



Municipal Wastewater Biosolids PFAS Strategy

November 2024

Agenda

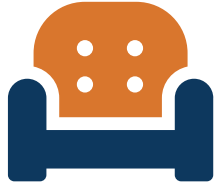
- Welcome and introduction by Assistant Commissioner Dana Vanderbosch
- Two-minute video on what are PFAS
- Background on PFAS in Minnesota and Amara's Law
- Presentation discussing the proposed strategy
- Giving public feedback
- Question and answer time

What are Per – and Polyfluoroalkyl Substances (PFAS)?

- Also known as “forever chemicals”
- Family of human-made chemicals
- Extremely stable and do not break down in the environment.
- Widely used for decades, and commonly found in consumer products.



PFAS are used in many kinds of products



Upholstered
furniture



Ski wax



Paint



Textile furnishings



Menstruation
products



Kids products



Floss



Food packaging



Cookware



Carpet and rugs



Firefighting foam



Fabric treatments



Cleaning products

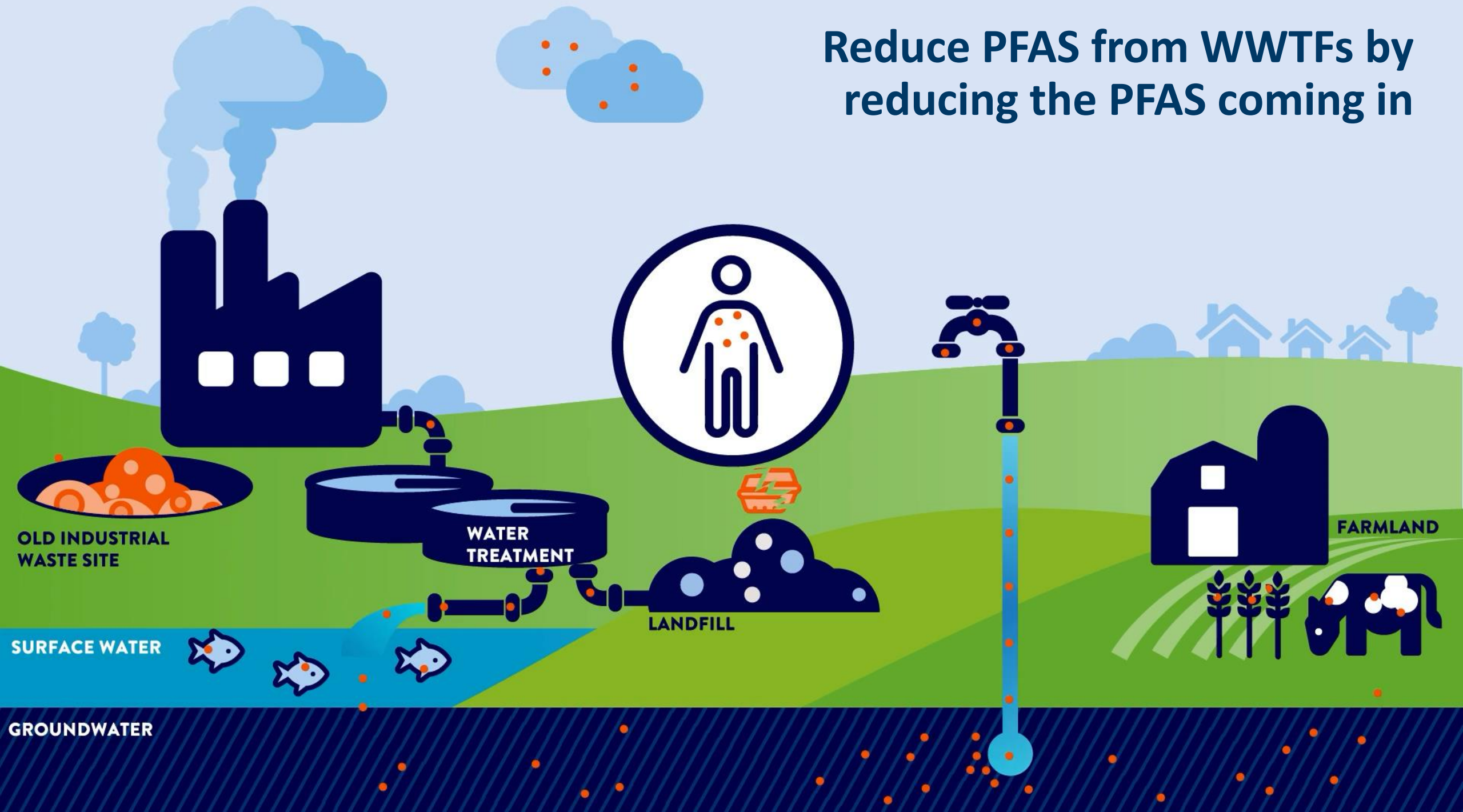


Cosmetics



Many more

Reduce PFAS from WWTFs by reducing the PFAS coming in



What else is Minnesota doing?



Minnesota's PFAS Blueprint supports a holistic and systematic approach to address PFAS.

PFAS response actions

1



Prevent

PFAS pollution
wherever possible

2



Manage

PFAS pollution when
prevention is not
feasible or pollution
has already occurred

3



Clean up

PFAS pollution at
contaminated sites



Minnesota’s PFAS in product prohibitions

Amara’s Law

July 1, 2020	January 1, 2024	January 1, 2025	January 1, 2026	January 1, 2032
Use of PFAS in firefighting foam for testing or training	PFAS in food packaging prohibited PFAS in firefighting foam is prohibited, with exceptions	PFAS is prohibited in 11 product categories	PFAS reporting requirements begin	All other PFAS use in products prohibited, unless determined to be a currently unavoidable use

Background: What are biosolids?

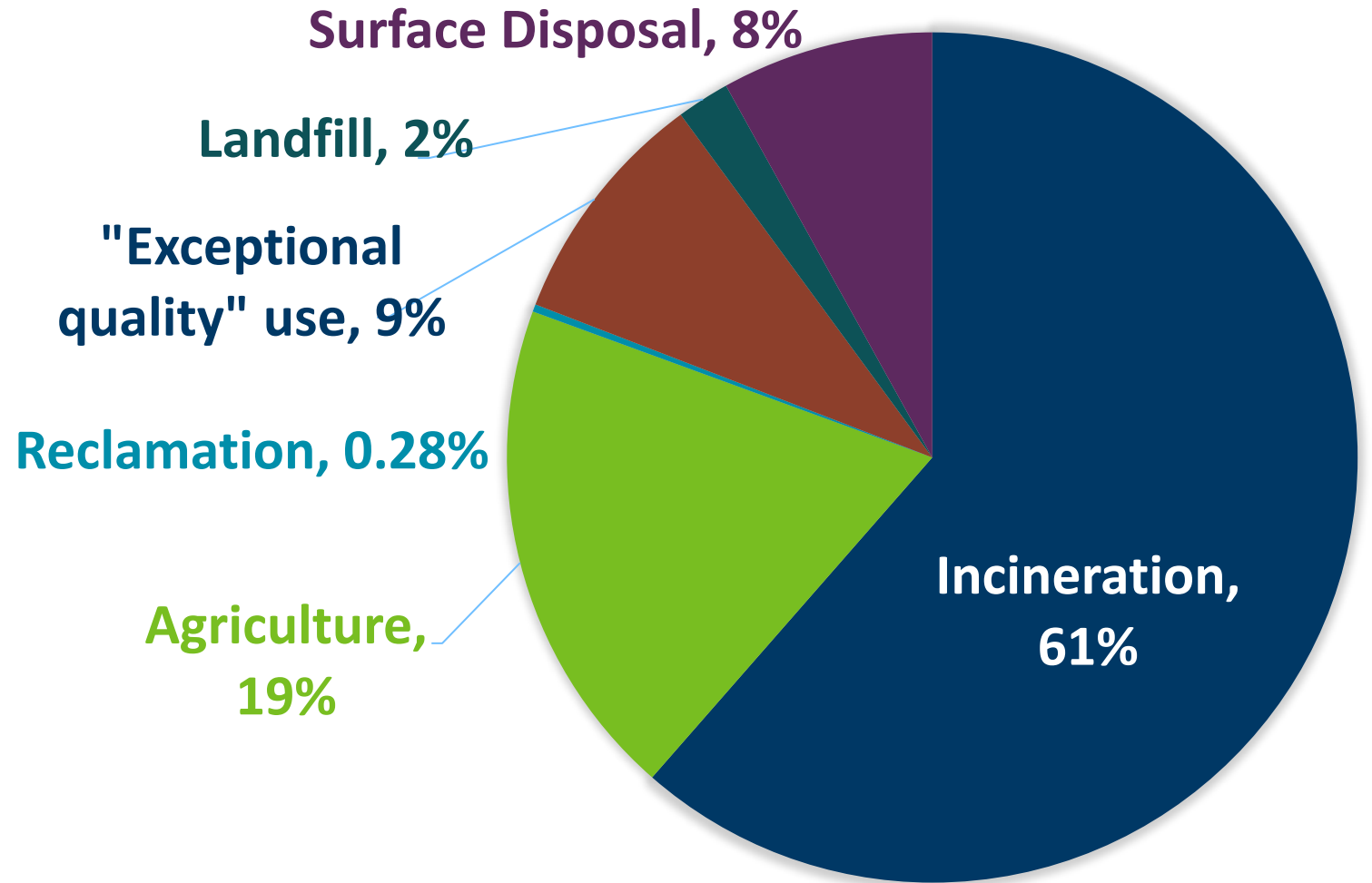
Nutrient-rich organic material from municipal wastewater treatment facilities that farmers can opt to have applied to their fields



Minnesota biosolids use and disposal (2018)

Minnesota
biosolids use and
disposal in 2018

161,300 dry
US tons



Background: PFAS in biosolids

- PFAS in biosolids have the potential to mobilize in the environment
- PFAS in biosolids health risk data are in development
- Fall 2024: Select biosolids PFAS sampling



Background: Existing biosolids land application requirements

- Limits on contaminants, pathogen and vector attraction reduction requirements, and amount applied
- Limits on where it can be applied:
 - Appropriate soil conditions
 - Prohibited near wells, residences, surface waters, karst features, tile inlets, and on steep slopes
- Trained and certified operator
- Exceptional quality biosolids: more testing, pathogen-free, and low odor potential, low metal content

2024 Legislation

- Minnesota Sessions Laws 2024 – Chapter 116, Article 2, Section 27
- Develop a strategy on PFAS in biosolids applied to land by December 31, 2024
- Implement the strategy in permits afterward
- Although not required in statute, the MPCA is seeking feedback on a draft strategy



Proposed biosolids strategy

Starting in Fall 2025:

1. Annual PFAS sampling of biosolids prior to land application
2. Wastewater treatment facility actions, based on biosolid testing results
 - Higher PFAS = more requirements, restrictions, prohibitions
 - Communication with landowner, farmer, and MPCA
 - Incentive to reduce PFAS coming into the system to move into a lower tier/have fewer requirements
3. For exceptional quality (EQ) biosolids: quarterly sampling and PFOA + PFOS must be $\leq 20 \mu\text{g/kg}$

Proposed biosolids strategy

Tier	PFOA or PFOS level measured in biosolids	Wastewater treatment facility requirement
Tier 1	≤ 19 $\mu\text{g/kg}$ / ppb	No requirements
Tier 2	20 – 49 $\mu\text{g/kg}$ / ppb	<p>Prior to application notify farmer and landowner</p> <p>Create and implement a PFAS source reduction pollutant management plan (PMP)</p> <p>Report the land application rate to MPCA</p>
Tier 3	50 – 124 $\mu\text{g/kg}$ / ppb	<p><i>All Tier 2 requirements, plus:</i></p> <p>Prior to application notify MPCA, farmer, and landowner</p> <p>Reduce rate to 1.5 dry tons per acre or provide an alternative risk mitigation strategy</p>
Tier 4	≥ 125 $\mu\text{g/kg}$ / ppb	<p>Land application is not allowed</p> <p>Immediately notify MPCA</p> <p>WWTF must sample its effluent and have it analyzed for PFAS</p> <p>Additional site-specific requirements may be necessary</p>

A close-up photograph of a person's hands typing on a silver laptop keyboard. The laptop is open, and its screen is visible on the left side of the frame. The background is a soft-focus view of green trees and foliage, suggesting an outdoor or brightly lit indoor setting. A dark blue rectangular overlay is positioned in the center of the image, containing the text "Effective public feedback" in white. The overall composition is clean and professional, with a focus on the act of working or communicating.

Effective public feedback

Feedback on the draft strategy

- Additional public feedback not given at the webinar can be submitted through Smart Comment.
- Enter public feedback at the QR code or link below!

<https://mnpca.info/3POBWzK>



Materials posted for feedback

The materials posted for feedback are:

- Draft Strategy
- Information Fact Sheet
- Instructions on how to give feedback
- Contact information for the strategy writer



Tips for effective feedback

- Tell the agency who you are and what your interest is in the strategy
- Offer specific suggestions or concerns of the strategy
- If offering concerns of the strategy, be sure to have details to support your points
- Offer alternatives to items you don't agree with
- Provide your contact information

What do MPCA staff do with my feedback?

- Read all feedback
- Evaluate each concern raised
- All feedback becomes part of the strategy record
- Errors or gaps in the draft are fixed

Key Dates

- Dec 12: Last day to submit public feedback
- Dec 2024: MPCA will consider feedback and finalize the strategy
- Early 2025: Release final strategy
- 2025: Implementation



Questions

Submit feedback here:



Or send to Sherry Bock at sheryl.bock@state.mn.us