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**BEFORE THE
SENATE COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL
AFFAIRS
FIELD HEARING ON PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)**

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Good morning, Chairman Peters. I am Bruno Pigott, Deputy Assistant Administrator for Water at the U.S. Environmental Protection Agency. Thanks to you and to Ranking Member Portman for the opportunity to testify before this Committee today on the very important topic of per- and polyfluoroalkyl substances, also known as PFAS, and to do so alongside my federal colleagues at the Department of Defense and Air Force and at the Agency for Toxic Substances for Disease Registry (ATSDR).

Today's hearing is focused on PFAS and on ensuring effective interagency and intergovernmental coordination on this critical issue. My perspective at today's hearing is guided not only by my current role at EPA, but also by my recent experience as Commissioner of the Indiana Department of Environmental Management. In these and other roles, I have experienced firsthand the critical importance of effective coordination within the federal government, between federal and state agencies, and within state government. I am also excited to be here today at my alma mater, Michigan State, and in a state I consider my home state.

Background on PFAS

PFAS have been manufactured and used in a variety of industries in the United States and around the globe since the 1940s. Because we have used them for so long, because of the diversity

of their uses, and because of their durability in the environment, PFAS can now be found in surface water, groundwater, soil, and air—from remote rural areas to densely populated urban centers. They can be found in the tissue of fish caught in our rivers and lakes and streams. Despite evidence suggesting that some PFAS have harmful effects, they are still used in a wide range of consumer products and industrial applications, from rain jackets to hiking boots, from cookware and food packaging to carpeting, and from fabrics to firefighting foam.

Human exposure to PFAS can occur in a number of ways, such as through consuming PFAS in drinking water or food. Exposure also occurs through contact in the handling or use of PFAS in manufacturing, chemical processing, and other applications. Some levels of exposure may also occur by using products that contain PFAS. And PFAS can even be passed on from mother to child during pregnancy and breastfeeding.

A growing body of scientific evidence shows that exposure at certain levels to specific PFAS can adversely impact human and ecological health. Studies indicate that two common PFAS—perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS)—can cause reproductive and developmental, liver and kidney, and immunological effects in laboratory animals. Both chemicals have caused tumors in animal studies. The most consistent findings from human epidemiology studies are that exposure to certain levels of PFAS may lead to increased cholesterol levels among exposed populations, with more limited findings related to infant birth weights, effects on the immune system, cancer (for PFOA), and thyroid hormone disruption (for PFOS). And recent scientific data and new analyses indicate that negative health effects may occur at much lower levels of exposure to PFOA and PFOS than previously understood.

EPA's PFAS Efforts and PFAS Strategic Roadmap

President Biden illustrated his commitment to tackling PFAS contamination by appointing Michael S. Regan as the EPA Administrator. Administrator Regan has seen this problem up close. In North Carolina, he tackled PFAS in the Cape Fear River. He followed the science. He followed the law. And he made significant progress. But he also learned first-hand that there is a desperate need for federal coordination and leadership on this issue, and that is what he has brought to EPA. Under the Biden-Harris Administration, EPA has worked tirelessly from day one to restore scientific integrity and accelerate the research and policies needed to systematically shift and accelerate the Agency's approach to protecting the public from PFAS.

To ensure effective coordination within EPA, one of Administrator Regan's earliest actions was to establish the EPA Council on PFAS. The Council is comprised of senior Agency leaders who are charged with developing a whole-of-agency plan to accelerate progress on PFAS. Administrator Regan also charged the Council with prioritizing partnerships and collaboration within EPA and with EPA's partners, and with continuing to engage with the public about the risk associated with these chemicals. The Council is co-chaired by my boss, Radhika Fox, EPA's Assistant Administrator for Water, and by EPA Region 1 Deputy Regional Administrator Deb Szaro. I would also like to note that Tera Fong, Director of the Water Division in EPA Region 5 in Chicago, is also a member of the Council.

EPA's Council on PFAS has worked hard to accelerate the Agency's PFAS work. Most notably, in October 2021, the Agency released its PFAS Strategic Roadmap, which lays out EPA's whole-of-agency approach to use every available tool to safeguard communities from PFAS contamination. The actions EPA has already taken, and the actions we intend to take in the coming years, will help ensure that the Agency makes rapid progress to protect public health and the

environment. The Roadmap highlights that every level of government—federal, state, and local—needs to exercise increased and sustained leadership to accelerate progress to clean up PFAS contamination, prevent new contamination, and make game-changing breakthroughs in the scientific understanding of PFAS. The theme of today’s hearing – improving interagency and intergovernmental coordination – fits well with this priority.

To deliver needed protections for the American people, the Roadmap sets timelines by which the Agency will take specific actions during the first term of the Biden Administration. The Roadmap builds on and accelerates implementation of policy actions identified in the Agency’s 2019 action plan and commits to bolder new policies to safeguard public health, protect the environment, and hold polluters accountable. The Roadmap is guided by the following goals:

- **Research.** Invest in research, development, and innovation to increase the understanding of PFAS exposures and toxicities, human health and ecological effects, and effective interventions that incorporate the best available science;
- **Restrict.** Pursue a comprehensive approach to proactively prevent PFAS from entering air, land, and water at levels that can adversely impact human health and the environment; and
- **Remediate.** Broaden and accelerate the cleanup of PFAS contamination to protect human health and ecological systems.

These touchstones will guide all of EPA’s work as the Agency advances progress to apply a lifecycle approach to PFAS and works to prevent PFAS from entering the environment in the first place. The Agency will also seek to hold polluters and other responsible parties accountable for their actions and for PFAS remediation. EPA is also investing in a surge of scientific research

to fill gaps in our understanding of PFAS, to identify which additional PFAS may pose human health and ecological risks at which exposure levels, and to develop methods to test, measure, remove, and destroy them. The Agency will also ensure that disadvantaged communities have equitable access to solutions. The actions described in the Roadmap each represent important and meaningful steps to safeguard communities from PFAS contamination.

Recent EPA Actions on PFAS

I wanted to highlight a few of the significant actions EPA has taken since release of the Roadmap last October:

- On June 15, EPA released drinking water health advisories for four PFAS, including interim health advisories for PFOA and PFOS; and final health advisories for hexafluoropropylene oxide (HFPO) dimer acid and its ammonium salt (more commonly referred to as “GenX chemicals”), and for perfluorobutane sulfonic acid and its potassium salt (otherwise known as PFBS). The Agency released these PFAS health advisories in light of newly available science and in accordance with EPA’s responsibility to protect public health. EPA’s interim health advisories for PFOA and PFOS are based on publicly available EPA drafts undergoing Science Advisory Board Review, and the final health advisories for GenX chemicals and PFBS are based on publicly available, peer-reviewed final toxicity assessments published in 2021. These advisories indicate the level of each PFAS in drinking water below which adverse health effects are not expected to occur.
- Concurrently with release of these health advisories, EPA announced that it is inviting states and territories to apply for \$1 billion in Bipartisan Infrastructure Law funding to address PFAS and other emerging contaminants in drinking water,

specifically in small or disadvantaged communities. This is the first in a total of \$5 billion that will be available under this grant program. These funds can be used to address PFAS in drinking water through actions such as technical assistance, water quality testing, contractor training, and installation of centralized treatment technologies and systems. This funding complements \$3.4 billion in funding that is going through the Drinking Water State Revolving Funds (SRFs) and \$3.2 billion through the Clean Water SRFs that can also be used to address PFAS in water this year.

- On June 6, EPA issued its first Toxic Substances Control Act test order under EPA's National PFAS Testing Strategy, a key component of the Agency's Roadmap designed to deepen our understanding of categories of PFAS. Test orders are the first step under the Testing Strategy to protect human health and the environment from the potential risks of PFAS. The information from these initial orders will provide the Agency with critical information on more than 2,000 similar PFAS that fall within these categories.
- In May, EPA took an important step forward to protect people from PFAS by adding five PFAS to a list of risk-based values for site cleanups. These values, known as Regional Screening Levels and Regional Removal Management Levels, help EPA determine if further investigation or actions are needed to protect public health, such as sampling, assessing risks, and taking further action. EPA's action provides the Agency with critical tools needed for Superfund and other Agency programs to protect people from these PFAS chemicals using the latest peer-reviewed science.
- In April, my colleagues in EPA's Office of Water announced three actions that

advance progress under the PFAS Roadmap:

- First, EPA proposed the first Clean Water Act aquatic life criteria for PFAS, focusing on two of the most well-studied chemicals in this group: PFOA and PFOS. These draft recommendations reflect the latest peer-reviewed scientific knowledge regarding the toxicological effects of PFOA and PFOS on freshwater aquatic organisms.
- Second, EPA issued a memo to proactively use its Clean Water Act permitting authorities to reduce discharges of PFAS at the source and to obtain more comprehensive monitoring information on potential sources of PFAS through EPA-issued permits. The memo will help minimize PFAS pollution in surface water as EPA works to set effluent guidelines, develop analytical methods, and issue water quality criteria for PFAS. This memo applies to Clean Water Act programs EPA oversees; EPA plans to issue a subsequent memo that provides guidance to state permitting authorities.
- Third, EPA published a new draft method to measure for Adsorbable Organic Fluorine in water samples. This new method, known as draft EPA method 1621, can broadly screen for the presence of chemical substances that contain carbon-fluorine bonds, including PFAS.

Looking ahead, our top PFAS priority in the Office of Water this year is to meet our commitment in the Roadmap to set enforceable limits for PFAS in drinking water under the Safe Drinking Water Act. By the end of 2022, we plan to propose a rule that would set enforceable limits for PFOA and PFOS in drinking water, require monitoring of public water supplies, and evaluate additional PFAS and groups of PFAS for regulation.

We know that our state partners in Michigan, and states around the country, have been calling for the federal government to take a more proactive approach toward PFAS. They have, for example, asked for enforceable nationwide drinking water standards for years. Under the Roadmap, EPA is taking this action as quickly as possible, and in advance of our statutory deadline to do so, to help restore federal leadership in this critical area. Consistent with the Roadmap, we plan to finalize these standards by the end of 2023.

Federal and State Coordination

EPA is working closely with our federal agency partners, including my colleagues here today at the Department of Defense (DoD) and ATSDR, as part of coordinated actions across the Biden-Harris Administration to combat PFAS pollution. Concurrently with release of the Roadmap last October, the White House announced additional coordinated action to advance critical progress on securing clean air, safe food, and clean drinking water. Through these efforts, EPA and its partners are advancing priority efforts on research, analytical methods, site cleanup, and other areas. For example, EPA is collaborating with our interagency partners to promote sustainable acquisition and procurement under Executive Order 14057, which includes a focus on prioritizing the purchase of products without added PFAS. EPA is also collaborating with agencies such as DoD on analytical methods, the Department of Health and Human Services (including ATSDR) on understanding PFAS exposure, and the Department of Agriculture and the Food and Drug Administration on PFAS in the food system.

Building on this federal coordination, we know we can only make progress if we work in close collaboration with Tribes, states, localities, and other stakeholders. A critical goal of our Roadmap is to support states' ongoing efforts to tackle PFAS – by increasing scientific understanding and empowering states with the methods, tools, and technologies to address PFAS.

Our coordination efforts with Michigan's Department of Environment, Great Lakes, and Energy (EGLE) are led by my colleagues in EPA's Region 5 office in Chicago. EPA Region 5 works closely with the State to provide funding, support site investigations, lend enforcement authority, give technical assistance, provide sampling, and collaborate on research. EPA and Region 5 look forward to our continued work with EGLE on these critical efforts.

I want to acknowledge the significant steps that EGLE has taken to address PFAS in Michigan. Michigan's establishment of the Michigan PFAS Action Response Team (MPART) in 2017 was a precedential step toward effective state coordination on PFAS that has since been mirrored in other states. As Chairman Peters is well aware, Michigan has created a unique, multi-agency proactive approach for coordinating state resources to address PFAS. Governor Whitmer, Kara Cook, Abigail Hendershott (who is testifying later this morning), my friend Liesl Clark, Elizabeth Hertel, Director McDowell, Director Eichinger, and MPART Representatives and workgroups have established an 'all of government' approach to tackling PFAS issues head-on. Michigan has been a proactive leader in identifying potential sources of PFAS contamination, setting drinking water standards, and communicating with the public. Many of these efforts have both been a model for other states and also serve as examples we are looking to at EPA as we seek to restore federal leadership on PFAS.

Conclusion

Before I close, I want to acknowledge that communities have been suffering from exposure to PFAS pollution for far too long. I understand that communities may be concerned, confused, or frustrated by what we know and don't know about the scope and impact of PFAS contamination. And I understand that different levels of government have not always been working closely together toward enduring and protective PFAS solutions.

To truly deliver the PFAS protections that communities deserve—to be able to tell people across the country that their air, land, and water are safe—all of EPA’s partners must work together. Our collective ability to achieve needed health and ecological protections as quickly as possible will be determined by our partnership with Congress, other federal agencies, Tribal governments, state health and environmental agencies, community organizations, local officials, public health professionals, industry, and academia. As EPA does more, we will learn more. And as EPA learns more, we will do more. As EPA continues to build the evidence base, as regulatory work matures, and as EPA learns more from its partnerships across the country, the Agency will deliver additional actions commensurate with the urgency and scale of response that the PFAS problem demands.

Thank you for the opportunity to testify before you today, and I look forward to our discussion.