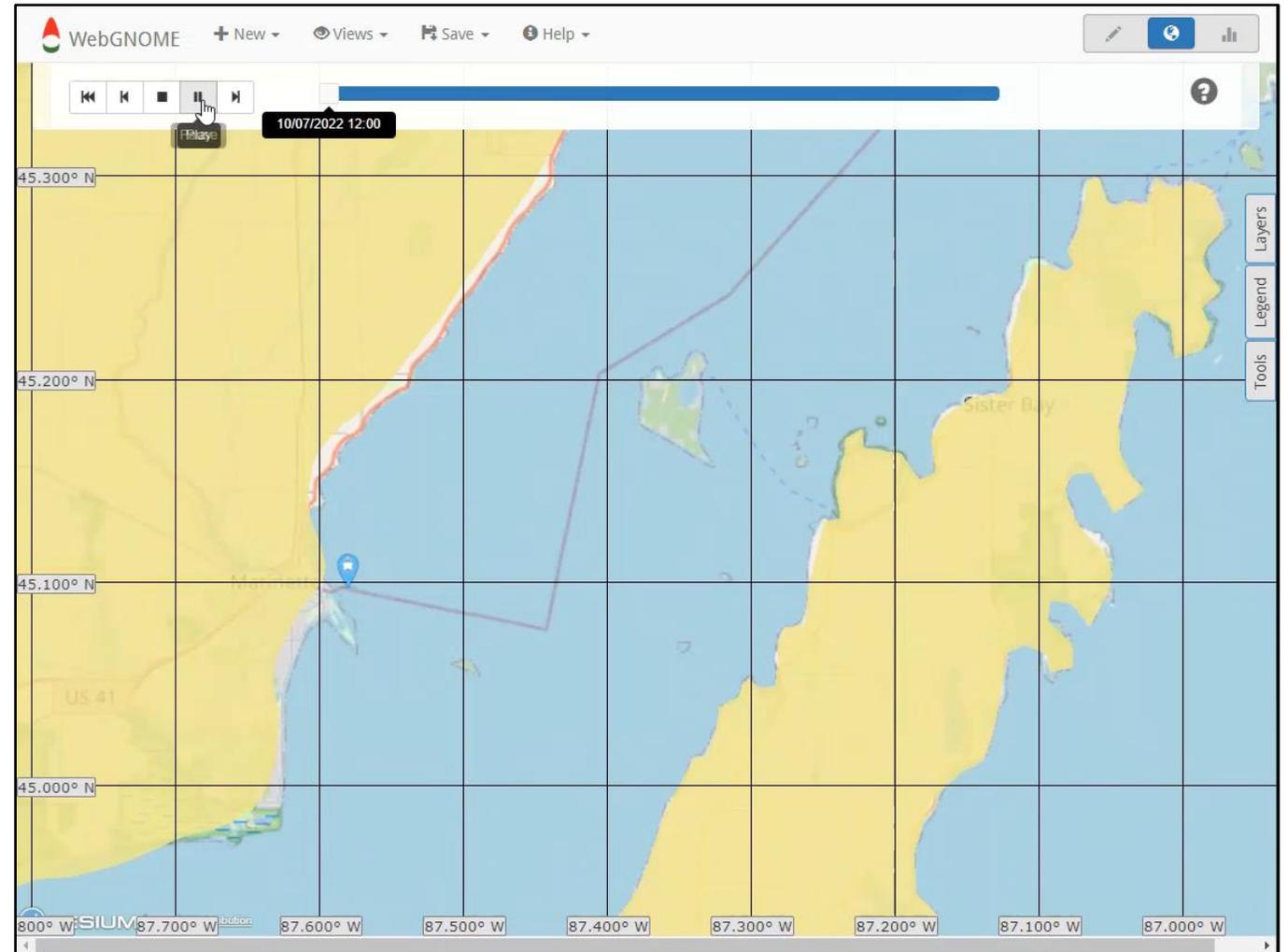


Public_Water_Supplies: Intakes

Public_Water_Supplies: Intakes

Downstream Trace

- Above LOC
- Transition Zone
- Below LOC
- - Above LOC, Tidal Region
- - Transition Zone, Tidal Region
- - Below LOC, Tidal Region



Operations Dashboard – Water Sampling

Menominee Michigan Warehouse Fire Dashboard

A Story Map    

Air Monitoring

Water Sampling

Air Sampling

Lab Results - Air Samples

Lab Results - Surface Water Samples

Lab Results - Water 6:2 FTS Chart

Recent Water Samples

Sample ID: MPF-SWS12-102122
Sample Time: 10/21/2022 14:45
Collection Method: Grab
Media: Stream/River
Sampler: H.Fournet

Sample ID: MPF-SW01-102122
Sample Time: 10/21/2022 11:42
Collection Method: Grab
Media: Stream/River
Sampler: H.Fournet

Sample ID: MPF-SWS01-102122-FB
Sample Time: 10/21/2022 11:11
Collection Method: Grab
Media: Stream/River
Sampler: H.Fournet

Sample ID: MPF-SWS01-102122
Sample Time: 10/21/2022 11:09
Collection Method: Grab

EPA Water Samples

169
Collected

Legend

EPA Water Sample Locations



EGLE Surface Water Sample Locations



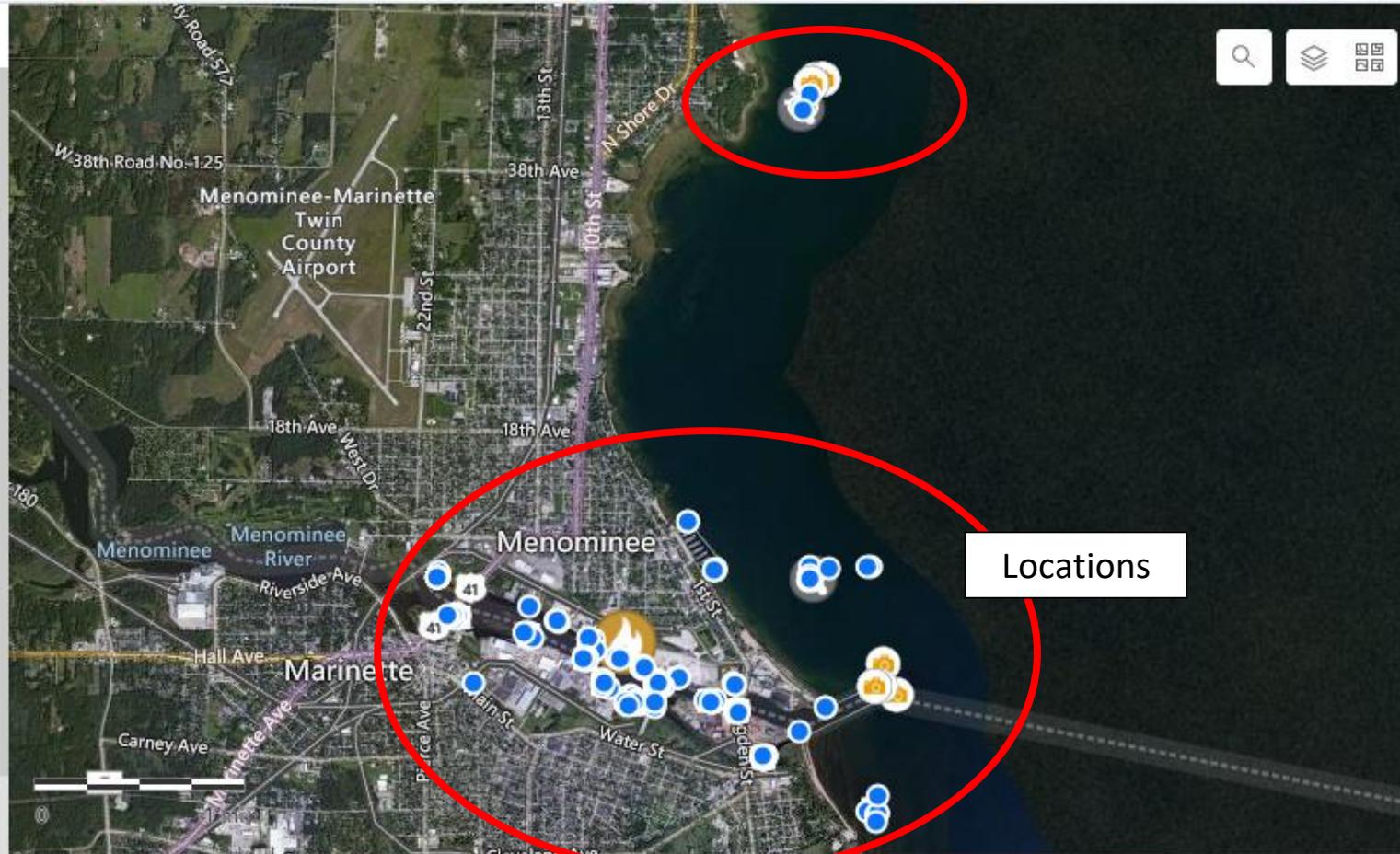
EGLE UAS Foam Observations - Oct 13 2022



Approximate Drinking Water Intake Locations



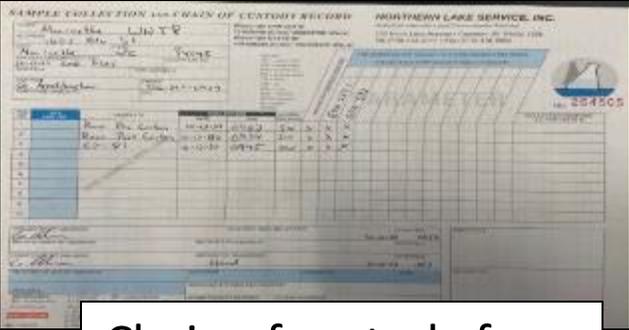
Menominee Paper Mill Fire Location



© 2022 Microsoft Corporation, © 2022 Maxar, ©CNES (2022) Distribution Airbus DS, © 2022 TomTom

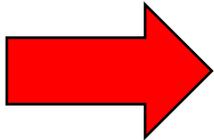
Powered by Esri

Drinking Water Sampling / Analysis

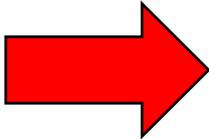


Chain of custody form

Samples taken from same tap at water plant



Samples labeled for direct shipment to laboratory



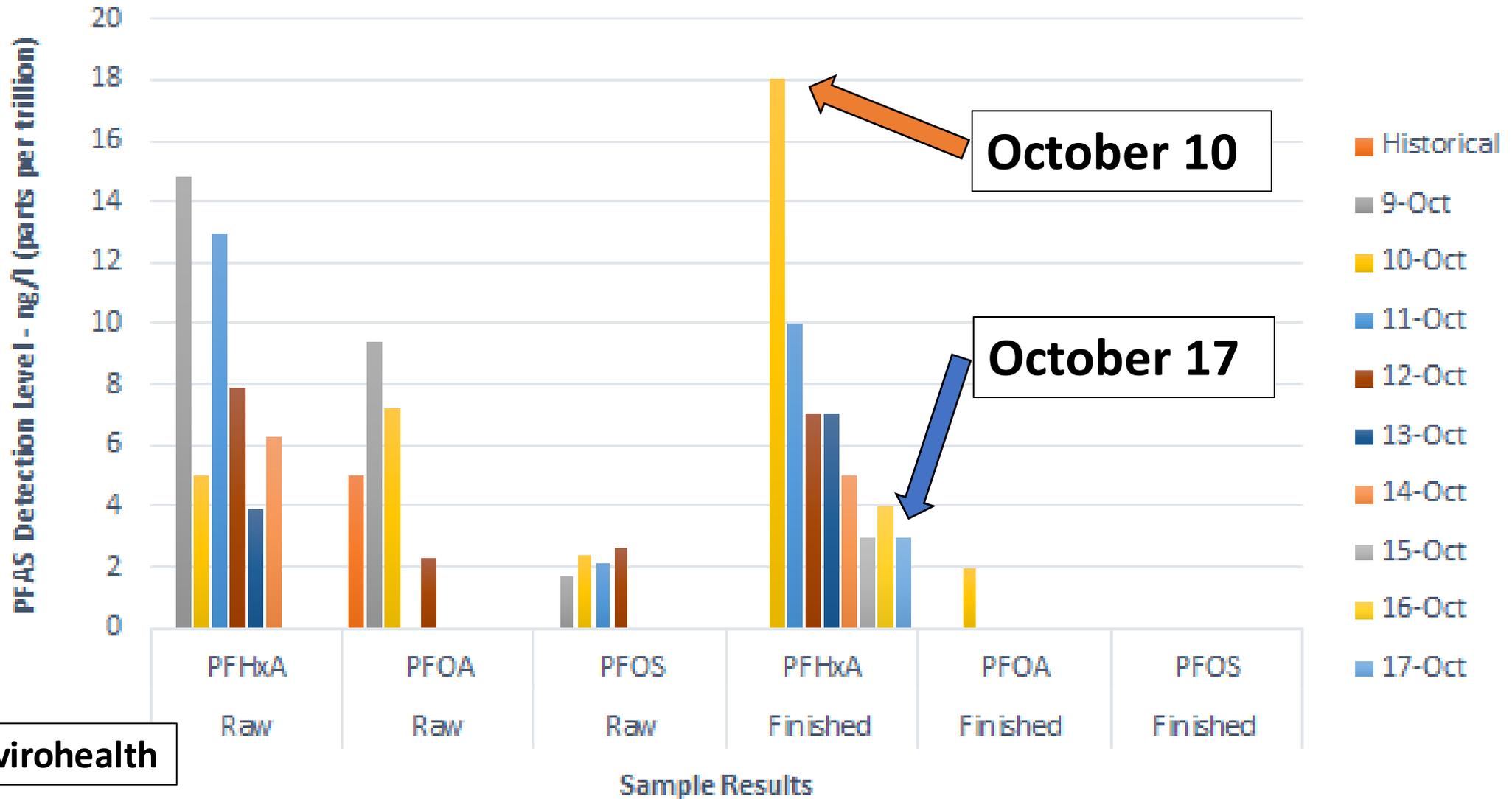
USEPA, WDNR, WDHS, MDHHS & EGLE, MPART provided technical assistance, data support

EPA Method 533 (solid phase extraction (SPE) liquid chromatography-tandem mass spectrometry (LC-MS/MS) for PFAS compounds) run on samples at qualified lab(s) following approved QAPP(s)

PFHxA: State of Michigan MCL of 400,000 ng/L in Finished Water

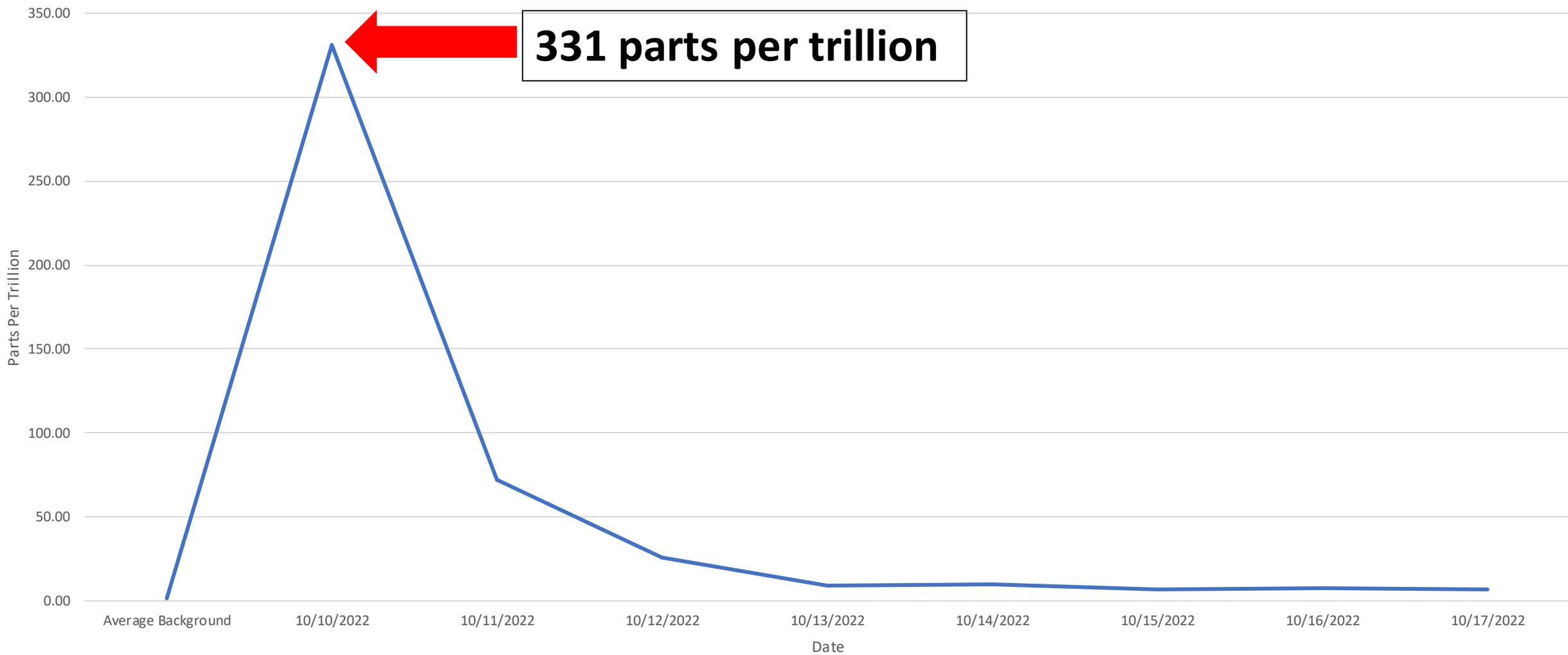
PFOA: State of Michigan MCL of 8 ng/L in Finished Water

PFOS: State of Michigan MCL of 16 ng/L in Finished Water



Michigan.gov/envirohealth

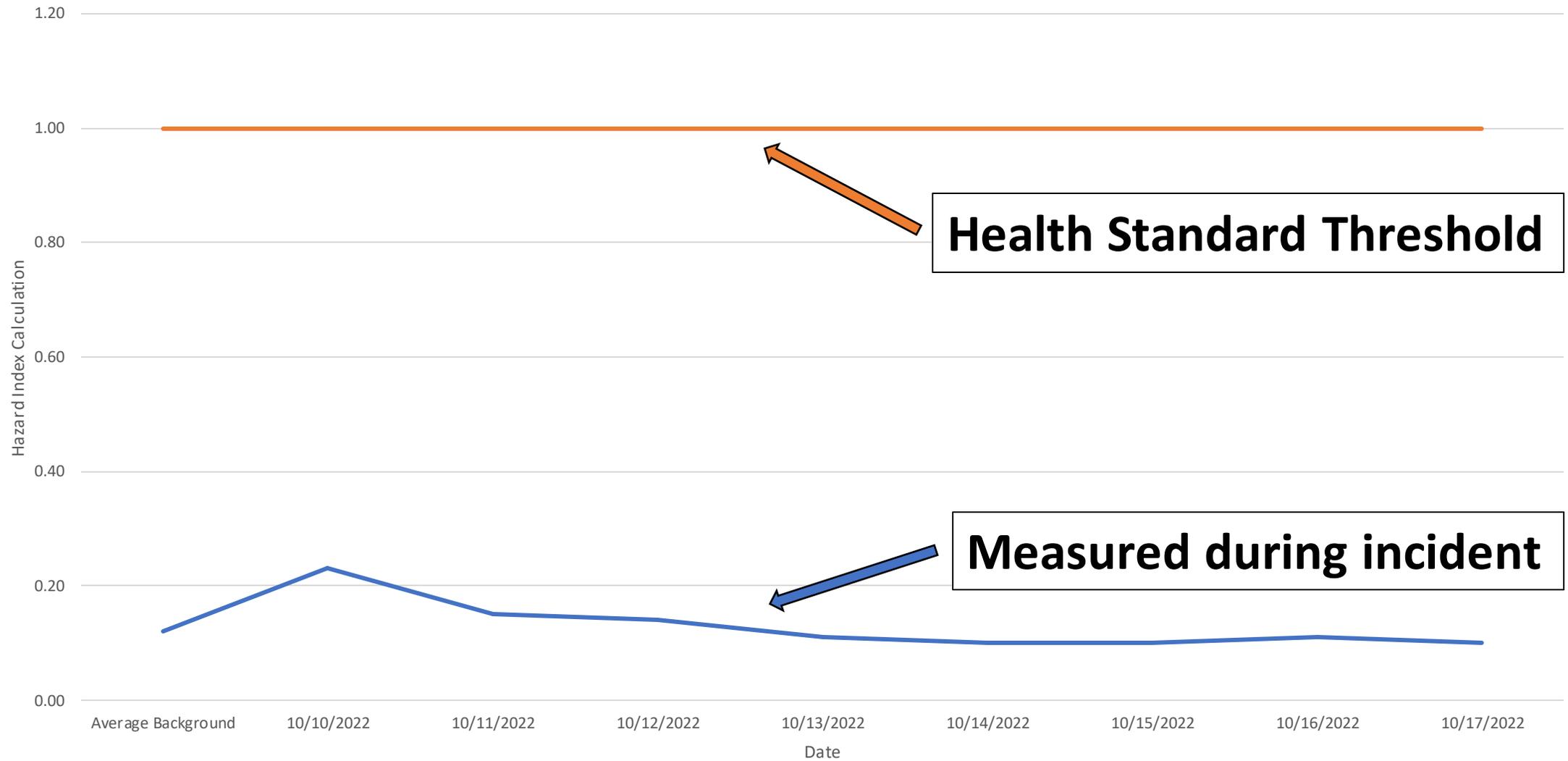
Marinette Drinking Water PFHxA Results
WI DHS Recommended Health Based Standard = **150,000ppt**



331 parts per trillion



Marinette Drinking Water Hazard Index Calculation



Series2



Response Organization

ICS - Unified Command



Menominee Warehouse

Site Location

Legend

Green Bay
(Lake Michigan)

Resolute Staging
(MI IMT ICP)



Warehouse



Marinette WTP
(UC ICP)



Menominee Michigan Warehouse Fire
ICS 207 – Organization Chart
20 Oct 0800 to 22 Oct 0800
Date: 19 October 2022

Unified Command

Jay Heckel - City of Marinette
 Brett Botbyl - City of Menominee
 Molly Bonjean - Marinette Co Health
 Tom Philipps - Menominee Co EMA
 Cody Heinze/Maizie Reif – WDNR
 Ashley Miller – EGLE
 Jerry Tiernan - MDHHS

Craig Thomas, Ralph Dollhopf (Deputy),
 Steve Renninger (Deputy) - EPA
 Tom Estock – Tyco
 Tom Willis – Chem Design
 John Groleau, Jim Balik - Resolute Forest
 Products
 Eric Burmeister - Marinette Co EMA
 Curtis Hedman - WDHS
 Mike Snyder – PHDM
 Cynthia Kuber – K&K logistics

Menominee Fire
 Incident Command
 Incident Commander – Capt. Maas
 Operations Chief – Capt. Bryant

State of Michigan
 Incident Command
 Incident Commander – Jeff Yonker
 Operations Chief – Jay Osterberg
 Liaison – Paul Rogers

JIC

Kathy Frank - Marinette Co EMA
 Rachel Linduska – EPA
 Katie Grant – WDNR
 Lana Bero – City of Marinette
 Scott Dean – EGLE
 Dayna Kapp – PHDM
 Jennifer Miller – WDHS
 Chelsea Wuth - MDHHS

Safety Officer
 Shanna Horvatin - EPA

Data Support Coordinator
 Jason Sewell - EPA

Liaison Officer
 Ronna Beckman - EPA

PFAS Advisor
 Jeffrey Kimble - EPA

Public Information
 Rachel Linduska – EPA
 Heriberto Leon - EPA

R5 EOC
 EOC Manager – Mike Bryant
 RSC Coordinator – Michelle Jaster

Operations Section
 Andy Maguire – EPA
 Brian Kelly – EPA (Deputy)

Planning Section
 Paul Ruesch - EPA

Finance Section
 Rick Hackley - EPA

Logistics Section
 Danny Nguyen - EPA

See Ops 207

Situation Unit
 Janien Turner - EPA

RESL
 Jeff Wawczak - EPA

Data Management Unit
 Matt Blaser - EPA

GIS Unit
 Brian Cooper – EPA
 Adam Peterca - START

ENVL
 Larisa Leonova – EPA
 Michelle Kerr - EPA

Supplies Unit
 Rob Snyder - EPA
 Cordell Renner - START

Menominee Michigan Warehouse Fire
ICS 207 – Operations Organization Chart
20 Oct 0800 to 22 Oct 0800
Date: 19 October 2022

Operations Section
Andy Maguire – EPA

Air Operations Branch
Mitchell McRae – MPD
Keegan Mackin – START
Michael Potter - ARCADIS

Water Sampling Group
Tom Asmus – EGLE
Matt Villicana – EPA (10/20)

**Air monitoring/Sampling
Strike Team**
EPA/START
Matt Villicana – EPA (10/20)

Fire Site Coordination Group
Brian Kelly - EPA

**Drinking Water
Sampling MI**
(1) AECOM

**Drinking Water
Sampling WI**
(1) City Marinette

Surface Water Team WI
(1) EPA/START
(1) Tyco/Arcadis
(1) ERRS - Happer

Surface Water Team MI
(1) EGLE/AECOM
(1) Tyco/Arcadis
(1) MDNR

**Fire Fighting Water
Management Team**
Jay Parent - EGLE

Fire Air Monitoring Team
Gerald Ball – ERT

**Unified Warehouse
Assessment Team**
Dave Morrison – EPA
Ashley Miller - EGLE
Michael Potter - Arcadis

MI Part 201 Team
Ashley Miller - EGLE
Michael Potter - Arcadis

Typical Daily Planning Cycle Meeting Schedule

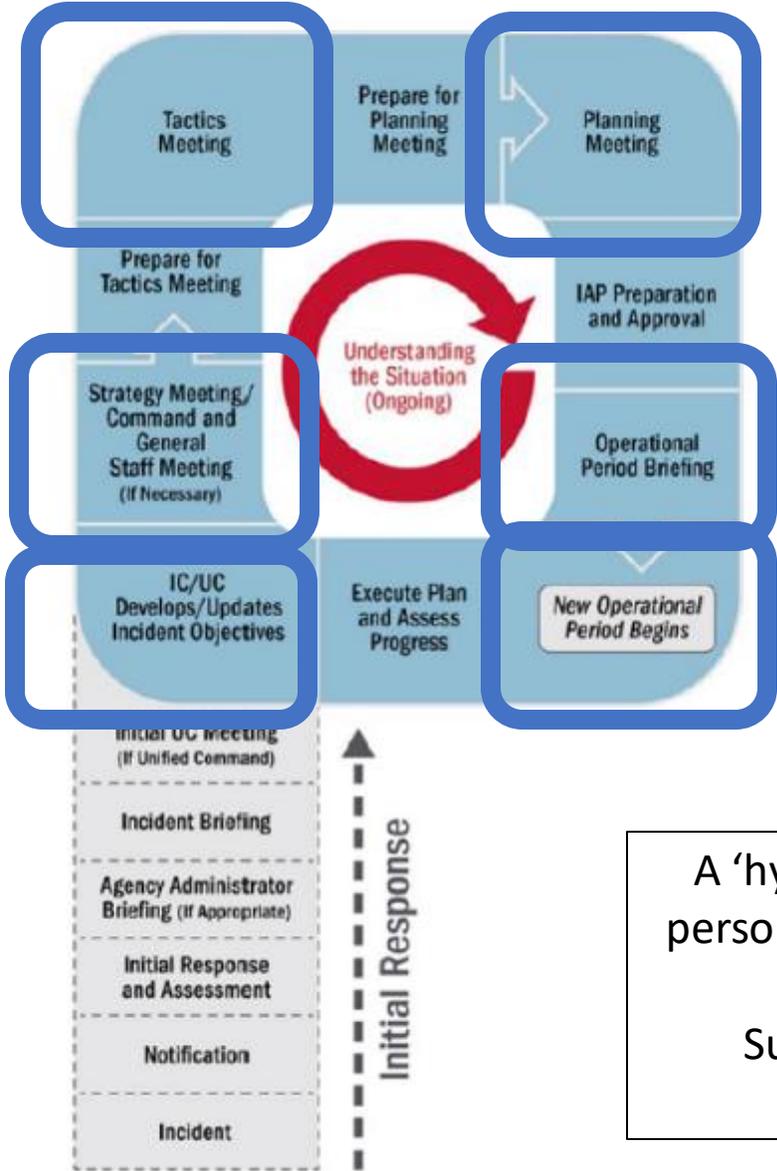
Tactics Meeting 1100

CGS Meeting 0900

UC Meeting 0845

Planning Meeting 1500

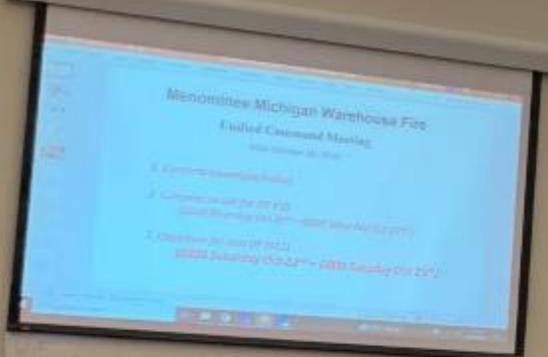
OPS Briefing Oct 22 @ 0800



A 'hybrid' approach was used with both in-person and virtual participation via MS Teams

Supported by City of Marinette Water Department

Unified Command Meeting Marinette Water Treatment Facility



Incident Objectives

1. Ensure the health and safety of the public and response personnel
2. Maintain a Unified Command with other federal, state, local agencies, and responsible parties
3. Identify contaminants of concern resulting from the involvement of products stored in warehouse that is on fire
4. Work collectively to extinguish the fire as quickly as possible
5. Manage all fire fighting and runoff water and prevent releases to surface waters
6. Ensure the protection of the drinking supply through sampling and appropriate system operations
7. Work with facility owner and tenants to control the fire scene and develop a strategy for cleanup of the site
8. Implement sampling and monitoring operations targeting contaminants of concern which may have impact to public health and coordinate with state and local public health agencies regarding exposure and public health thresholds for the following media
 - a. Drinking water
 - b. Surface water
 - c. Air
9. Coordinate messaging with local and state agencies to the affected public on assessment results and any associated public health impacts
10. Provide updates to congressional delegations, Tribal Nations and media regarding response progress
11. Initially assess natural resource impact through coordination with Michigan, Wisconsin, and USFWS
12. Evaluate and implement air & water monitoring/sampling reduction over the long term

Incident Action Plans

1. Incident Name Menominee Michigan Warehouse Fire		IAP COVER SHEET	
From: 10/22/2022 0800		To: 10/25/2022 0800	
<ul style="list-style-type: none"> • ICS 202 – Incident Objectives • ICS 203 – Organizational Assignments • ICS 204 – Assignment Lists • ICS 205a – Communications List • ICS 206 – Medical Plan • ICS 207 – Organizational Chart • Incident Map /Traffic Plan • ICS 223 - Safety Message • ICS 230 – Meeting Schedule 			
			
4. Prepared by: J. Wawczak		Date/Time: 10/21/2022 1800	
Approved by: Craig Thomas (EPA) 			
IAP COVER SHEET			

← Environmental IAP

Fire IAP →

Resolute Paper Mill Incident

Incident Number: 2022-10-07-701





3 Day IAP

Operational Periods:

Thursday, October 20-21, 2022 - 0630-0630
 Friday, October 21-22, 2022 - 0630-0630
 Saturday, October 22-23, 2022 - 0630-0630




Michigan Department of Natural Resources IMT
Incident Commander – Brian Mensch

QR Code opens IAP

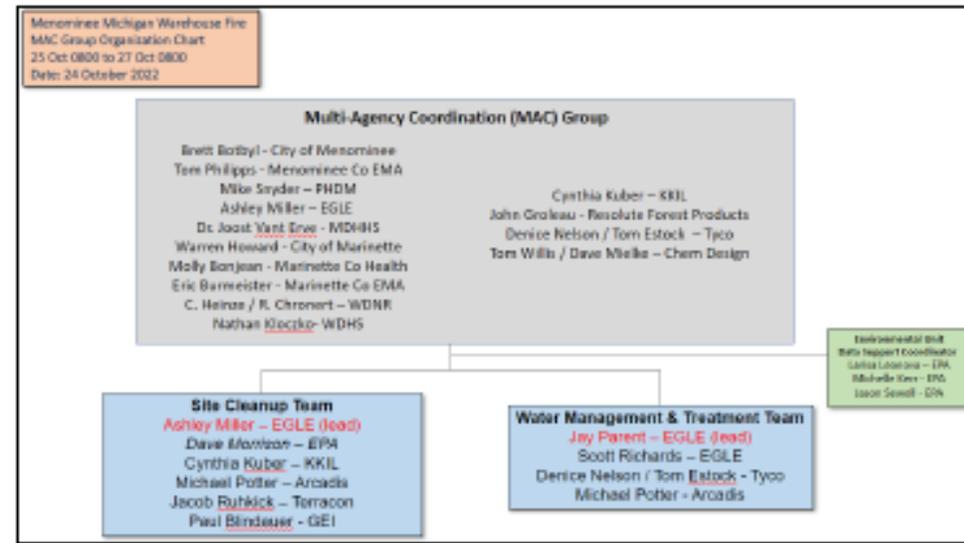


Situation Reports (daily)

1. Unit / Incident Name Menominee Michigan Warehouse Fire		2. Reporting Period (Date / Time) From: 10/21/2022 1700 To: 10/24/2022 1700		INCIDENT STATUS SUMMARY - ICS 209	
3. Activities during Reporting Period					
<ul style="list-style-type: none"> Unified Command transitioned to a Multi-Agency Coordination (MAC) Group (see Figure 1 org chart) Conducted site entry to conduct preliminary assessment on 10/22 (EPA, UWAT) (see Photo 1) Site recovery efforts (shipping waste/scrap, run-off water management) (see Photo 2) Perimeter air monitoring during site activity (EPA ERT) Surface water samples collected in the Menominee River and Lake Michigan (WDNR & EGLE) Screening of drinking water samples for presence of fire-related contaminants (municipalities) Investigated suspected sewer release of firefighting run-off water to Menominee River (EGLE) 					
4. Operational Metrics					
Task		Completed this OP		Total	
Air monitoring (5 perimeter)					
Air samples collected		0		37	
Preliminary air sample results received		0		10	
Surface water samples collected		0		207	
Surface water sample analyses received		0		59	
Firefighting water runoff samples collected		0		5	
Firefighting water runoff analyses received		0		3	
Fire debris removal		167		1195 loads / 21,707 tons	
5. Activities/Operations Anticipated In next Operational Period					
<ul style="list-style-type: none"> Schedule Multi-Agency Coordinating (MAC) Group meeting on 10/27 Transition site perimeter air monitoring from EPA ERT to site contractor (GEI) Demobilize EPA incident management team and resources Continue data analysis and interpretation with a focus on impact to surface water (EPA ENVL) Provide site updates to press via website as needed This is the final SitRep, future updates will be via PolRep 					
6. Personnel Assigned					
Organization		Total		Note	
U.S. EPA Region 5		25		5 on-site, 20 off-site	
U.S. EPA ERT		5		on-site	
U.S. EPA START contractor		3		on-site, off-site not counted	
Michigan DHHS		4		off-site	
Michigan EGLE		9		3 on-site, 6 off-site	
Michigan DNR		1		on-site	
Michigan State Police		1		on-site	
Wisconsin DNR		5		off-site	
Wisconsin DHS		1		off-site	
Delta & Menominee County Public Health		2		off-site	
Delta & Menominee, Marinette Co. EMAs		2		off-site	
Marinette County HD		1		off-site	
City of Marinette		1		off-site	
City of Menominee		1		off-site, excluding firefighters	

7. Attachments with clarifying information	
<ul style="list-style-type: none"> MAC Group organizational chart (Figure 1) Photos (Attachment 1) 	
8. External and Public Affairs Activities	
<ul style="list-style-type: none"> JIC operations concluded on 10/24 and transitioned to normal communication/coordination Future site updates will be posted on website at: https://response.epa.gov/menomineewarehousefire 	
9. Command Comments (Priorities, Emphasis, Objectives, etc.)	
<ul style="list-style-type: none"> Continue coordination with drinking water programs to review and evaluate PFAS water sampling data Continue coordination/meetings with MAC Group as needed Continue preparation and implement recovery phase plans for site (EGLE) 	
10. Prepared by: (Name, phone, e-mail) Janien Turner, 773-991-5024, turner.janien@epa.gov	Date/Time Prepared: 10/24/2022 1800

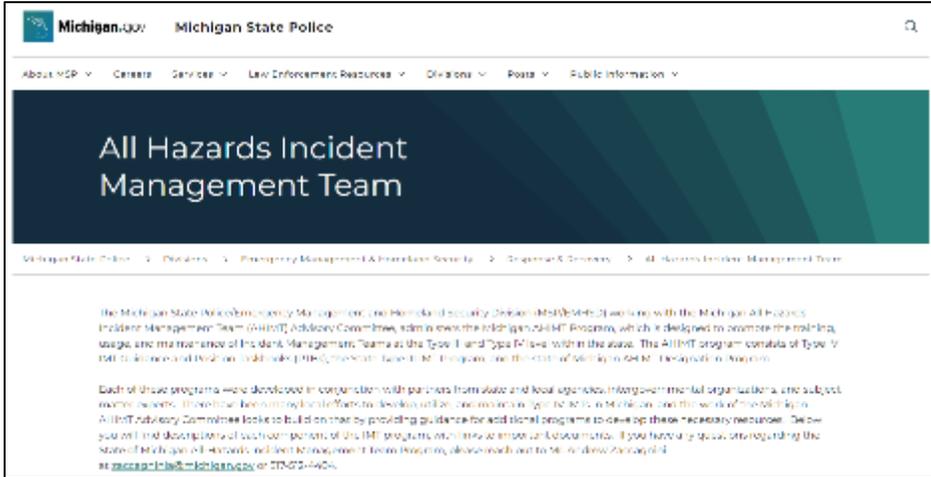
Figure 1. Organizational Chart (ICS 207)



Type 3 Incident Management Team



0700 Daily OPS Briefing – fire site



Menominee Michigan Warehouse Fire
MAC Group Organization Chart
17 Nov 0800 to 1 Dec 0800
Date: 1 December 2022

UC transition to Multi-Agency Coordination Group

Multi-Agency Coordination (MAC) Group

Brett Botbyl - City of Menominee
Tom Philipps - Menominee Co EMA
Mike Snyder – PHDM
Ashley Miller – EGLE
Dr. Joost van 't Erve - MDHHS
Warren Howard - City of Marinette
Molly Bonjean - Marinette Co Health
Eric Burmeister - Marinette Co EMA
C. Heinze / R. Chronert – WDNR
Nathan Kloczko- WDHS
Dave Morrison - EPA

Cynthia Kuber – KKIL
John Groleau / Jim Balik - Resolute Forest Products
Denice Nelson – Tyco
Tom Willis / Dave Mielke – Chem Design

**Environmental Unit
Data Support Coordinator**
Larisa Leonova – EPA
Michelle Kerr - EPA
Jason Sewell - EPA

Site Cleanup Team

Ashley Miller – EGLE (lead)
Dave Morrison – EPA
Cynthia Kuber – KKIL
Michael Potter – Arcadis
Tom Welch – Terracon
Paul Blindauer - GEI

Water Management & Treatment Team

Jay Parent – EGLE (lead)
Scott Richards – EGLE
Denice Nelson - Tyco
Michael Potter - Arcadis

Status – 12/2022

Daily drone footage provided by Menominee PD, EGLE, MDNR, EGLE, START and uploaded to PIX4Dcloud

12/4/2022

Demo/debris removal

Frac tank decon

Water Treatment



Building Demolition / Debris Removal



Debris / Scrap



Forklift battery removal

12/14/2022
facing N



1

2

3 - 5

6

7

Wastes are transported & disposed after consultation w/ EGLE at appropriate facilities



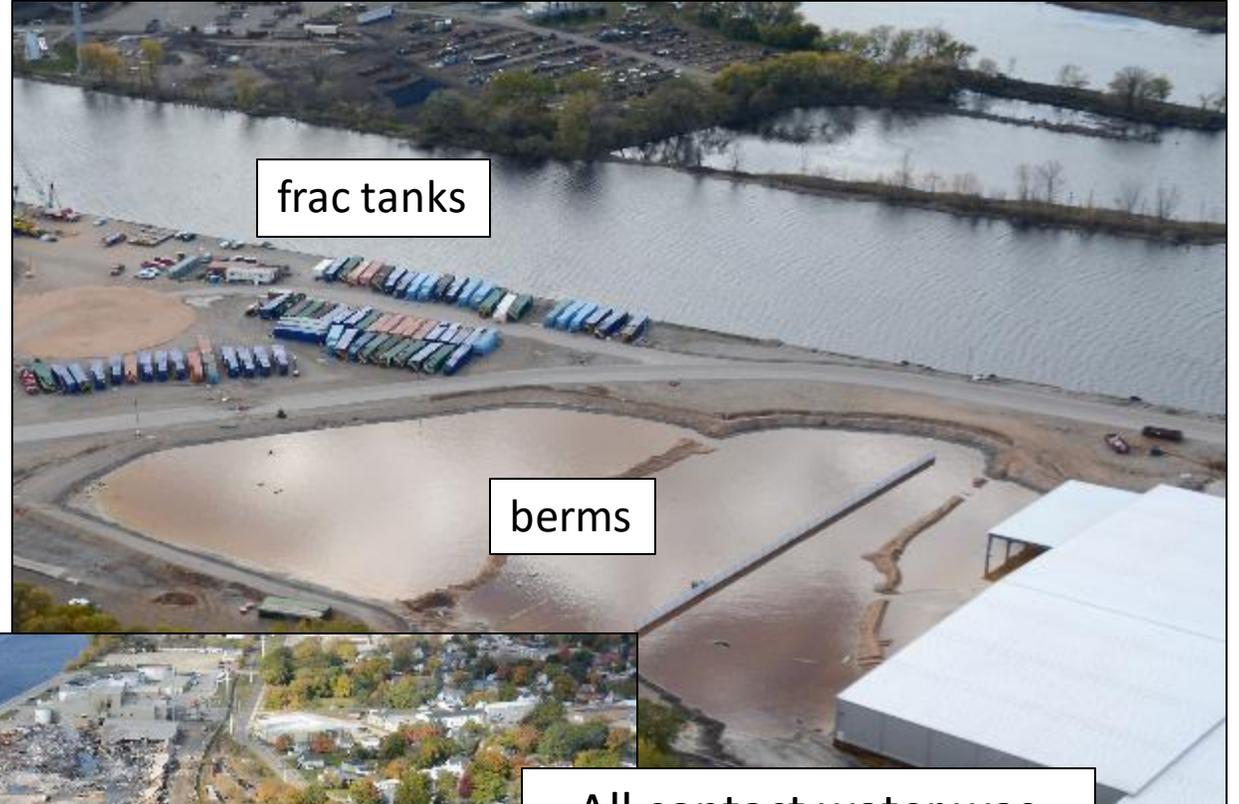
PFAS waste rail haul

Debris	~ 38,000 tons
Scrap	~ 500 tons

Water Containment



sumps



frac tanks

berms



totes



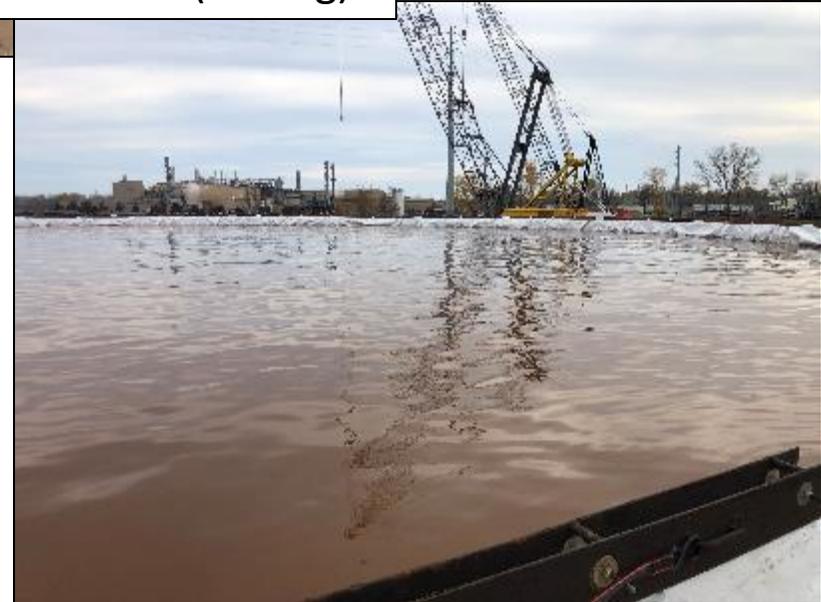
All contact water was transferred to lake tanks

Water Management

frac tanks (~ 174)



'Lake tanks' (1.5 mg)



Sorbents (sawdust, sand)



Vac trucks (9)

Water Treatment

12/14/2022
facing NW

Treated water discharged to
Menominee WWTP

discharge

spent GAC

treated

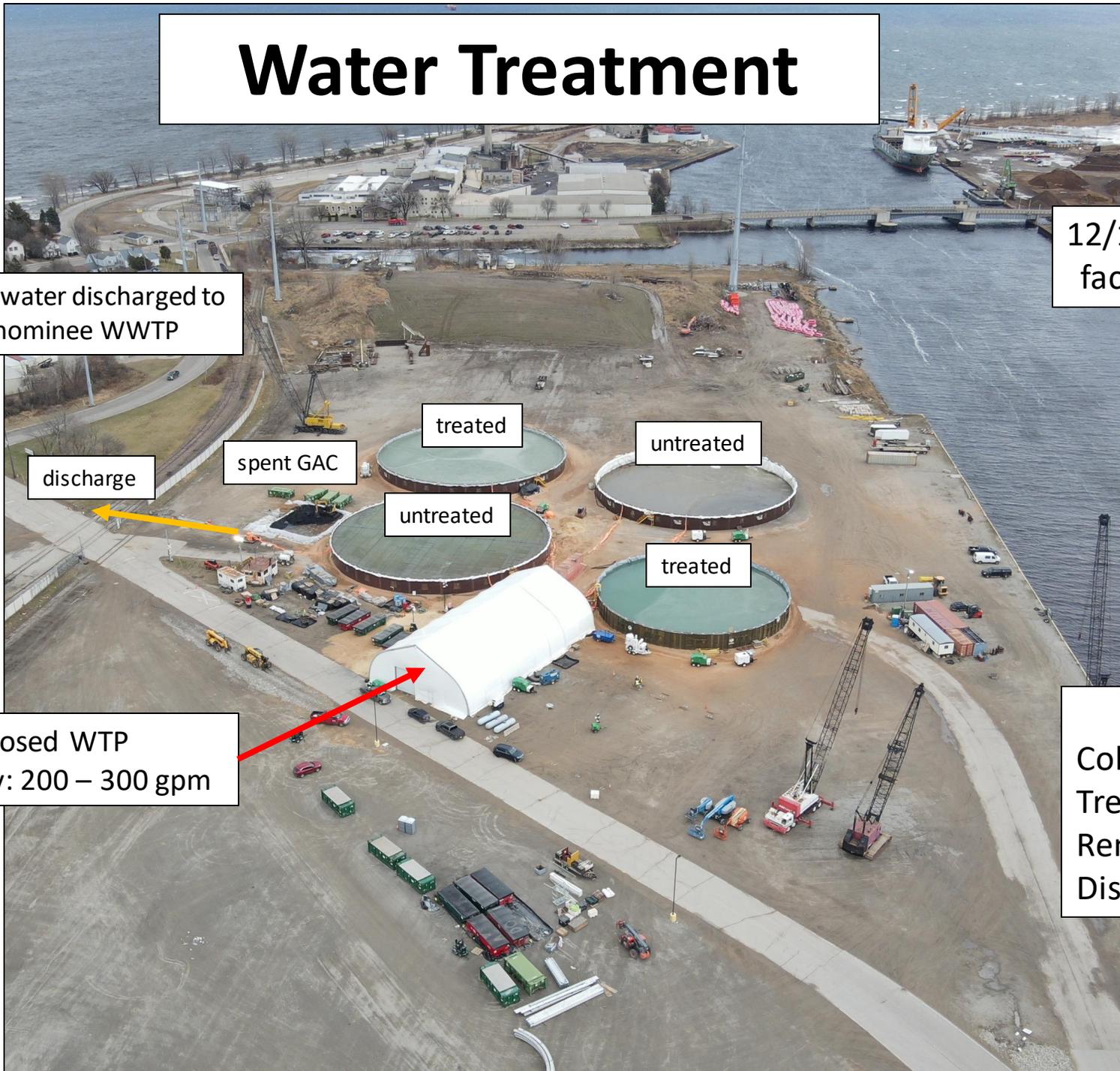
untreated

untreated

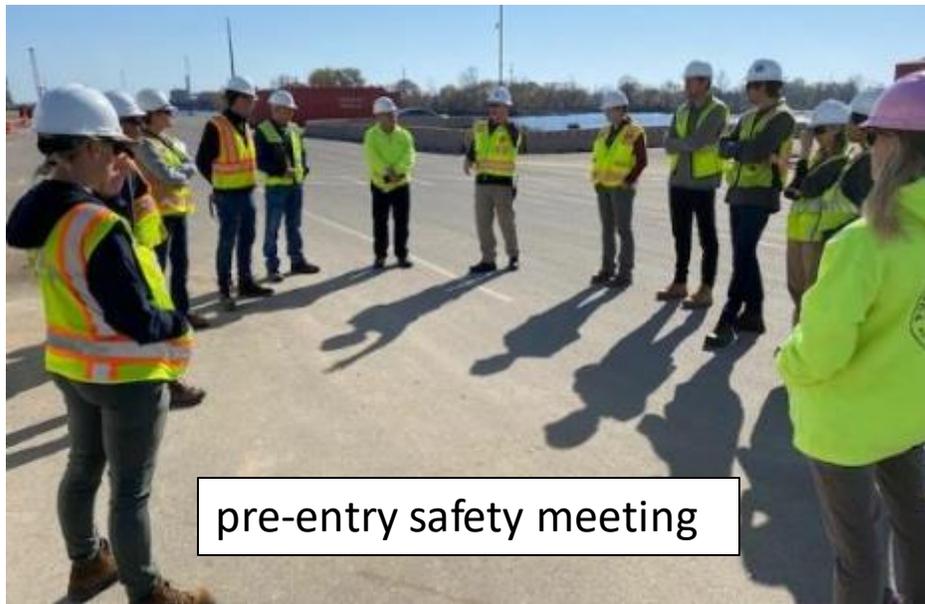
treated

Fully enclosed WTP
System capacity: 200 – 300 gpm

Estimates
Collected = 5.5 mg
Treated = 2.9 mg
Remaining = 2.0 mg
Discharged = 900k



Building 6 Assessment



pre-entry safety meeting



Visual assessment into building from perimeter

Unified Warehouse Assessment Plan

Plan Objectives

Upon implementation, the Plan will support the following Primary objectives:

- Assess acute risks to human health
- Assess potential ongoing threats of release to the environment
- Identify necessary stabilizing measures (i.e. overpacking, off-site shipment) to mitigate identified risks

These objectives, upon completion, will inform additional, iterative Secondary objectives including:

- Assessment and remedial measures necessary to mitigate non-acute environmental or human-health risks
- Insurance claims or adjustments
- Business continuity/restoration

Menominee Warehouse Fire
Menominee, Michigan

October 20, 2022

Version 1.0

Unified Warehouse Assessment Plan (Ver 1.0)

Approvals


United States Environmental Protection Agency

10/21/22

Date


Michigan Department of Environment, Great Lakes, and Energy

10/21/2022

Date

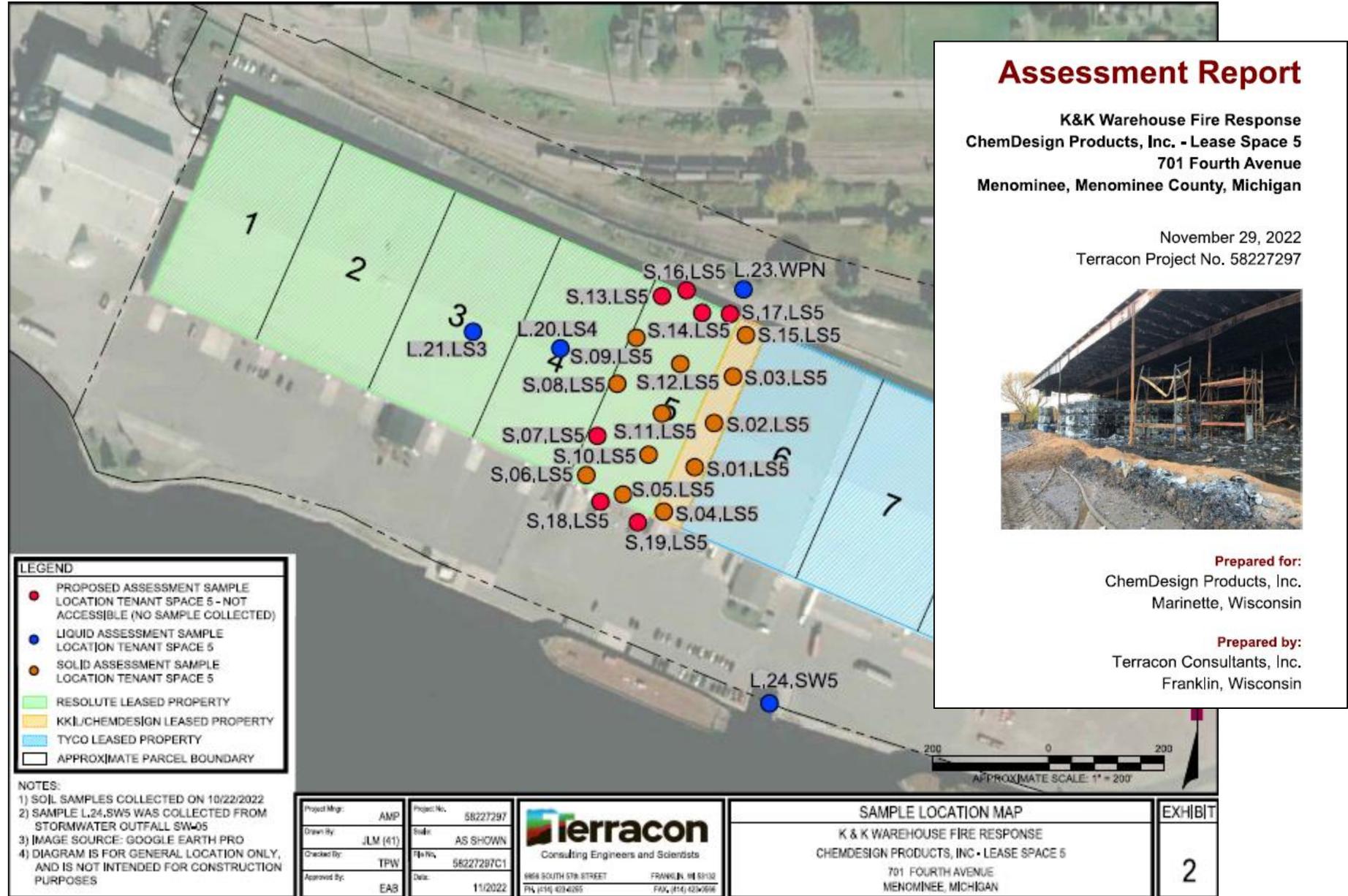


Building 6

- Assessment plan collaboratively developed
- Reviewed and approved by UC in 1 day
- Implemented together in single entry

Building 5

- Work performed by contractor for tenant
- Assessment conducted same day as Building 6
- Review by EGLE & MDARD





2/15/2023
facing N-NE

Buildings 1-6

1

2

3-5

6

7

8



2/15/2023
facing NE

Water Treatment

System/tanks currently being
deconed/ dismantled/demobilized

Treated = 4.7 mg

Menominee Michigan Warehouse

Multi-Agency Coordination (MAC) Group Meeting

February 16, 2023

Please mute laptop mic

Communications

- EGLE website:

<https://www.michigan.gov/pfasresponse/investigations/sites-aoi/menominee-county/menominee-warehouse-fire-aoi>

- EPA website:

<https://response.epa.gov/menomineewarehousefire>

The screenshot shows the Michigan PFAS Action Response Team website. The header includes the Michigan.gov logo and the team name. A navigation menu lists: Home, Drinking Water and Wells, Investigations and Sites, Workgroups, Fish and Wildlife, Public Engagement, Frequently Asked Questions, and About MPART. The main content area features a dark green banner with the title "Menominee Warehouse Fire Area of Interest (Menominee, Menominee County)". Below the banner, there is a breadcrumb trail: Home > Investigations and Sites > PFAS Sites and Areas of Interest. A section titled "EGLE Site Lead" identifies Ashley Miller as the lead, with contact information and a note that content was last updated on November 18, 2022. A "Background" section begins with a paragraph describing the fire at the Keweenaw Paper Products facility on October 6, 2022, mentioning the involvement of ChemDesign and TycoJohnson Controls, and the use of Class B firefighting foam.

The screenshot shows the OSC website page for the Menominee Michigan Warehouse Fire. The header includes the OSC logo and navigation links: Profile, Assets, Images, Documents, PWSR/ISPs, Contacts, Links, and Account. The main content area features a map of Michigan with a red pin over Menominee, a photograph of the fire at night, and a "Site Contact" section for Craig Thomas (OSCE) with his email address. The "Site Location" section provides the address: 701 4th Street, Menominee, MI 49858, and the coordinates. A "Site Update" section dated Monday, October 24, 2022, states that the Unified Command is transitioning to a Multi-Agency Coordination (MAC) Group, with Michigan I G-1 leading remaining fire-related activities. A footer note states that EPA's final data will be published after validation is complete. On the right side, there are sections for "Resources" (Documents, PWSR/ISPs, Contacts) and "Links" (Michigan PFAS Action Response Team).

Press Conference – 10/20



Purpose: Provide unified message on incident status, sampling/testing results and meaning

Press Coverage

Huge warehouse fire caused PFAS spike in Menominee, Marinette water

Published: Oct. 21, 2022, 12:09 p.m.

Menominee lifts shelter-in-place order after paper mill fire

Help feed firefighters in Menominee at warehouse fire



Mutual aid system 'critical' in helping put out Menominee warehouse fire

The Mutual Aid Box Alarm System has been in Michigan since 2003 and more than 600 fire departments have signed the agreement.

UPDATE: EPA adds air and water monitoring sites to check for pollution in Menominee paper mill fire aftermath

Menominee, Mich. warehouse fire out after burning for 16 days

by Molly Ruffing, FOX 11 News | Friday, October 21st 2022

2021 WNA Newspaper of the Year Vol. 158 - No. 124 Monday, October 17, 2022

*****CARD-RT L07PAC-G08
3000 01
MARINETTE WATER UTILITY 000
503 WATER ST
MARINETTE WI 54143-8720

EAGLE HERALD
Marinette Menominee

www.ehextra.com NO ONE DELIVERS *Local*

Twin City drinking water deemed safe

EPA says PFAS levels are up, but risk to the public is low

by DAN KOTKOWSKI
City of Menominee

MENOMINEE—Drinking water for both Menominee and Marinette are below dangerous levels of PFAS, the Environmental Protection Agency said in a press release Friday night.

The federal and state agencies responding to the Resolute Paper Products fire in Menominee stated that localized drinking water in Menominee and Marinette show PFAS levels below Michigan or Wisconsin health-based or regulatory standards.

In future sampling, show results show that levels based on regulatory standards for the water will be lower, and samples will be collected immediately, the EPA stated.

PFAS are a large group of man-made chemicals that do not occur naturally in the environment. PFAS chemicals were released during the ongoing Menominee warehouse fire and entered the Menominee River. As the investigation continues, workers should be aware that water could change, according to the EPA. Some one should...

www.MWR.com

Menominee warehouse fire officially out

By DAN KOTKOWSKI
Eagle Herald Staff

MENOMINEE — The Menominee Fire Department on Friday announced the fire is out at Resolute Paper Products/3K Integrated




Ruben Logisties, 701 4th Ave. The announcement was made in a press release from the U.S. Environmental Protection Agency, which has been the lead agency in providing information from Unified Command.

The fire started shortly before 11 p.m. on Oct. 6. It burned strong for several days eventually slowing down, but hot spots persisted for much of the next two weeks.

"After a thorough examination by on-site personnel and thermal imaging by drone, no hot spots or fire were found," according to Friday's statement. "The fire department met with the property owners who felt comfortable taking

10/17/22 FIRE on Page 62

NEWS > LOCAL NEWS > IN YOUR NEIGHBORHOOD > MARINETTE

Facebook Twitter Email

Two months later: Menominee, MI paper mill fire investigation continues

Questions ?

