## **PFAS Contamination:** Background, History & Current Understanding

## La Crosse Regional Airport

January 21, 2021



# Outline



- Introduction to PFAS • PFAS in Commercial & Consumer Products
- History & Uses of PFAS
- Timeline of PFAS Investigation at LSE • Private Well Sampling Update
- Next Steps



## Introduction to PFAS

What are PFAS?

- Large class of chemicals (>4000) containing carbon & fluorine
- "Forever Chemicals" do not breakdown in the environment
- Uniquely repel both water and oil
- Widely used in consumer & industrial products 1940s & on
- Aqueous Film Forming Foam ("AFFF")
- Class B Firefighting Foam

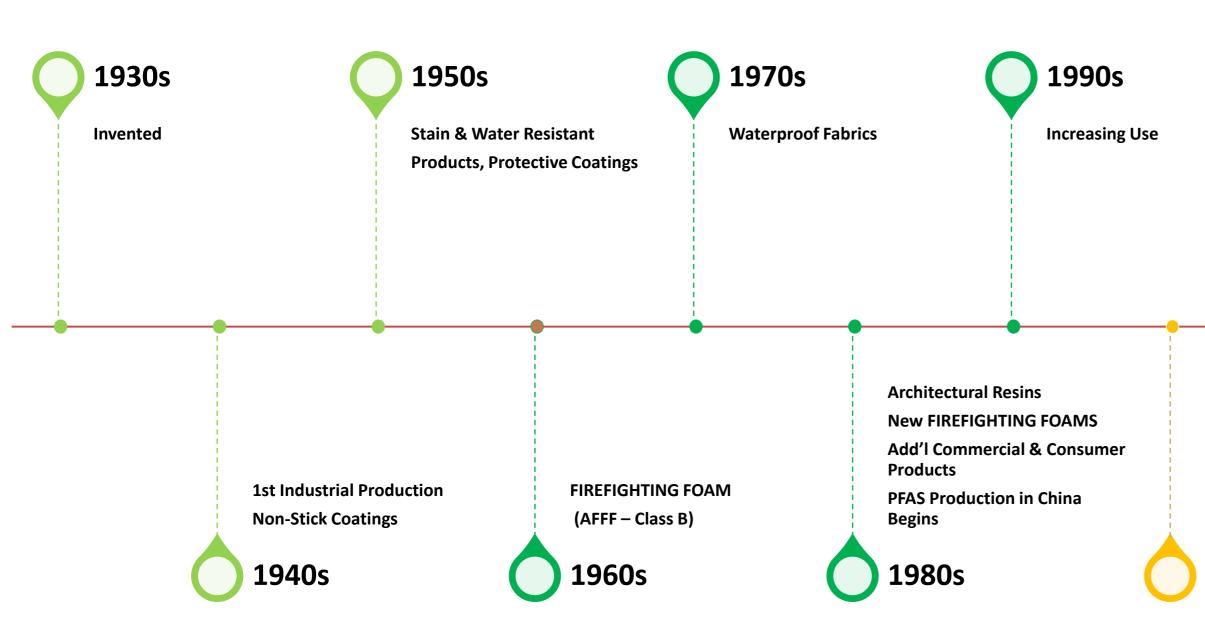


# Commercial & Consumer Products with PFAS

- Paper and packaging
- Clothing and carpets
- Outdoor textiles & sporting equipment
- Ski and snowboard waxes
- Non-stick cookware
- Cleaning agents & fabric softeners
- Polishes, waxes, & latex paints
- Pesticides & herbicides

- Spray lubricants
- Hydraulic fluids
- Windshield wipers
- Paints, varnishes, dyes & inks
- Adhesives
- Medical products
- Personal care products (ex., shampoo, hair conditioners, sunscreen, lipstick, cosmetics, toothpaste, dental floss)

## History of PFAS



### **2010**s

Early Study Human Blood in General Population 2012 EPA Unregulated Contaminant Monitoring Rule (UCMR) c. 2015 UCMR Sampling Public Water Systems 2016: EPA lifetime health advisory for 2 PEAS

2016: EPA lifetime health advisory for 2 PFAS

M. 2010s: DOD Investigates Military Sites

L. 2010s: PFAS Contamination Sites in Wisconsin

- Madison, Marinette, others

2000: 3M Voluntary Phase-out Early Environmental Sampling EPA regulates PFAS under TSCA US Reduction of PFAS begins

2000s

2019: WI DHS proposes groundwater standard for 2 PAS

L. 2020:WI DHS proposes groundwater standard for 16 additional PFAS



# Burn Pits Solvents Plume

Hanson Rd -

Vell 26

Richmond St

Lakeview-Dr

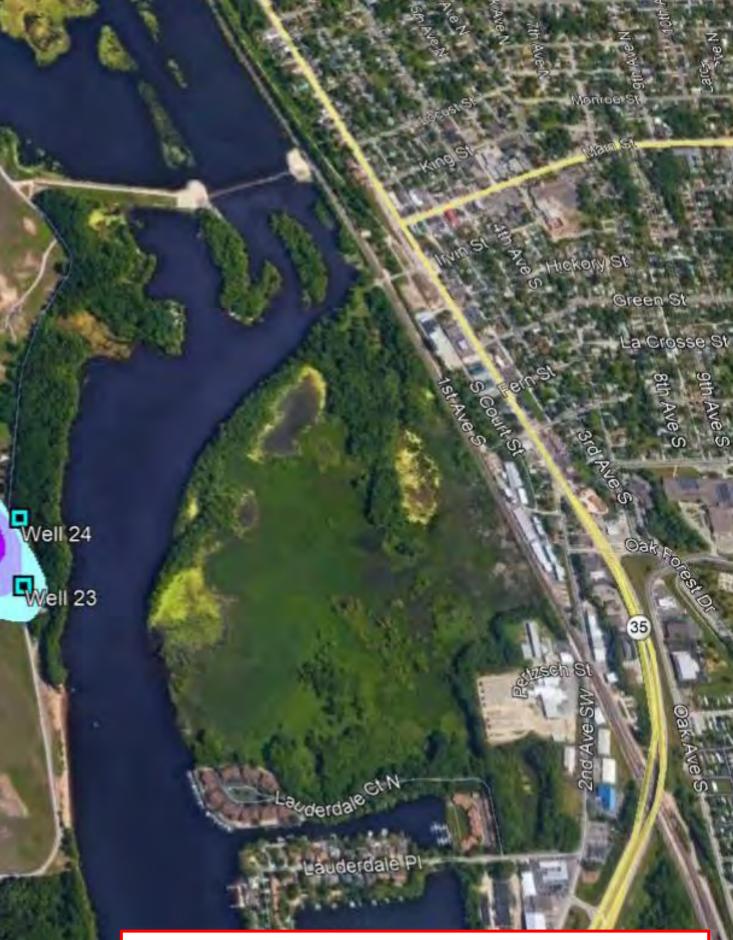
Spillway Dr

Plainview Rd

Dauphin St

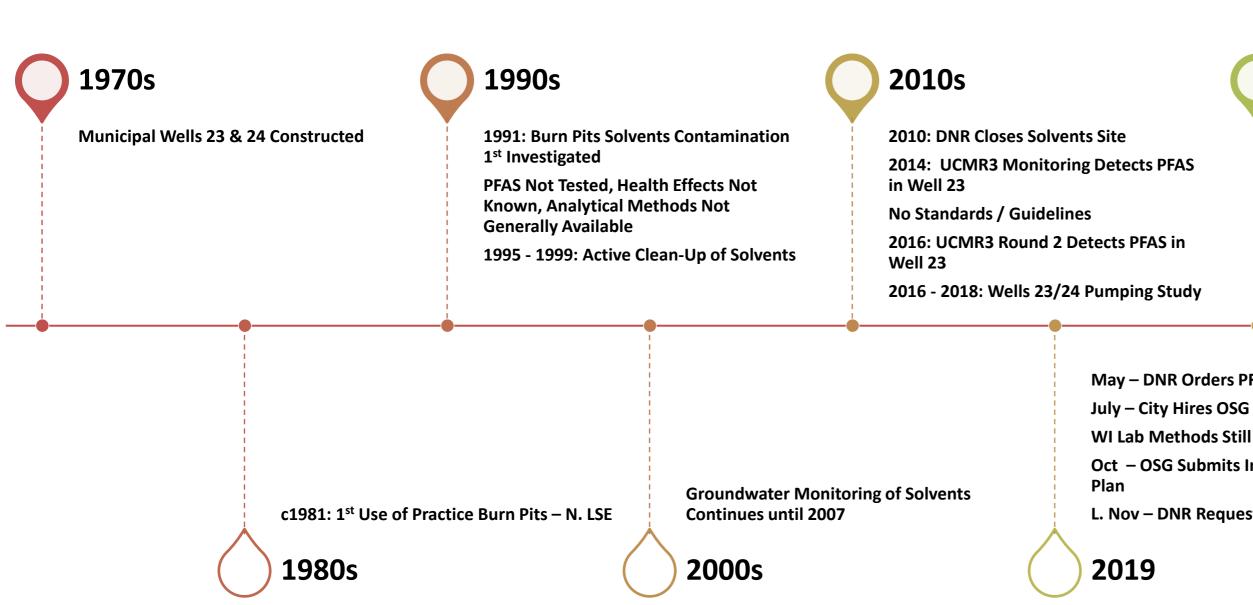
### 1980s Practice Burn Pits

Fisherman R



Generalized depiction of conditions for illustrative purposes only.

## Timeline of PFAS Investigation at LSE



	2020
AS	Feb - Mar – Work Plan Revisions
	Mar - Apr – DNR Approves Work Plan
	Mar – Wisconsin Safer-At-Home Order
in	Jun – Council Approves Funding
	Jul - Aug – Soil & GW Sampling Begins
udy	Sep – Results Indicate Risk to Neighbors
	Oct - Ongoing – Private Well Sampling

May – DNR Orders PFAS Investigation WI Lab Methods Still under development **Oct** – **OSG Submits Investigation Work** 

L. Nov – DNR Requests Expanded Scope

Private Well Sampling Expanded

**Private Well Sampling Continues** 

2021

**Continue Soil & GW Investigation** 

**Evaluate Well Options – Costs, Feasibility,** Timeframes

## Source Areas Investigated July 2020 - November 2020

Lakeview Dr

Spillway L

Google Eart

© 2020 Good

lainview Rd-



el So

Airport Fire Station

Former Fire Station

AFFF Test Area

Fisherman Rd

January :

2001 Crash Site

Fanta Reed Rd

Central PI-



B

Fanta Reed PI



## Generalized depiction of conditions for illustrative purposes only.

90

2000 ft



## Private Well Sampling (through January $20^{\circ}$

**125** wells sampled at **122** properties\* (10/27/20 - 1/18/21) **15** samples lab results from are pending 65 samples were **below** DNR's proposed standards 45 samples were above DNR's proposed standards

\* includes 122 in the Target Sampling Areas & 3 outside



## **PFAS Exceedances**

akeview D

Fanta Reed Rd

## Sum of Exceedances

< 20 ppt

20 – 99 ppt

100 – 1,000 ppt

> 1,000 ppt

Fishermen Rd

Fente Reed Pl

1st-Ave

0

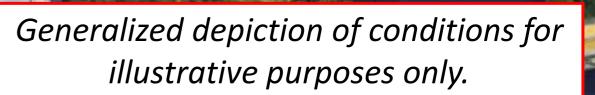
Mitchell St

Central Pl

Google Farth,

9 2020 Google

Steven Pl



Airport Beach



January 21, 2021

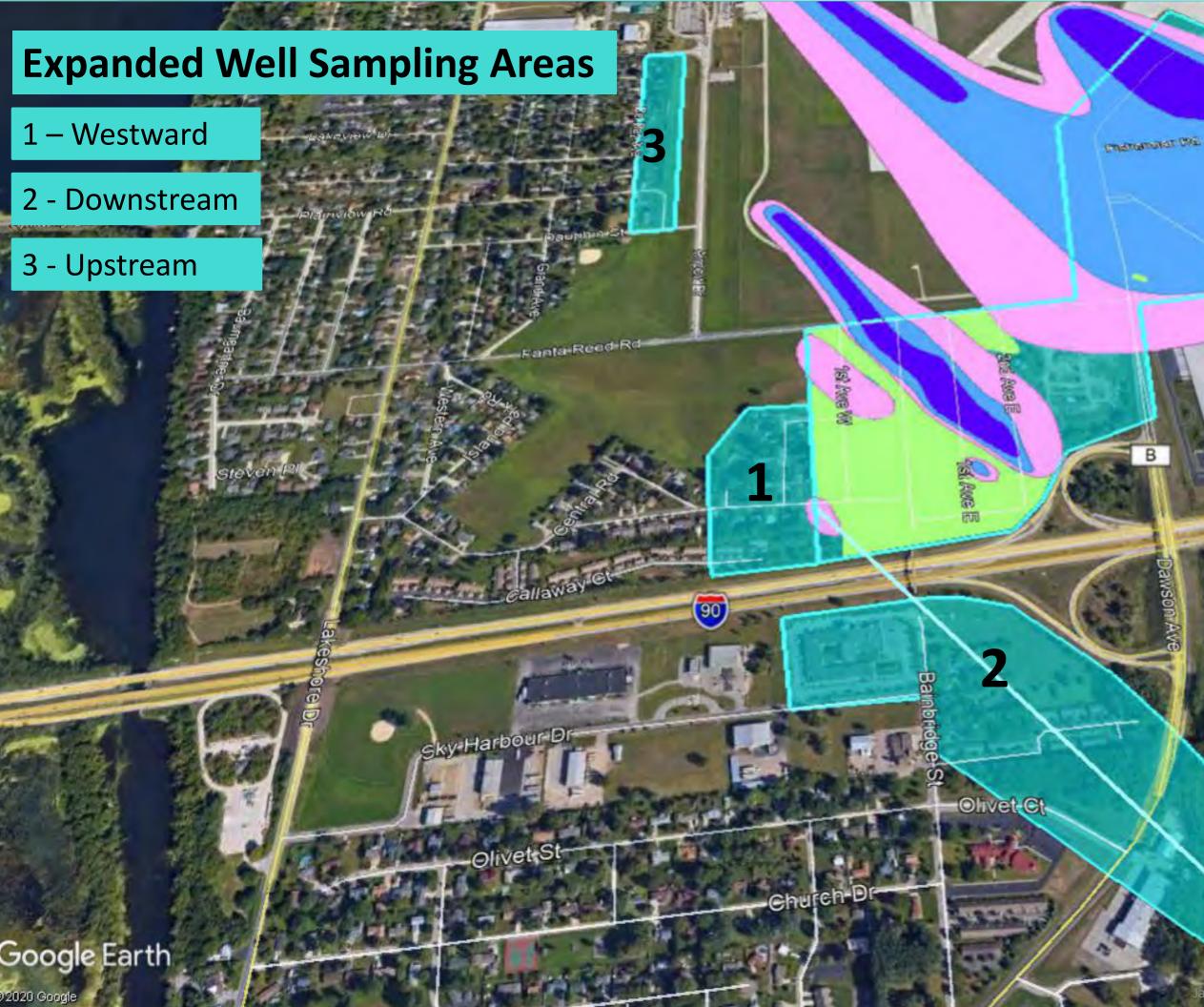
Vell 24

Well-24

No.

90

1000 ft



Generalized depiction of conditions for illustrative purposes only.

Airport Beach

## Next Steps

- $\checkmark$  Resample 8 10 wells that were just below standards
- ✓ Letters to about 50 Residents in Expanded Sampling Areas
- $\blacktriangleright$  Residents are sending access agreements to OS Group
  - $\succ$  Mail, email or online at City webpage
- > Continue sampling wells
- Preparing updates for the DNR
- Evaluating Water Supply Options Costs, Feasibility, Timeframes
- $\succ$  Continuing investigation of groundwater at the airport

## For more information

## • www.cityoflacrosse.org/wells

The OS Group **City of La Crosse** John Storlie, PG Tim Kabat, Mayor PFAS@theOSgrp.com 608-668-2718 608-789-7500

# kabatt@cityoflacrosse.org