

STOP POISONING OUR WATER

The PFAS Contamination Crisis In Marinette County

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POISONING

“ A substance that causes injury, illness, or death, especially by chemical means”

The American Heritage Dictionary

PFAS = POISON



WHAT ARE PFAS?

(Pronounced “P- FAS”)

- Per- and polyfluoroalkyl substances (PFAS) are a group of **man-made chemicals** that don't occur naturally in the environment. There are thousands of different PFAS compounds including PFOA, PFOS , and “GenX” formulations. PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s. The EPA has determined that some PFAS compounds are “Toxic.”

“FOREVER CHEMICALS”

- PFAS compounds don't break down in the environment and are often called the “**forever chemicals.**” Once they enter our bloodstream their presence can be detected for decades.
- PFAS are also **Bioaccumulators.**
Bioaccumulation occurs when an organism absorbs a substance at a rate faster than that at which the substance is lost. Even relatively small amounts can build up over time in the human body.

PFAS CAN BE FOUND IN:

- Food packaged in PFAS-containing materials, processed with equipment that used PFAS (microwave popcorn bags for example)
- Commercial household products, including stain- and water-repellent fabrics, nonstick products (e.g., Teflon), polishes, waxes, paints, cleaning products,
- **Fire-Fighting Foams** (a major source of groundwater contamination at airports and military bases where firefighting training occurs).

PFAS HEALTH RISKS

- affect growth, learning, and behavior of infants and older children
- lower a woman's chance of getting pregnant
- interfere with the body's natural hormones
- increase cholesterol levels
- affect the immune system
- increase the risk of cancer(for (PFOA)
- thyroid hormone disruption (for PFOS)
- testicular cancer

WATER INGESTION

- ***Drinking water*** is a source of exposure in communities where these chemicals have contaminated water supplies. Such contamination is typically localized and associated with a specific facility. (Tyco)

FOOD INGESTION

People can be exposed to low levels of PFAS through *food*, which can become contaminated through:

- Eating Fish living in Contaminated Water (Tyco)
- Eating Food grown in Contaminated soil or watered with Contaminated water(Tyco)
- Food packaging containing PFAS
- Equipment that used PFAS during food processing.

AFFF PFAS CONTAMINATION SOURCE #1

TYCO/JOHNSON CONTROLS FIRE TECHNOLOGY CENTER



CONTAMINATION EXAMPLES



BIOSOLIDS

- A bi-product of the Wastewater Treatment are biosolids or sludge. This sludge has been tested and found to have significant PFAS concentrations of **210,000 PPT PFOS**, and **10,000 PPT PFOA**. This sludge which would normally be removed and spread on agricultural land but is now being held at the plant at the request of the DNR.

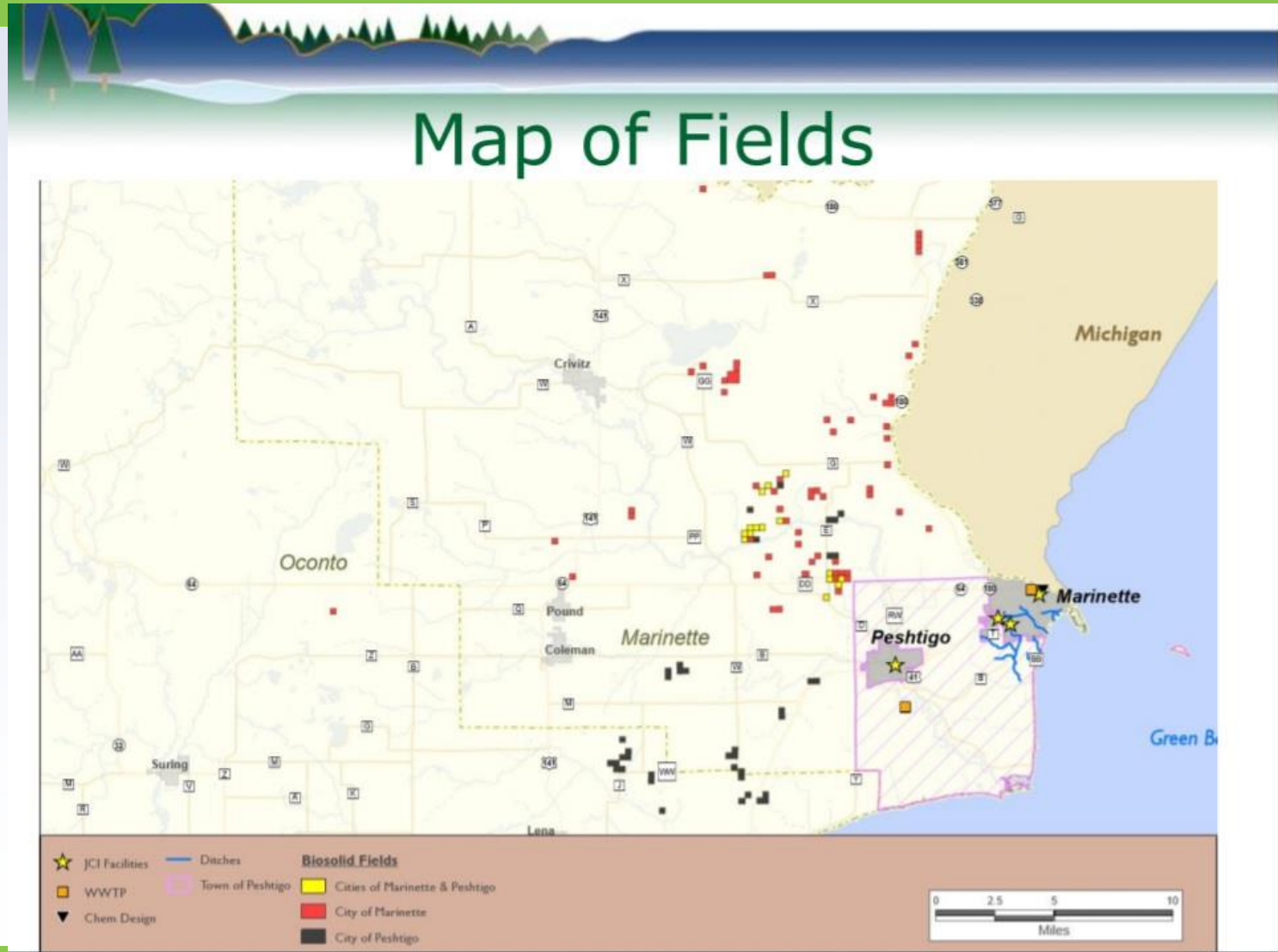
BIOSOLIDS CONTAMINATION SOURCE #2

- For over 20 years, Tyco has flushed AFFF foam down the sanitary sewers at both the FTC location and the manufacturing plant at Stanton Street. This was done routinely as foam was tested as part of its manufacturing process inside these plants. PFAS contamination in the sewer has also come from ChemDesign on Stanton Street.

THE BIOSOLIDS NIGHTMARE

- The sludge from the Marinette Plant has been spread on local agricultural fields for well over 20 years at 72 different locations. None of these fields have been tested for PFAS contamination nor have any of the private wells on those properties. The Biosolids from the Marinette Plant will never be allowed to be spread again on agricultural fields until all PFAS has been eliminated from the plant.

BIOSOLIDS DISPOSAL LOCATIONS



PFAS IS NOT REGULATED

[Business](#)[Licenses & Regulations](#)[Recreation](#)[Env. Protection](#)[Contact](#)[Join DNR](#)

▲ Are PFAS regulated by the federal or state government?

Currently, there is limited regulatory authority of PFAS at the federal level. In 2016, the EPA issued a non-enforceable [Lifetime Health Advisory level for PFOA and PFOS](#) [exit DNR] of 70 parts per trillion (ppt) in drinking water. Presently, PFAS is not a hazardous substance subject to the federal Superfund cleanup law or a hazardous waste subject to federal Resource Conservation and Recovery Act (RCRA) hazardous waste treatment, disposal or storage requirements.

The state DNR currently has authority to require that persons who cause hazardous substance discharges of PFAS or environmental pollution to take action to protect human health and the environment under [Chapter 292, Wisconsin Statutes](#) [exit DNR].

DNR's Water Quality Program has authority to regulate discharges to surface water on a site-by-site basis in accordance with the federal Clean Water Act. Solid waste containing PFAS must be managed in accordance with state law.

With respect to groundwater, the [Wisconsin Department of Health Services \(DHS\) has recommended a groundwater standard of 20 ppt](#) [exit DNR], which is a combined standard for PFOS and PFOA. In order for that recommended standard to be implemented as law, the groundwater standard will need to go through the state's formal rulemaking process. Until that time, persons undertaking groundwater cleanups of PFAS contamination are required to work with DNR and DHS to establish a site-specific cleanup standard.

For more information, visit [NR 140 groundwater quality standards update](#).

AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY (ATSDR)

The ATSDR CDC issued a 2018 draft report that states the current EPA HAL 70 PPT may be too high by as much as a factor of ten and suggests an appropriate HAL could be as low as:

- **7 PPT for PFOS**
- **10 PPT for PFOA**

VERMONT'S HAL

- Vermont's health advisory level for the sum of five PFAS should not exceed **20 PPT (parts per trillion)** in drinking water. The five PFAS chemicals are:
- PFOA (perfluorooctanoic acid)
- PFOS (perfluorooctane sulfonate)
- PFHxS (perfluorohexane sulfonic acid)
- PFHpA (perfluoroheptanoic acid)
- PFNA (perfluorononanoic acid)
- “If your water has been tested and the total sum of the five PFAS is more than 20 PPT, ***we recommend not using your water for drinking, food preparation, cooking, brushing teeth, preparing baby formula, or any other manner of ingestion.*** Use bottled water instead or water from a known safe source. ***Do not use water containing the five PFAS over 20 PPT to water your garden. The PFAS could be taken up by the vegetables.***”

MICHIGAN

- **Michigan has just set a new drinking water standard of:**
 - **PFOA 9 PPT**
 - **PFOS 8 PPT**
 - **PFNA 9 PPT**
 - **PFHxS 84 PPT**
 - **PFBS 1,000 PPT**
- **Surface Water discharging into rivers & lakes (Wastewater Treatment facilities included)**
 - **PFOS 11 PPT** (waters protected as drinking water source)
 - **PFOS 12 PPT** (waters protected as non-drinking water source)
 - **PFOA 420 PPT** (waters protected as drinking water source)
 - **PFOA 12,000 PPT** (waters protected as non-drinking water source)

WISCONSIN

- Wisconsin Department of Health has recommended a combined 20 PPT PFOA/PFOS for Groundwater
- For comparison, the allowable limits for Arsenic in drinking water is 500 times higher than PFAS. In other words, drinking small amounts of rat poison is safer than drinking extremely smaller amounts of PFAS.

PFAS MYTH #1

- *“DHS & DNR are recommending a mandatory 2 PPT clean-up standard.”* **NO THEY ARE NOT.** The 2 PPT Preventative Action Limit (PAL) is a trigger causing the DNR to review different options, including further monitoring or no action at all. **Triggering the PAL does not require the site to take remedial action.**

PFAS MYTH #2

- *“PFOA and PFOS are no longer manufactured in the United States therefore the contamination being found is just legacy pollution.”* **NOT TRUE.** There are thousands and thousands of gallons of biosolids being held at the Marinette Wastewater Treatment Plant that are highly contaminated with PFOA and PFOS collected in the last 18 months. That’s not legacy pollution. Shorter chain compounds have been found to be unstable and transition to other forms of PFAS such as PFOA and PFOS. Products containing PFOA and PFOS are still being imported into the country.

PFAS MYTH #3

- *“Only PFOA and PFOS are a health concern.”*
 - The lack of studies on the GenX and other PFAS compounds are not “proof” of their safety but represent the opposite: “no proof” of their safety
 - Vermont for example, already includes some GenX compounds in their combined HAL of 20 PPT
 - North Carolina recently won a \$12 million settlement against the Chemours Fayetteville Works Plant for GenX contamination of the City’s water supply

AB 323/SB 310:

AN ACT to create 299.48 of the statutes; relating to: regulating fire fighting foam that contains certain contaminants and granting rule-making authority.

Had this been the law twenty years ago, none of the PFAS well contamination from the Tyco Fire Technology Center would have happened. AFFF fighter fighting foam containing PFAS was used for training purposes and testing of the foam mixtures was done without proper containment measures to ensure it did not enter the environment and groundwater.

Additionally, we have requested and Rep. Nygren has agreed to introduce an amendment that would prohibit the disposal of fire fighting foam containing PFAS through sanitary sewers which would affect future biosolid contaminations in wastewater treatment facilities across Wisconsin.

We strongly support this bill with this amendment and thank our Rep. John Nygren, and Senator Cowles for their sponsorship of it.

AB 321/SB 302:

AN ACT to amend 292.31 (1) (d) (intro.); and to create 20.370 (4) (aa), 20.370 (4) (ab), 20.370 (4) (ad), 20.370 (4) (ae), 20.370 (4) (ak), 160.07 (4) (f), 160.07 (7), 160.15 (4), 281.17 (8) (c), 285.27 (2) (bm), 292.31 (1) (d) 1m., 292.74 and 299.15 (2m) of the statutes; relating to: setting standards for certain contaminants, providing information relating to off-site disposal of certain waste, extending the time limit for emergency rule procedures, providing an exemption from emergency rule procedures, granting rule-making authority, and making an appropriation.

There are no Federal or State Regulations to protect our drinking water, groundwater, or surface water from PFAS contamination. The Town of Peshtigo residents were shocked and angered as they learned that there were no rules and no limits on the poison that had contaminated their wells and drinking water. PFAS is the water quality challenge of the 21st Century because it does not break down in the environment and it will take all of the rest of this Century to clean it up. We must start by setting the rules so industry and municipal utilities can begin the process to protect our residents.

We strongly support this bill and thank our Senator Dave Hansen and Senator Miller and Rep. Gruszynski for their sponsorship of it.

COST vs BENEFIT ANALYSIS

- What cost is too high to protect expecting mothers from miscarriages?
- What cost is too high to protect young children from life-long immune deficiencies, learning disabilities, and behavioral problems?
- How much poison should your family be forced to consume so industry can avoid the costs of regulation?
- How much property value loss is acceptable to avoid regulation of PFAS exposure?

WISCONSIN

There are 5.8 Million Stakeholders in Wisconsin on the issue of water quality. Please make sure you do everything you can to protect our health and safety. Please pass legislation to protect our drinking water, our agricultural resources, our food, our environment, and our property values from the scourge of PFAS contamination.