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VIA regulations.gov

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Re: Comments on Notice of Draft Sewage Sludge Risk Assessment for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS), Docket ID No. EPA-HQ-OW-2024-0504

Dear Mr. Tobias and Mr. Nickerson:

The Southern Environmental Law Center and the 89 organizations listed below offer the following comments on the U.S. Environmental Protection Agency's Draft Sewage Sludge Risk Assessment for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS).[1]

AbleDifferently
Alliance of Nurses for Healthy Environments
Amphibian Foundation
Birds Georgia
Black-Sampit Riverkeeper
Cape Fear River Watch
Chesapeake Legal Alliance
Clean Water Action
Coastal Carolina Riverwatch
Coosa Riverkeeper
Dan Riverkeeper
Environment America Research & Policy Center
Alabama Rivers Alliance
Amigos Bravos
Atchafalaya Basinkeeper
Black Warrior Riverkeeper
Blue Water Baltimore
Center for Biological Diversity
Choctawhatchee Riverkeeper
Clean Water for North Carolina
Congaree Riverkeeper
Cowpasture River Preservation Association
Endangered Habitats League
Environment New Jersey

[1] EPA, *Draft Sewage Sludge Risk Assessment for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS)*, 90 Fed. Reg. 3859 (Jan. 15, 2025); EPA, *Two Actions Published by the Environmental Protection Agency with Comment Periods That Close February 24, 2025, and March 17, 2025*; *Notice of Comment Period Extensions*, 90 Fed. Reg. 10078 (Feb. 21, 2025) (extending comment period until April 16, 2025).

Environmental Integrity Project
Freshwater Future
Friends of the Rivers of Virginia
Great Egg Harbor Watershed Association
Hoosier Environmental Council
League of Conservation Voters
Learning Disabilities Association of America
Learning Disabilities Association of California
Learning Disabilities Association of Georgia
Learning Disabilities Association of Iowa
Learning Disabilities Association of Maryland
Learning Disabilities Association of Minnesota
Learning Disabilities Association of New Jersey
Learning Disabilities Association of North Carolina
Learning Disabilities Association of Oklahoma
Learning Disabilities Association of Texas
Learning Disabilities Association of Virginia
Lower Susquehanna Riverkeeper Association
Mobile Baykeeper
NAACP North Carolina State Conference
Nature Forward
North American Climate, Conservation and Environment (NACCE)
Ogeechee Riverkeeper
River Guardian Foundation
Satilla Riverkeeper
Snake River Waterkeeper
Tennessee Citizens for Wilderness Planning
The Clinch Coalition
The Watershed Center Grand Traverse Bay
TN Environmental Council
Virginia Conservation Network
Waterkeepers Chesapeake
Winyah Rivers Alliance
Environmental Working Group
Friends of the Reedy River
Georgia Interfaith Power and Light
Haw River Assembly
Kentucky Resources Council, Inc.
Learning Disabilities Association of Alabama
Learning Disabilities Association of Arkansas
Learning Disabilities Association of Delaware
Learning Disabilities Association of Illinois
Learning Disabilities Association of Maine
Learning Disabilities Association of Michigan
Learning Disabilities Association of Nebraska
Learning Disabilities Association of New York State
Learning Disabilities Association of Ohio
Learning Disabilities Association of South Carolina
Learning Disabilities Association of Utah
Learning Disabilities Association of Wisconsin
Mill Creek Alliance
MountainTrue
National Wildlife Federation
NC League of Conservation Voters
North Carolina Conservation Network
PennEnvironment
Safer States
Shoals Environmental Alliance
SouthWings
Tennessee Riverkeeper
The People's Justice Council
Grand Traverse Bay WATERKEEPER
Toxic Free North Carolina
Virginia League of Conservation Voters
West Virginia Rivers Coalition

I. Introduction

Throughout the country, farmers spread biosolids, or sludge, on their crops and pastures used for livestock. For decades, farmers were told by the corporations that market this sludge that it is a safe and effective fertilizer. But as demonstrated in the U.S. Environmental Protection Agency's ("EPA's") risk assessment and at farms around the country, much of this sludge is contaminated and is harming our communities and the families who live on farms and ranches.

The PFAS pollution in sludge comes from wastewater treatment plants. Across the country, thousands of industries send harmful chemical waste to municipal wastewater plants, and that waste often contains chemicals like per- and polyfluoroalkyl substances ("PFAS"), also known as forever chemicals. Because wastewater plants are not equipped to remove PFAS, the chemicals pass straight through—from the industries and into the wastewater plants' discharges. The pollution also makes it into the sludge that is spread onto farms throughout the nation.[2]

This has serious consequences for our country's farming families, our communities' drinking water sources, and our food supplies. For instance, PFAS-polluted milk has been found in dozens of dairy farms in Maine, forcing several to close.[3] Samples reached over 8,000 times health-based standards for the chemicals.[4] In Texas, farmers and ranchers are rightfully outraged after Synagro, a company that supplies sludge, provided them with PFAS-polluted sludge to put on their land.[5] There, families have struggled with health issues, dying farm animals and household pets, and the near-total destruction of their property values.[6] Johnson County, Texas has declared a state of emergency over farmland contaminated with PFAS.[7] Additionally, across the Southeast and elsewhere, PFAS-laden sludge has polluted groundwater wells and rivers that are used for drinking water, adding to the devastation posed by toxic chemical contamination.

As EPA determined in its risk assessment, the families who live on farms and ranches are the most threatened by PFAS-contaminated sludge because they are the people who rely most heavily on the lands where it has been applied. Many of these families unknowingly spread contaminated sludge on their lands because they were told that it was a safe and effective way to fertilize their farms. Their children and family members are the ones eating the vegetables, beef, fish, fruit, milk, and eggs from their farms. Their families are the ones that have the most to lose.

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[2] *See* Johnathan Sheets and Maddison Ledoux, *Addressing the Impacts of PFAS in Biosolids*, Wastewater Digest (Sept. 10, 2021), https://perma.cc/7TJK-4UDT; EPA, *PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024* (Oct. 2021), https://perma.cc/FXQ9-6LBR, at 16.

[3] Susan Cosier, *America's Dairyland May Have a PFAS Problem*, Nat. Res. Def. Council (Oct. 11, 2019), https://perma.cc/4V2C-ZZQ4; Kris Maher, *Maine Farmers Dump Milk, Lose Crops as Forever Chemicals Taint Soil*, Wall St. J. (July 4, 2022), https://perma.cc/3EJ4-V8M9; Kevin Miller, *'Complete Crisis' as PFAS Discovery Upends Life and Livelihood of Young Maine Farming Family*, Maine Public (Feb. 7, 2022), https://perma.cc/39GW-CFFC.

[4] Me. Dep't Agriculture, Conservation, & Forestry, *DACF Retail Milk Testing for PFAS Confirms Maine Milk Supply is Safe; High PFOS Level Detected on One Central Maine Farm* (July 24, 2020), https://perma.cc/2M6Y-JAJ3; EPA, Per- and Polyfluoroalkyl Substances (PFAS) Final PFAS National Primary Drinking Water Regulation (Feb. 19, 2025), https://perma.cc/L4W4-FGSE.

[5] First Amended Complaint and Election of July Trial, *James Farmer et al. v. Synagro*, C-03-CV-24-000598 (Baltimore Cty. Circuit, Feb. 27, 2024), https://perma.cc/WUY9-UFXQ, at 2-3.

[6] *Id.*

[7] Hiroko Tabuchi, *Texas County Declares an Emergency Over Toxic Fertilizer*, The New York Times (Feb. 14, 2025), https://www.nytimes.com/2025/02/14/climate/forever-chemicals-sewage-sludge-fertilizer-texas.html.

Despite this, the companies and utilities that are responsible for this pollution have so far showed little sympathy. As reported by the New York Times, Synagro, a company that manages more than 6.5 million tons of sludge each year, "is a part of a major effort to lobby Congress to ***limit the ability of farmers and others to sue*** to clean up fields polluted by the fertilizer."[8] Wastewater plants have similarly lobbied Congress to avoid liability from PFAS chemicals,[9] drafted state-level PFAS rules that require no reductions of PFAS,[10] and pushed back on EPA's attempts to ask wastewater plants to identify industrial PFAS sources.[11]

The harm that PFAS-polluted sludge causes farming families is not only unjust—it is unnecessary. Industries that use and release PFAS can and should be required to remove the chemicals before their waste ever gets to a wastewater plant, so that industries' PFAS do not end up in the sludge in the first place. Cities and towns that operate wastewater plants have the legal authority and obligation to require their industries to do just this—to treat their own industrial waste for PFAS. If this happened, we would not see the levels of PFAS that are ending up in the sludge[12]—sludge that is spread on millions of acres of farmland and harming communities throughout the country.

II. PFAS-laden sludge threatens farming families and other communities.

Nearly half of the sludge produced in the United States is disposed of by being spread onto fields and farmland.[13] Across the country, as many as 70 million cropland acres use sludge from wastewater plants as fertilizer.[14] This is deeply troubling because once PFAS-polluted sludge is sprayed onto such fields, the chemicals do not stay put. They flow into surface water and leak into groundwater that supply drinking water sources, and they contaminate food supplies.[15] And sludge can contain extremely high

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[8] Hiroko Tabuchi, *Their Fertilizer Poisons Farmland. Now, They Want Protection from Lawsuits*, The New York Times (Dec. 6, 2024), https://www.nytimes.com/2024/12/06/climate/sludge-fertilizer-synagro-lobbying.html (emphasis added).

[9] NACWA, *Coordinated Sector Letter Emphasizing Need for CERCLA Exemption* (Apr. 28, 2022), https://perma.cc/5KKW-LYJL, at 1.

[10] Trista Talton, *Utility industry has heavy hand in draft PFAS monitoring rule* (Mar. 17, 2025), https://perma.cc/W6L3-YTCN.

[11] NACWA, *NACWA Comments on the U.S. Environmental Protection Agency's Region 1 Draft National Pollutant Discharge Elimination System (NPDES) General Permit for Medium Wastewater Treatment Facilities in Massachusetts (MAG590000)* (Apr. 26, 2022), https://perma.cc/54SP-VJVG, at 2-3.

[12] Dorin Bogdan, *Evaluation of PFAS in Influent, Effluent, and Residuals of Wastewater Treatment Plants (WWTPs) in Michigan* (Apr. 2021), https://perma.cc/UC2J-KTKR, at 11-17.

[13] Tom Perkins, *'Forever Chemicals' May Have Polluted 20m Acres of US Cropland, Study Says*, The Guardian (May 8, 2022), https://perma.cc/K5H5-W6G4; *see also* EPA, *Basic Information About Sewage Sludge and Biosolids* (Mar. 12, 2025), https://perma.cc/P6E5-46XG.

[14] Jared Hayes, *EWG: 'Forever Chemicals' May Taint Nearly 70 Million Cropland Acres*, Env't. Working Group (Jan. 14, 2025), https://perma.cc/H7P9-G32A.

[15] *See* Andrew B. Lindstrom et al., *Application of WWTP Biosolids and Resulting Perfluorinated Compound Contamination of Surface and Well Water in Decatur, Alabama, USA*, 45 Env't. Sci. & Tech. 8015 (Apr. 22, 2011), at 8016; Jennifer G. Sepulvado et al., *Occurrence and Fate of Perfluorochemicals in Soil Following the Land Application of Municipal Biosolids*, 45 Env't. Sci. & Tech. (Mar. 29, 2011), at 8106; Janine Kowalczyk et al., *Transfer of Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) from*

levels of PFAS. Sludge produced at wastewater plants in Michigan, for example, have contained concentrations of PFOS (only one type of PFAS) reaching as high as 8,600,000 parts per trillion ("ppt"),[16] 8,600 times higher than the level EPA considered in its risk calculation. Such PFAS-polluted sludge threatens farming families and other communities across the nation.

A. Contaminated sludge threatens families who live on farms throughout the country.

As EPA determined in its risk assessment, families who live on farms and ranches where PFAS-polluted sludge has been sprayed are most threatened. They are the ones who most often eat the meat, fish, vegetables, and other food that comes from their farms, and they have been doing so for years. In this risk assessment, EPA made the devastating conclusion that eating food grown on these farms—something that every farming family should be able to do—significantly increases their and their children's risk of cancer and other negative health effects, including among other things, effects to the immune and cardiovascular systems, development, and liver.

First, EPA's assessment shows that families who live on or near "crop farms" (farms that are used to grow fruits and vegetables) are exposed to unacceptable levels of PFAS through the food that they eat from the farm, nearby fish that they catch and eat, as well as the water they drink. For instance:

- Nearly six children out of 10,000 who eat 1-2 meals of fish per week on these farms could get cancer later in life from those meals alone.[17] Their risk of developing non-cancer health effects from these meals is also 25 times higher than what is considered safe.[18]

- More than one out of 10,000 children who eats .58-1.4 g/kg of "protected vegetables," such as pumpkin, corn, peas, and beans on these farms could get cancer later in life from those meals alone.[19]

- Nearly five adults out of 10,000 who eat 1-2 servings of fish per week on these farms could get cancer from those meals alone.[20] Their risk of developing non-

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Contaminated Feed into Milk and Meat of Sheep: Pilot Study, 63 Archives Env't. Contamination & Toxicology 288 (Mar. 28, 2012), at 288-89; Holly Lee et al., *Fate of Polyfluoroalkyl Phosphate Diesters and Their Metabolites in Biosolids-Applied Soil: Biodegradation and Plant Uptake in Greenhouse and Field Experiments* 48 Env't. Sci. & Tech. 340 (Dec. 6, 2013), at 341.

[16] Bogdan, *supra* note 12, at 13 (reported in µg/Kg, translated to ppt).

[17] EPA, *Draft Sewage Sludge Risk Assessment for Perflourooctanoic Acid (PFOA) CASRN 1763-23-1* (Jan. 2025) (hereinafter *Risk Assessment*), https://perma.cc/YWE2-CJRB, at 103 (Table 34).

[18] *Risk Assessment*, *supra* note 17, at 103-04 (Table 34 & 35).

[19] *Id.* at 103 (Table 34).

[20] *Id.*

cancer health effects from these meals is also 21 times higher than what is considered safe.[21]

- Over four adults out of 10,000 could get cancer from drinking water sourced from surface water on or near their polluted farmland.[22]

- Over four children out of 10,000 could get cancer later in life from drinking water sourced from surface water on or near their family's polluted farmland.[23]

Families who live on or near "pasture farms" (farms that raise cows and chickens and crops used for livestock) are also exposed to harmful levels of PFAS when they rely on their land for their food and water. Families can be exposed by eating any of the beef or eggs from their farm, drinking milk from their cows, or eating fish caught on their land. For instance:

- Two to three children out of 10,000 who eat a few ounces of beef each day could get cancer later in life from those meals alone.[24]

- Two adults out of 10,000 who eat one serving of beef each day could get cancer from those meals alone.[25]

- More than six children out of 10,000 who eat one egg per day could get cancer later in life from those meals alone.[26]

- More than six adults out of 10,000 who eat one egg per day could get cancer from those meals alone.[27]

- More than two adults out of 1,000 who drink four cups of milk each day could get cancer from that alone.[28] Their risk of developing non-cancer health effects is also 18 times higher just from that milk than what is considered safe.[29]

- Almost four children out of 1,000 who drink 1-2 glasses of milk per day could get cancer later in life from drinking that milk alone.[30] Their risk of developing non-cancer health effects is also 34 times higher just from that milk than what is considered safe.[31] EPA emphasized that children that live on dairy farms likely

[21] *Risk Assessment*, *supra* note 17, at 103-04 (Table 34 & 35).
[22] *Id.* at 103 (Table 34).
[23] *Id.*
[24] *Id.* at 105 (Table 36).
[25] *Id.*
[26] *Id.*
[27] *Id.*
[28] *Id.*
[29] *Id.*
[30] *Id.* at 105 (Table 36).
[31] *Id.*

drink far more milk from the farms, and therefore, their risk of cancer and non-cancer health effects are far higher than estimated.[32]

- More than five adults out of 10,000 could get cancer from drinking water sourced from surface water on or near their polluted farmland.[33]

- Five to six children out of 10,000 could get cancer later in life from drinking water sourced from surface water on or near their family's polluted farmland.[34]

- Adults who eat 1-2 servings of fish per week on these farms face a risk of developing non-cancer health effects that is 39 times higher than what is considered safe.[35]

- Children who eat 1-2 meals of fish per week on these farms face a risk of developing non-cancer health effects that is 45 times higher than what is considered safe.[36]

While these numbers are devastating, the children and adults on both types of farms are far more likely to suffer from harmful health effects than these numbers suggest. As discussed in Section III of this letter, EPA's risk assessment *drastically* underestimated the levels of PFAS that these families are exposed to and consequently the risk they face. It is likely that families that live on these farms are actually dozens of times (sometimes, hundreds of times) more likely to have both cancer and non-cancer health effects.

B. Contaminated sludge threatens drinking water and food supplies for other communities.

Although EPA did not evaluate harm to the general population in the risk assessment, history has shown that PFAS-polluted sludge contaminates other communities' drinking water and food supplies.

Because PFAS do not break down in the environment, PFAS readily reach rivers near sites where sludge has been sprayed. One prominent example of this arises from rural northwest Georgia. There, the city of Trion operates a wastewater plant that accepts industrial waste from a textile manufacturer: Mount Vernon Mills.[37] For years, Mount Vernon released PFAS into Trion's wastewater plant—reported at concentrations as high

[32] *Risk Assessment*, *supra* note 17, at 72-73.
[33] *Id.* at 105 (Table 36).
[34] *Id.*
[35] *Id.* at 105-06 (Table 37).
[36] *Id.* at 105-06 (Table 37).
[37] *See* Ga. Env't Prot. Div., *NPDES Permit No. GA0025607 Trion WPCP* (2019), https://perma.cc/WFV3-75BR; Town of Trion, *NPDES FORM 2A Application Overview* (2018), https://perma.cc/55N5-3R6M, at 18; *Ga. Env't Prot. Div., Consent Order EPD-WP-8894* (Apr. 13, 2020), https://perma.cc/XU6T-LVHC, at 1.

as 1,549 ppt.[38] Trion's wastewater plant did not have the technology to remove the toxic chemicals from the wastewater,[39] and as a result, PFAS ended up in the utility's discharge and sludge. EPA-collected data on Trion's sludge confirmed PFOA and PFOS at concentrations as high as 4,300 ppt and 250,000 ppt, respectively.[40] Later sampling confirmed total PFAS at concentrations as high as 1,641,470 ppt.[41] Unfortunately, that pollution spread to a nearby creek that serves as the drinking water supply for the city of Summerville, Georgia.[42] Prior to a settlement agreement that required Trion to control its PFAS pollution,[43] sampling of Summerville's finished drinking water showed PFOA and PFOS in combined concentrations exceeding 90 ppt[44]—magnitudes higher than what EPA considers safe.[45] The pollution did not stop in Summerville, however, but rather crossed state borders into the drinking water supplies for the cities of Centre and Gadsden, Alabama.[46]

PFAS-polluted sludge has similarly contaminated the drinking water in and around Dalton, Georgia. There, nearly 90 percent of the wastewater sent to the city's wastewater plant, Dalton Utilities, is made up of industrial wastewater, primarily from carpet manufacturers.[47] For decades, Dalton Utilities sprayed its sludge near the Conasauga River, upstream of the Oostanaula River, the drinking water supply for the city of Rome, Georgia.[48] Sampling collected in surface waters downstream of Dalton's sludge-application sites has shown PFAS contamination above 30,000 ppt.[49] As a result of this pollution, the city of Rome has had to spend millions of dollars to install a granular activated carbon filtration system.[50]

Drinking water contamination caused by PFAS-laden sludge is not unique to Georgia. In North Carolina, the city of Burlington sprays millions of gallons of sludge on

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[38] *See Enthalpy Analytical, LLC – Ultratrace, Town of Trion WWTP: Analytical Report 0820-703* (Aug. 24, 2020), https://perma.cc/Q8DV-B9H7, at 6.
[39] *See Trion WWTP Application*, *supra* note 37, at 6.
[40] *See Trion Consent Order*, *supra* note 37, at 4 (reported in ng/kg).
[41] *Enthalpy Analytical, LLC – Utratrace, Town of Trion: Analytical Report 1020-725* (Oct. 29, 2020), https://perma.cc/VQW6-B55F, at 7 (reported in ng/g).
[42] *See Trion Consent Order*, *supra* note 40, at 4–5.
[43] *See* Dennis Pillion, *Georgia Textile Mill Pledges to Stop Discharging PFAS Chemicals into Weiss Lake*, AL.COM (May 13, 2023), https://perma.cc/XM3H-53MK.
[44] *Trion Consent Order*, *supra* note 40, at 4.
[45] EPA, *PFAS National Primary Drinking Water Regulation*, 89 Fed. Reg. 32532 (Apr. 26, 2024) (setting drinking water standards for PFOA and PFOS as well as maximum contaminant level goals for both chemicals at 0 ppt).
[46] *See* Nathan Barlet, LSASD Project ID: 19-0253, Final Report: Phase 2: Priorization of PFAS Contributions to Weiss Lake (Sept. 10, 2019), https://perma.cc/8U2D-BVAV, at 17, 26 (figure 9).
[47] *Johnson v. 3M*, 563 F. Supp. 3d 1253, 1273 (N.D. Ga. 2021), *aff'd sub nom. Johnson v. 3M Co.*, 55 F.4th 1304 (11th Cir. 2022).
[48] *Id.* at 1274.
[49] *See* Drew Kann, *Rome is Grappling with Toxic 'Forever Chemicals' Fouling Waterways*, The Atlanta-J. Constitution (Oct. 14, 2022), https://www.ajc.com/news/rome-is-grappling-with-toxic-forever-chemicals-fouling-waterways/PQ3OZY6W4ZHVJJKENNQEAUGHZ4/.
[50] City of Rome, *A Rome Water & Sewer Division EPA Update Brief (PFOA/PFOS)* (June 16, 2022), https://perma.cc/UHC9-Z2R7.

fields in Alamance, Caswell, Chatham, and Orange Counties each year.[51] The PFAS in Burlington's sludge has been documented at levels as high as 11,953 ppt.[52] Sampling downstream of Burlington's sludge-application sites shows that PFAS from the city's sludge flows into the creeks, streams, and reservoirs nearby, including the drinking water supplies for Chapel Hill and Pittsboro, North Carolina.[53]

PFAS-polluted sludge also contaminates private drinking water wells because the chemicals leak into groundwater supplies.[54] In Decatur, Alabama, private wells near where Decatur Utilities sprayed its sludge were contaminated with PFAS, with some wells containing PFOA and PFOS as high as 61 ppt and 67 ppt, respectively.[55]

PFAS-contaminated sludge also threatens food supplies for communities throughout the country. For example, farms in Maine have discovered that their crops contain high levels of PFAS as a result of PFAS-tainted sludge being applied as fertilizers for decades.[56] Similarly, dairy farmers in Maine have had to dump thousands of gallons of milk (and others have had to close their operations) due to PFAS contamination that resulted from the land-application of sludge onto fields that their cows grazed upon.[57] In Michigan, at least one cattle farm has been ordered to stop selling its beef because elevated levels of PFOS were detected in the cuts of meat sold from the farm.[58] There, once again, the cattle had likely been poisoned by consuming feed polluted by PFAS-contaminated sludge.[59]

III. EPA's assessment recklessly underestimates the harm caused by PFAS-polluted sludge, yet still determines that the sludge is a serious threat to farming families.

EPA's risk assessment fails to capture many of the risks associated with PFAS-laden sludge. Nevertheless, the risk assessment still concludes that exposure to sludge "exceed[s] the agency's acceptable human health risk thresholds."[60] EPA should address

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[51] *See* City of Burlington, *2018 Annual Report Permit No. WQ0000520* (Feb. 4, 2019), https://perma.cc/87TU-DRSN, at 1.
[52] Detlef Knappe, Presentation, *Perfluorinated Compounds in Treated Wastewater and Biosolids from Burlington* (2013), https://perma.cc/5PMD-CC49.
[53] Southern Environmental Law Center, *Notice of Intent to Sue the City of Burlington for Violations of the Clean Water Act and the Resource Conservation and Recovery Act* (Nov. 7, 2019), https://perma.cc/QR5F-8PXV, at 15-19.
[54] *See* Peter B. McMahon, et al., *Perfluoroalkyl and Polyfluoroalkyl Substances in Groundwater Used as a Source of Drinking Water in the Eastern United States*, 56 Env't Sci. Tech. 2278, 2285 (2022), https://pubs.acs.org/doi/10.1021/acs.est.1c04795.
[55] *See, e.g.*, EPA, *Perfluorochemical (PFC) Contamination of Biosolids Near Decatur, Alabama* (Dec. 2009), https://perma.cc/5HGH-LTK9, at 3 (document reporting concentrations in parts per billion or "ppb").
[56] Tom Perkins, *'I Don't Know How We'll Survive': The Farmers Facing Ruin in America's 'Forever Chemicals' Crisis*, The Guardian (Mar. 22, 2022), https://perma.cc/WY3F-WHDL.
[57] Cosier, *supra* note 3; Maher, *supra* note 3; Miller, *supra* note 3.
[58] Garret Ellison, *Advisory Warns of PFAS in Beef from Michigan Cattle Farm*, MLive (Jan. 28, 2022), https://perma.cc/2PZN-JXWT.
[59] *Id.*
[60] *Risk Assessment*, *supra* note 17, at v.

its deficiencies to more accurately document the risk to farming families. Perhaps more importantly, given the conclusions in this assessment, EPA should also immediately direct efforts toward keeping PFAS out of sludge in the first place. As discussed later in these comments, EPA can do so by urging states and municipalities to use the Clean Water Act pretreatment program to require industrial sources to treat their own PFAS pollution before their waste ever reaches a wastewater plant.

First, EPA underestimates the risks of PFAS-polluted sludge by assuming that only 1 part per billion ("ppb") of PFOA and PFOS is in the sludge, when in fact the agency admits that the available data shows that "***nearly all biosolids have higher concentrations***."[61] The average of PFOS—a single PFAS compound—in Maine's sludge is between 16 ppb and 27 ppb.[62] The average PFOA level is between 5.3 ppb and 9.4 ppb.[63] Sampling from Michigan and California similarly show that PFAS levels in sludge is far higher than 1 ppb.[64] And a study conducted on sewage sludge from nearly one hundred wastewater treatment plants throughout the country determined that average levels of PFAS in sludge may even be much higher (as high as around 403 ppb for PFOS and around 34 ppb for PFOA).[65] Therefore, the actual risk of PFAS-contaminated sludge to farming families could be dozens of times, if not hundreds of times, higher than what is represented in EPA's risk assessment. For instance:

- If PFOA levels are 9.4 ppb (as witnessed in Maine), then:
    - More than 54 children out of 10,000 who eat 1-2 meals of fish per week on crop farms could get cancer later in life from those meals alone.[66]
    - More than 59 adults out of 10,000 who eat one egg per day on a pasture farm could get cancer from those meals alone.[67]
    - Nearly 20 adults out of 1,000 who drink four cups of milk each day on a pasture farm could get cancer from that alone.[68]
    - More than 36 children out of 1,000 who drink 1-2 glasses of milk on a pasture farm could get cancer later in life from drinking that milk alone.[69] Their risk of

[61] *Risk Assessment*, *supra* note 17, at 113 (emphasis added).
[62] *Id.*
[63] *Id.*
[64] *Id.*
[65] *See* Arjun K. Venkatesan, et al., *National inventory of perfluoroalkyl substances in archived U.S. biosolids from the 2001 EPA National Sewage Sludge Survey*, 252 J. of Hazardous Materials 413–418 (May 15, 2013), https://www.sciencedirect.com/science/article/abs/pii/S0304389413001921?via%3Dihub.
[66] *Risk Assessment*, *supra* note 17, at 103 (Table 34) (multiplying the cancer risk level by 9.4).
[67] *Id.* at 105 (Table 36) (multiplying the cancer risk level by 9.4).
[68] *Id.* (multiplying the cancer risk level by 9.4).
[69] *Id.* (multiplying the cancer risk level by 9.4).

developing non-cancer health effects is also more than 319 times higher just from that milk than what is considered safe.[70]

- More than 50 adults out of 10,000 could get cancer from drinking water sourced from surface water on or near their polluted pasture farmland.[71]

- More than 52 children out of 10,000 could get cancer from drinking water sourced from surface water on or near their polluted pasture farmland.[72]

- If PFOS levels are 27 ppb (as witnessed in Maine), then:

  - Children who eat 1-2 meals of fish per week on pasture farms have a risk of developing non-cancer health effects that is 1,215 times higher than what is considered safe.[73]

  - Adults who eat 1-2 servings of fish per week on pasture farms have a risk of developing non-cancer health effects that is 1,053 times higher than what is considered safe.[74]

EPA further states that "highly impacted biosolids can exceed *10 times* the average concentrations" found in Maine and elsewhere.[75]

- If the sludge is *highly impacted* and PFOA levels exceed 94 ppb (as suggested by EPA's risk assessment), then:

  - More than 545 children out of 10,000 who eat 1-2 meals of fish per week on crop farms could get cancer later in life from those meals alone.[76]

  - More than 592 adults out of 10,000 who eat one egg per day on a pasture farm could get cancer from those meals alone.[77]

  - More than 197 adults out of 1,000 who drink four cups of milk each day from a pasture farm could get cancer from that alone.[78]

  - More than 366 children out of 1,000 who drink 1-2 glasses of milk from a pasture farm could get cancer later in life from drinking that milk alone.[79]

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[70] *Risk Assessment*, *supra* note 17, at 105 (Table 36) (multiplying the hazard quotient by 9.4).
[71] *Id.* (multiplying the cancer risk level by 9.4).
[72] *Id.* at 105 (multiplying the cancer risk level by 9.4).
[73] *Id.* at 105-06 (Table 37) (multiplying the hazard quotient by 27).
[74] *Id.* (multiplying the hazard quotient by 27).
[75] *Id.* at 113 (emphasis added).
[76] *Id.* at 103 (Table 34) (multiplying the cancer risk level by 94).
[77] *Id.* at 105 (Table 36) (multiplying the cancer risk level by 94).
[78] *Id.* (multiplying the cancer risk level by 94).
[79] *Id.* (multiplying the cancer risk level by 94).

- More than 507 adults out of 10,000 could get cancer from drinking water sourced from surface water on or near their polluted pasture farmland.[80]

- More than 526 children out of 10,000 could get cancer from drinking water sourced from surface water on or near their polluted pasture farmland.[81]

- If the sludge is *highly impacted* and PFOS levels exceed 270 ppb (as suggested by EPA's risk assessment), then:

  - Children who eat 1-2 meals of fish per week on pasture farms have a risk of developing non-cancer health effects that is at least 12,150 times higher than what is considered safe.[82]

  - Adults who eat 1-2 servings of fish per week on pasture farms have a risk of developing non-cancer health effects that is at least 10,530 times higher than what is considered safe.[83]

EPA's assessment must therefore be revised. It should account for the actual level of PFAS in the sludge—not a manufactured number that does not align with reality.

Even more, EPA limits its assessment to only two PFAS compounds: PFOA and PFOS, when nearly 15,000 PFAS chemicals plague our environment, surface water, and groundwater.[84] As EPA acknowledges, many other types of PFAS are present in sludge in part because industry has begun to use shorter-chain compounds.[85] Recent literature confirms that other PFAS including perfluoroundecanoic acid ("PFUnA"), perfluorodecanoic acid ("PFDA"), and perfluorohexanoic acid ("PFHxA") "significantly contribute" to PFAS concentrations in sludge.[86] Yet the risk assessment fails to consider the harm posed by these and other PFAS chemicals, including precursors that could transform to PFOA and PFOS.[87] This oversight leads to a vast underestimation of risk, as shorter-chain PFAS harm human health in the same way that PFOA and PFOS do.[88] EPA should expand this assessment to at least include other PFAS with completed toxicity assessments, or for which the scientific literature exists to support toxicity.

Next, EPA's assessment greatly underestimates threats because it considers only one exposure pathway at a time—meaning that EPA did not consider the likely scenario where families consumed more than one type of contaminated food and/or water from their farms. The risk assessment therefore assumes that family members drink polluted water from their farm, but they purchase all their milk, fish, eggs, meat, fruit, and vegetables from another source that is completely uncontaminated. Or that they fish from a pond on their farm, but they do not eat any other food or drink any water that comes from their land. As EPA itself admits, this is extremely unrealistic—farmers and ranchers often use their land for multiple sources of food and/or water. For instance, one

[80] *Risk Assessment*, *supra* note 17, at 105 (Table 36) (multiplying the cancer risk level by 94).
[81] *Id.* (multiplying the cancer risk level by 94).
[82] *Id.* at 105-06 (Table 37) (multiplying the hazard quotient by 270).
[83] *Id.* (multiplying the hazard quotient by 270).

of the families that have sued Synagro for supplying it with PFAS-polluted sludge used their land for "raising cattle, freshwater fish, and game birds," for a "vegetable garden," and for drinking water and cooking.[89] EPA's assessment should assume that families who rely on PFAS-polluted lands realistically use their farms for more than one source of food and/or water.

EPA's assessment further assumes that family members will only live off polluted land for ten years and that, outside of a person's exposure to that polluted land for those ten years**, they are not being exposed to PFAS *at all.*** This means that "60 of their 70 years of life are assumed to have zero PFOA and PFOS exposure from any source."[90] This is near impossible. First, most families living off polluted land are not moving every ten years, and they will be highly exposed for much or all of their lifetimes. Second, even if they only live on polluted farmland for ten years, they will continue to be exposed to PFAS via other sources. PFAS are present in up to 10 percent of all public drinking water systems; the chemicals are in foods for the general population, consumer products, household dust, human breastmilk, etc.[91] It is almost certain that any individual will be exposed to some level of PFAS even if they only live on polluted farmlands for ten years. This is yet another reason that EPA's assessment greatly underestimates the risk to farming families and others who rely on land polluted by PFAS-laden sludge. This flaw must be corrected.

Next, EPA's assessment does not consider the combined risk of PFOA and PFOS, much less the risk associated with the presence of these two *and* the many other PFAS present in sludge. Humans are typically "exposed to a mixture of several PFAS compounds that may have synergistic effects,"[92] and current research suggests that toxicological effects of PFAS exposure may be "more related to total PFAS levels, rather than individual PFAS compounds."[93] To ensure EPA is adequately measuring the risk associated with PFAS-laden sludge, it must consider the impacts of exposure to multiple PFAS at a time.

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[84] NIH, Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) (last visited Apr. 8, 2025), https://perma.cc/5ZPD-JXEW.
[85] *Risk Assessment*, *supra* note 17, at 9.
[86] Ting Zhou et. al, *Occurrence, Fate, and Remediation for Per-and Polyfluoroalkyl Substances (PFAS) in Sewage Sludge: A Comprehensive Review*, J. of Hazardous Materials (Mar. 15, 2024), https://www.sciencedirect.com/science/article/pii/S0304389424002164, at 6.
[87] *Risk Assessment*, *supra* note 17, 113.
[88] *See, e.g.*, Megan Solan et al., *Short-Chain Per- and Polyfluoralkyl Substances (PFAS) Effects on Oxidative Stress Biomarkers in Human Liver, Kidney, Muscle, and Microglia Cell Lines*, 223 Env't Rsch. 115424 (Apr. 15, 2023).
[89] First Amended Complaint and Election of July Trial, *supra* note 5, at 16-17.
[90] *Risk Assessment*, *supra* note 17, at 113.
[91] *Id.* at 113-14.
[92] Jesse A. Goodrich et al., *Metabolic Signatures of Youth Exposure to Mixtures of Per- and Polyfluoroalkyl Substances*, 131 Env't Health Perspectives 027005-1, 027005-8 (Feb. 22, 2023), https://perma.cc/B9YT-B4DZ.
[93] *Id.* at 027005-9.

And finally, EPA's risk assessment fails to adequately analyze the heightened risk to children as well as pregnant and lactating women. Scientific literature consistently confirms that PFAS cause developmental effects in children,[94] and exposure to PFAS places pregnant women at higher risk for gestational diabetes and preeclampsia.[95] Given the increased vulnerabilities of these populations, the risk assessment should make explicit the heightened risks that PFAS-contaminated sludge poses to children and women of child-bearing years.

Collectively, these deficiencies significantly underestimate the risk to communities exposed to PFAS-laden sludge. EPA must address these deficiencies so that those directly impacted by polluted sludge understand the risks to their and their families' health.

IV. The vast majority of the PFAS pollution in our nation's sludge is preventable if industries are forced to treat their own PFAS waste.

The harm caused to these families is unnecessary. Wastewater plants that produce PFAS-laden sludge receive contaminated waste from their industrial customers—industries who pay these utilities to receive their industrially contaminated waste (also known as industrial users). The Clean Water Act anticipates this type of arrangement and requires wastewater plants to use their pretreatment authority to force industries to treat their own waste before it ever reaches the wastewater plants.

Controlling industrial sources of PFAS into wastewater plants would not only help prevent the chemicals from ending up in the wastewater plants' effluent, it would also help prevent the chemicals from building up in sludge. This would put the burden of cleanup on the polluters profiting off the use of these chemicals and drastically reduce the risk of spreading sludge onto farms throughout the country.

A. The Clean Water Act pretreatment program requires wastewater plants to control industrial sources of PFAS.

The Clean Water Act's pretreatment program governs the discharge of industrial wastewater to wastewater plants. The program is intended to place the burden of treatment on the industries that create harmful pollution, rather than on the taxpayers

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[94] *See generally* EPA, *Our Current Understanding of the Human Health and Environmental Risks of PFAS* (last visited Apr. 8, 2025), https://perma.cc/PVJ5-APHZ; Jennifer Ames et al., Effects of Early-life PFAS Exposure on Child Neurodevelopment: A Review of the Evidence and Research Gaps, 12 Current Env't Health Reports (2025), https://perma.cc/2LVW-X2Y7; Fei Luo et al., Exposure to Perfluoroalkyl Substances and Neurodevelopment in 2-Year-Old Children: A Prospective Cohort Study, 166 Env't Int. 107384 (Aug. 2022).

[95] John Szilagyi et al., *Perfluoroalkyl Substances (PFAS) and Their Effects on the Placenta, Pregnancy, and Child Development: a Potential Mechanistic Role for Placental Peroxisome Proliferator–Activated Receptors (PPARs)*, 7 Early Life Env't Health 222-230 (Aug. 18, 2020), https://perma.cc/SVB4-7U9D; Alicia Peterson et al., *PFAS concentrations in early and mid-pregnancy and risk of gestational diabetes mellitus in a nested case-control study within the ethnically and racially diverse PETALS cohort*, BMC Pregnancy & Childbirth (2023), https://perma.cc/H4K9-MZQJ.

that support municipal wastewater plants. Under the pretreatment requirements, wastewater plants are required to know what waste they receive from their industrial users.[96] EPA has confirmed that this requirement extends to pollutants that are not conventional or listed as toxic, like PFAS.[97] Wastewater plants must instruct their industries to identify their pollutants in an industrial waste survey[98] and then to apply for a pretreatment permit, by disclosing "effluent data," including on internal waste streams, necessary to evaluate pollution controls.[99] Significant industrial users are further required to provide information on "[p]rincipal products and raw materials . . . that affect or contribute to the [significant industrial user's] discharge."[100]

After obtaining information on what their industries discharge, wastewater plants are required to regulate their industries so that they do not cause "Pass Through" or "Interference," or otherwise violate pretreatment laws.[101] Pass Through is when an industrial discharge causes a wastewater plant to violate its own discharge permit,[102] including standard conditions such as the one requiring permittees to "take all reasonable steps to minimize or prevent any discharge or sludge use" that has a "reasonable likelihood of adversely affecting human health or the environment."[103] Industries are also not permitted to interfere with wastewater plant operations. Interference occurs when a discharge disrupts a wastewater plant's operations or its sludge use or disposal and violates the plant's discharge permit or other applicable laws.[104] Violating the prohibitions on Pass Through or Interference constitutes a violation of the Clean Water Act's pretreatment standards and requirements.[105]

To effectively prevent industries from causing Pass Through and Interference, wastewater plants have broad authority to: (1) "deny or condition" pollution permits for industries, (2) control industrial pollution "through Permit, order or similar means," and (3) "require" "the installation of technology."[106] Municipalities can also implement local limits to further control any industrial pollution received.[107]

These rules are how the Clean Water Act "assures the public that [industrial] dischargers cannot contravene the [Clean Water Act's] objectives of eliminating or at

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[96] 40 C.F.R. § 403.8(f)(2).
[97] *See* EPA, PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024 14 (Oct. 2021), https://perma.cc/LK4U-RLBH.
[98] 40 C.F.R. § 403.8(f)(2)(ii); EPA, Introduction to the National Pretreatment Program (Jun. 2011), https://perma.cc/95VY-S8YU, at 4-3.
[99] EPA, Industrial User Permitting Guidance Manual (2012), https://perma.cc/L92D-NEPY, at 4-2 to 4-3.
[100] 40 C.F.R. § 122.21(j)(6)(ii)(C).
[101] *Id.* §§ 403.8(a), 403.5(a)(1).
[102] Pass through is defined as "a discharge which exits the [treatment works] into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the [treatment works'] NPDES permit (including an increase in the magnitude or duration of a violation)." *Id.* § 403.3(p).
[103] *Id.* § 122.41(d).
[104] *Id.* § 403.3(k).
[105] *Id.* § 403.5(a)(1).
[106] 40 C.F.R. § 403.8(f)(1).
[107] *Id.* § 403.5.

least minimizing discharges of toxic and other pollutants simply by discharging indirectly through [wastewater plants] rather than directly to receiving waters."[108] The laws governing the program ensure that wastewater plants do not become dumping grounds for uncontrolled industrial waste.

B. As shown throughout the country, the pretreatment program can significantly reduce PFAS pollution in wastewater plant discharges and sludge.

Wastewater plants that have prioritized controlling industrial sources of PFAS have shown that they can drastically reduce the PFAS levels in their wastewater and sludge by effectively using their pretreatment program authority.

For instance, in Michigan, wastewater plants have significantly reduced PFAS pollution in their effluent and sludge by requiring industries to pre-treat for the chemicals. In 2018, after discovering that a municipal wastewater plant had been discharging PFOS into the Flint River,[109] Michigan's Department of Environment, Great Lakes, and Energy required all wastewater plants in the state to sample their industries' wastewater, implement PFOA and PFOS reductions at confirmed sources, and, if necessary, develop technology-based local limits to ensure control of PFAS pollution.[110] Over the following two years, wastewater plants collected PFAS data from their industries.[111] After that, wastewater plants that had significant PFAS pollution reduced industrial sources, including by requiring their industries to install granular activated carbon (and other effective PFAS treatment technologies) and to eliminate leaking sources of PFAS pollution.[112] This was successful. For the wastewater plants that required industries to reduce their PFAS pollution, PFOS concentrations were reduced *by over 90 percent*.[113] For most wastewater plants, reductions ranged between 96 and 99 percent.[114]

Concentrations in sludge were similarly reduced once industrial sources reduced their PFAS.[115] Recognizing the effectiveness of the pretreatment program in addressing PFAS contamination of biosolids, Michigan modified its sludge management program in 2021. The state began requiring wastewater plants to sample their sludge and, if PFOS levels were above a certain threshold, the wastewater plant had to investigate any industrial sources and develop a source reduction program.[116] In 2024, Michigan added

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[108] General Pretreatment Regulations for Existing and New Sources, 52 Fed. Reg. 1586, 1590 (Jan. 14, 1987) (codified at 40 C.F.R. § 403).
[109] Bogdan, *supra* note 12, at 5.
[110] *Id.*
[111] *Id.* at 5–6.
[112] *Id.* at 14 (table 9).
[113] *Id.*
[114] *Id.*
[115] Bogdan, *supra* note 12, at 13.
[116] Letter from Teresa Seidel, Water Resources Division, Michigan Dep't of Env't, Great Lakes, and Energy, to Permittee (Apr. 5, 2021), https://perma.cc/QEV7-9PXQ.

PFOA to the program.[117] Michigan's effective use of the pretreatment program has successfully reduced PFAS levels in sludge *by more than 90 percent*.[118]

Similar use of the pretreatment program has reduced PFAS pollution in central North Carolina. There, the city of Burlington operates a wastewater plant that receives industrial wastewater from multiple industrial sources of PFAS, including a textile manufacturer named Burlington Finishing (formerly, Elevate Textiles). Burlington Finishing's PFAS discharges have been documented at levels higher than *10.8 million ppt*[119] and have, in combination with other sources, caused the wastewater plant to discharge PFAS at concentrations exceeding 33,000 ppt.[120] In addition to its wastewater pollution, Burlington's sludge similarly contained levels of PFAS at nearly 12,000 ppt.[121]

Because this pollution was contaminating downstream drinking water, Haw River Assembly—a non-profit based in Pittsboro, North Carolina (a community downstream of Burlington)—threatened to sue the city. The parties ultimately reached an agreement that required the city to use its pretreatment authority. Burlington agreed to investigate its industries and require them to stop their pollution before it reached its wastewater plant.[122] Industries (including Burlington Finishing) were eventually given the option to treat their wastewater, discontinue the use of PFAS, or install other processes that would prevent the chemicals from reaching the city's wastewater plant.[123] As a result of these pretreatment tools, PFAS in Burlington's wastewater have already decreased by more than 90 percent.[124] In addition, the PFAS in Burlington's sludge have decreased,[125] and are expected to further decrease as industries complete their steps to treat and stop their flow of PFAS.

The case studies above demonstrate that effective use of the pretreatment program can significantly reduce toxic PFAS in sludge and our drinking water sources. While it traditionally falls on municipal wastewater plants to carry out the pretreatment program, it is up to EPA and states with delegated authority to ensure wastewater plants

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[117] Letter from Phil Argiroff, Water Resources Division, Michigan Dep't of Env't, Great Lakes, and Energy, to Permittee (Dec. 27, 2023), https://perma.cc/LA93-2ZE5.
[118] Jennifer Bush, *Michigan's Management of PFAS in Wastewater Treatment Plants and Associated Biosolids* (Jan. 19, 2023), https://perma.cc/KHK3-8FHB, at slide 15.
[119] Env't Analytical Chem. Lab., PFAS Analytical Data from Sampling of the City of Burlington's Wastewater plant Influent and Effluent and Elevate Textiles' Wastewater Discharges, Duke Univ., https://perma.cc/46YY-A7GG. The Environmental Analytical Chemistry Laboratory at Duke University—on behalf of Haw River Assembly and the Southern Environmental Law Center—conducted Targeted and Total Oxidizable Precursor (TOP) Assay analyses of industrial sources releasing wastewater into Burlington's wastewater plant, including Elevate Textiles.
[120] City of Burlington, *Archive 2024-02-1 PFAS and 1,4-Dioxane Sampling* (2024), https://perma.cc/MZX8-4ZNV.
[121] Knappe, *supra* note 52, at slide 5.
[122] City of Burlington and Haw River Assembly, Memorandum of Agreement (Oct. 22, 2020), https://perma.cc/VL9D-KDL8.
[123] City of Burlington and Haw River Assembly, Settlement Agreement (Aug. 1, 2023), https://perma.cc/T69T-6J5Y.
[124] *See* City of Burlington, PFAS and 1,4-Dioxane Effluent Sampling (2025), https://perma.cc/48Y7-Q52R.
[125] *Archive 2024-02-1 PFAS and 1,4-Dioxane Sampling*, *supra* note 120.

are doing so.[126] As EPA continues to evaluate the risk associated with PFAS-laden sludge, we urge the agency to enforce the pretreatment program as a first step towards reducing this ongoing contamination.

V. EPA must do more to control industrial PFAS contamination.

The prior administration took significant steps toward addressing PFAS pollution by adopting rules limiting the concentrations of certain PFAS allowed in drinking water and listing two PFAS as hazardous substances under the nation's Superfund law. These rules are important for protecting communities from existing contamination and must remain in place.

At the same time, EPA must also focus on rules that prevent industries from releasing toxic PFAS pollution in the first place. The Biden-Harris administration had planned to limit the amount of PFAS that industries can release into rivers and municipal wastewater plants through Clean Water Act Effluent Limitation Guidelines, as well as begin a rulemaking to list nine PFAS as hazardous constituents under the Resource Conservation and Recovery Act. To further protect our communities, EPA should continue these, and other regulatory efforts, designed to ensure that PFAS are kept out of environment.

VI. Conclusion

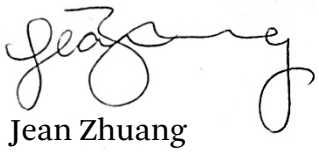
As EPA's risk assessment shows, the families who rely on farms and ranches throughout the country are most at risk from PFAS-laden sludge. That is because, for decades, they have been told that this sludge was safe for their land, their food and water, and their families. It is unacceptable that these communities have been exposed to these toxic chemicals in the first place. Not only is this harm unjust, but it is also avoidable. Industries that use PFAS chemicals (and therefore profit off them) should bear the burden of treating for this pollution—so that PFAS do not end up in sludge in the first place.

EPA must do two things with this risk assessment. First, the assessment recklessly underestimates the harm that PFAS-polluted sludge causes to farming families—it must be amended to reflect reality. Sludge is far more polluted than the assessment assumes, and families are exposed in more ways than one. Second, EPA must use the assessment to act on industrial PFAS pollution that is being sent to wastewater plants throughout the country. It must begin using its authority to require industries to pre-treat for PFAS so that their industrial chemical pollution does not reach wastewater plants.

[126] *See* 40 C.F.R. § 403.8(a); 33 U.S.C. § 1319(f).

Thank you for considering these comments. Please contact SELC at 919-967-1450 or jzhuang@selc.org if you have any questions regarding this letter.

Sincerely,



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