

October 24, 2022

A Resolution Calling on the NYS Legislature and Department of Environmental Conservation to Ban the Use of Sewage Sludge in Compost and as a Soil Amendment or Fertilizer due to PFAS Contamination.

Summary: This resolution calls for New York State to ban the recycling and use of sewage sludge (also known by the PR term “biosolids”¹) as a fertilizer or soil amendment, including the co-processing (composting or anaerobic digestion) of sewage sludge with food waste or yard waste, due to contamination with PFAS and other toxic substances.

WHEREAS, in the process of treating municipal and industrial sewage, wastewater treatment plants produce a solid, semisolid, or slurry residual material that is commonly called sludge (or biosolids), as a by-product of wastewater treatment processes²

WHEREAS, following treatment, the sludge may be dried and disposed of at landfills or applied as a soil amendment or fertilizer to agricultural croplands and landscapes either without further processing alone or in combination with plant, food or yard wastes.³

WHEREAS, sewage sludge is known to contain numerous contaminants:

1. EPA has identified 352 pollutants in sewage sludge including pharmaceuticals, steroids and flame-retardants, but cannot regulate these pollutants in sewage sludge since data as well as risk assessment tools are lacking;⁴ and

John Stauber and Rampton, Sheldon. “The sludge hits the fan” (Chapter 8). Toxic Sludge is Good For You: Lies, Damn Lies, and the Public Relations Industry. Monroe, ME, 1995: Common Courage Press. <https://http://www.ejnet.org/sludge/sludge.html>

² <https://www.britannica.com/technology/wastewater-treatment/Sludge-treatment-and-disposal>

³ <https://www.centerforfoodsafety.org/issues/1050/sewage-sludge/what-is-sewage-sludge>

⁴ U.S. EPA Inspector General. Report: EPA Unable to Assess the Impact of Hundreds of Unregulated Pollutants in Land-Applied Biosolids on Human Health and the Environment. Report #19-P-0002, November 15, 2018

2. Testing of sewage sludge from municipal wastewater treatment plants everywhere tested around the U.S. has detected per and polyfluorinated alkyl substances (PFAS), also known as “forever chemicals”⁵; and
3. Sewage sludge may also be contaminated with heavy metals.⁶

WHEREAS PFAS are called “forever chemicals” because the strength of the carbon-fluorine bond prevents them from breaking down naturally. This class of chemicals includes more than 12,000 different compounds with various chemical properties. PFAS are commonly used in thousands of products, from nonstick cookware to firefighting foam and protective gear, because they have desirable chemical properties that impart oil and water repellency, friction reduction, and temperature resistance. PFAS as a class have a wide variety of distinct chemical properties and toxicities; for example, some PFAS can bioaccumulate and persist in the human body and the environment, while others transform relatively quickly. The PFAS that do transform, however, will become one or more other PFAS because the carbon–fluorine bond they contain does not break naturally. It is for this reason that PFAS are termed “forever chemicals.”⁷

WHEREAS organizations such as the International Agency for Research on Cancer (IARC), the Agency for Toxic Substances and Disease Registry (ATSDR), and the EPA have linked exposure to PFAS (particularly PFOA-perfluorooctanoic

<https://www.epa.gov/office-inspector-general/report-epa-unable-assess-impact-hundreds-unregulated-pollutants-land>

⁵ Arjun K. Venkatsan & Rolf U. Halden. May 15, 2013. National inventory of perfluoroalkyl substances in archived U.S. biosolids from the 2002 EPA National Sewage Sludge Survey. *Journal of Hazardous Materials*. vol. 252 - 253, pp. 413 - 418.
<https://doi.org/10.1016/j.jhazmat.2013.03.016>

⁶ Federal regulations require wastewater treatment plants to periodically test their sewage sludge for 9 metals. Through Freedom of Information Law requests, I (Tracy Frisch) obtained several sets of metal test results for Glens Falls sewage sludge. On January 27, 2021, Murray McBride, PhD, a now emeritus Cornell soils professor whose specialty is metals, stated, "The levels of a number of metals that can be potentially harmful to soils or to crop quality, including copper, zinc, lead and cadmium are all at concentrations much higher in the Glens Falls sludges than in uncontaminated New York soils. The repeated application of these sewage sludges to agricultural fields as fertilizers will cause their concentrations to increase in the topsoils . . ."

⁷ National Academies of Science, Medicine, Engineering. *Guidance on PFAS Exposure, Testing, and Clinical Follow-Up*. Washington, DC, 2022: National Academies Press.
<http://nap.nationalacademies.org/26156>, 1.

acid and PFOS-perfluorooctanesulfonic acid) to multiple cancers, thyroid dysfunction, small changes in birthweight, and high cholesterol.⁸

WHEREAS, in Spring 2022, the state of Maine banned all land application of sewage sludge and other biosolids because of documented PFAS contamination of soils, well water, farm products including milk, grains, and vegetables, farm livestock, and the bodies of farm families as a result of the spreading of sewage sludge on farmland;⁹ and

WHEREAS PFAS “forever chemicals” and other hazardous chemicals in the sewage sludge are known to contaminate the resulting compost¹⁰ or anaerobic digestate; and

WHEREAS PFAS compounds are readily absorbed by plants and they bioaccumulate up the food chain, whether they are in livestock feed, the human food supply or plants or animals eaten by wildlife; and

WHEREAS PFAS compounds leach into groundwater¹¹ and are extremely persistent in soil (and the bodies of people and other animals),

NOW, THEREFORE, in view of the foregoing substantial harmful and long-lasting adverse impacts of the application of sewage sludge in any form on lands and the coincident impacts on air and water resources, **Zero Waste Capital District, Inc.**, a registered non-profit in New York State, hereby resolves as follows:

1. **Zero Waste Capital District, Inc.** supports (1) a ban on the recycling of sewage sludge (AKA biosolids) for use as a fertilizer or soil amendment; (2)

⁸ Ibid.

⁹ Institute for Agriculture and Trade Policy. “Lessons from Maine: Food, Farms and Forever Chemicals — Understanding and Addressing the Harmful Legacy and Ongoing Challenge of PFAS and Agriculture” (Recording of May 18, 2022 webinar).

<https://www.iatp.org/event/maine-food-farms-PFAS>

¹⁰ National Academies of Science, Medicine, Engineering. Guidance on PFAS Exposure, Testing, and Clinical Follow-Up. Washington, DC, 2022: National Academies Press.

<http://nap.nationalacademies.org/26156>

¹¹ “PFAS in Drinking Water - PHDMC.” *PFAS in Drinking Water*, Ohio Department of Health, 3 Dec. 2019,

<https://phdmc.org/program-documents/healthy-lifestyles/gumc/features/pfas/2052-pfas-in-drinking-water/file>

the land application of sewage sludge and fertilizers or compost made with sewage sludge; and (3) a ban on the co-processing of sewage sludge with food waste and/or yard waste in a composting operation or in an anaerobic digester.

2. **Zero Waste Capital District, Inc.** further resolves to advocate for these bans and to educate the public on their necessity to protect the environment, the food supply, and public health.

IN WITNESS WHEREOF, the organization named below acknowledge its approval and support of this Resolution.

Zero Waste Capital District, Inc.

Name: Kurt Krumperman

Title: Public Policy Chair

Date: 10/24/2022

Please send approved resolution to sewagesludgeresolution@gmail.com.