



Michigan Biosolids Team



EGLE and Biosolids Engagement



It's everyone together

Michigan Water and Environment Association

MWEA Biosolids Committee/Michigan Biosolids Team:

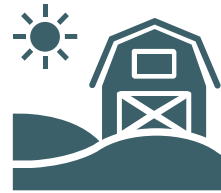
- Includes operators, regulators, land appliers, labs, Michigan Department of Agriculture and Development, Michigan State University Extension, Michigan Farm Bureau and other stakeholders
- Attend Quarterly meetings
- Plan, speak at and attend biosolids Annual conference
- Hosting booths at outreach opportunities like Joint Expo (for operators) and Agro Expo (for farmers)
- Creating fact sheets and infographics

Michigan State University Extension Office



Creation

Creating Fact Sheets and infographics



Education

Working with Michigan Department of Agriculture to create educational series for farmers and other stakeholders



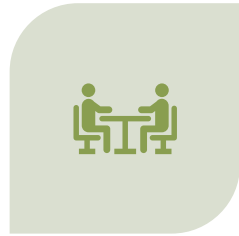
Collaboration

Working in areas that have specific concerns/activism

Additional Collaboration



WORK WITH LOCAL HEALTH DEPARTMENTS IN ADDRESSING CONCERNS, IMPROVING RECORDKEEPING AND ANY OTHER WAY WE CAN HELP



ATTEND REGULAR MEETINGS FOR LOCAL WASTEWATER PARTNERSHIPS (GLWA, OTTAWA CO, ETC)



SPEAK AT MICHIGAN ENVIRONMENTAL COMPLIANCE CONFERENCE (MECC)



PARTICIPATE IN EARTH DAY EVENTS



ATTEND OR HOST TOWNHALLS, LOCAL TOWNSHIP MEETINGS, OR OTHER MUNICIPAL MEETINGS UPON REQUEST FROM THE MUNICIPALITY.

Other Associations and Committees

- In the past, we have presented or held a booth at events hosted by the following organizations:
 - Michigan Rural Water Association
 - Michigan Water and Environment Association Lagoon Committee
 - Michigan Township Association
 - Michigan Water and Environment Association Upper Peninsula Conference

Infographics

ARE BIOSOLIDS REGULATED?

YES!

Biosolids are the most regulated farm additive. Biosolids are only sourced from permitted Clean Water Facilities. Here's how we protect each biosolids application:

Industries
Remove Industrial Hazards = No Sewer Discharge

Residences
Screening (Removes Trash)

Businesses
Microbes - Convert to Biomass

Heat, Limestone and Time = Clean Finished Product

CLEAN WATER FACILITIES
Test for heavy metals, PFAS compounds, pathogens, and nutrient

LAB TESTING!

FARMS
Test soil for fertility
Application is kept away from water/wells and buildings

Farmer determines if biosolids are appropriate for their crop

Farms must not apply near sensitive areas

Application could be liquid or solid

For more information, scan this QR code!

Michigan Biosolids Team

MICHIGAN BIOSOLIDS REPLACED FERTILIZER IN 2024

FACT CHECKED

\$30 MILLION
to area farmers in fertilizer benefits

Greenhouse gas reductions equivalent to a **\$100 MILLION** solar facility*

Up to **\$10,000** in micro-nutrient benefit for an average MI farm

THAT'S **1.25** MACKINAC BRIDGES OUT OF THE LANDFILL

Since 2015, the Michigan Biosolids Program has kept **1.3 MILLION DRY TONS** out of landfills

Scan here for more Biosolids facts

Michigan Biosolids Team

*Based on the Energy Information Administration cost and efficiency estimates for Michigan

PFAS AND BIOSOLIDS

WHAT ARE BIOSOLIDS?

Biosolids are the organic materials that remain after the treatment of sewage sludge at wastewater treatment plants (WWTPs). Sewage sludge refers to the solids that settle out during the wastewater treatment process and are not yet treated to reduce pathogens or contaminants. There are three options for disposal of these waste products: landfilling, incineration and land application.

WHAT ARE PFAS?

PFAS stands for per- and polyfluoroalkyl substances, a large group of over 12,000 different human-made chemicals with properties of being resistant to oil, water and stains. PFAS are commonly used in a variety of products like makeup, food packaging, firefighting foam, non-stick cookware, etc. These compounds do not naturally degrade in the environment and bioaccumulate in plants, water, soil, and animals, including humans. High levels of exposure are associated with several different health conditions.

MICHIGAN'S RESPONSE

Since 2018, Michigan's Department of Environment, Great Lakes, and Energy (EGLE) has monitored WWTPs influent, effluent and biosolids and aimed to reduce or eliminate major sources of PFAS from entering WWTPs (Industrial Pretreatment Programs or IPP). EGLE has also developed an interim strategy that determines appropriate land application rates based on the concentrations of PFOS and PFOA, which are two of the most toxic and bioaccumulative PFAS compounds. In 2024, 89% of biosolids in Michigan were in the category of the lowest PFAS concentration (< 20 µg/kg or ppb). Although EGLE only regulates the concentrations of PFOS and PFOA, they are monitoring 28 different PFAS compounds in biosolid products. For more information on Michigan's response to PFAS in biosolids, scan the QR code below.

CONSIDERATIONS FOR LAND APPLICATION OF BIOSOLIDS

Land application of biosolids can be beneficial to farmland. Biosolids can improve soil organic matter and soil health. Increases in soil organic matter can lead to greater aeration, water infiltration, erosion resistance, and greater microbial diversity. Biosolid land application can also be a cost-effective fertilizer source compared to other commercial products. In 2024, biosolids were applied to 0.38% of Michigan agricultural land. While biosolids are a great option for some farms, there are considerations before applying them to farmland including potential for environmental contamination, odors and challenging neighbor relations. Despite going through several treatment processes to stabilize the materials and kill pathogens, biosolids can still carry detectable levels of synthetic chemicals, metals, microplastics and pharmaceuticals. WWTPs are ineffective at destroying PFAS, so they often remain in biosolids. More research is needed to determine the impact of these remaining contaminants on food safety.

FOR MORE INFORMATION

Contact Faith Cullens-Nobis (cullensf@msu.edu) or Katie King (kingka22@msu.edu)

OR VISIT

<https://www.canr.msu.edu/pfas/>

MICHIGAN STATE UNIVERSITY Extension



Create Accessibility

EGLE



PFAS in biosolids

- [Current interim strategy](#)
- [2018 IPP PFAS Initiative & biosolids field results](#)



Land application information

- [Land application data](#)
- [Land application gallery](#)
- [FAQ: Land application for biosolids](#)



For generators

- [Biosolid annual reports and DMR](#)
- [Residuals Management Program \(RMP\)](#)
- [Technical resources](#)

Contact us

Each county has a specific biosolids coordinator assigned; find your [county biosolids program staff](#).



MWEA

Committee Leadership

Committee Chair	Ben Stephens, Donohue & Associates, Inc.
Committee Vice Chair	Michael Potash, Synagro
Past Chair	Laura Campbell, Michigan Farm Bureau

2026 Meeting Schedule:

- February 26, 2026 @ 10:00am
 - Virtual or in person at MWEA Office in Lansing
- June 4, 2026 @ 10:00am
- September 10, 2026 @ 10:00am
- December 3, 2026 @ 10:00am

Check the MWEA calendar or contact MWEA for additional meeting details.

Committee Resources

[All About Land Application of Biosolids \(fact sheets and more\)](#)

For more information about biosolids land application, laws and rules, links or downloads visit:



EGLE

EGLE

MDARD

Michigan's Biosolids Program

The Michigan Biosolids Program is administered by the Michigan Department of Environment, Great Lakes, and Energy (EGLE). The Michigan Department of Agriculture & Rural Development's (MDARD) role in the Michigan's Biosolids Program is Education and Technical Assistance to those individuals affected by the land application of biosolids. EGLE and MDARD have partnered with Michigan Farm Bureau Michigan State University Extension and the Michigan Water Environment Association to form a Michigan Biosolids Team to provide leadership and promote beneficial uses of Biosolids and to make Michigan a national leader in environmentally sound Biosolids processes and products.

[2024 Agro Expo Demo Plot](#)

[2022 Biosolids Annual Report](#)

[Biosolids Newsletter: May 2024](#)

Biosolids Information

[Biosolids Management Guidelines](#)

[Biosolids Fact Sheet](#)

[Biosolids Fact Supplement 1](#)

[Biosolids Fact Supplement 2](#)

[Biosolids Fact Supplement 3](#)

[Biosolids Fact Supplement 4](#)

[EGLE State Biosolids Contact List](#)

[Demo Plot Results Archive](#)

[Biosolids Newsletter Archive](#)

[Additional State Biosolids Contacts](#)

MSU Biosolids Bulletins

[Applying Biosolids to Land in Michigan](#)



Michigan Department of
Environment, Great Lakes, and Energy

800-662-9278

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