Toxic Pollutant List & Priority Pollutant List Petition
Section-by-Section Executive Summary

I. Introduction

Much of the efficacy of the Clean Water Act relies upon the identification of pollutants on the Toxic Pollutant List. Despite the thousands of new chemicals brought into commerce in recent decades—and now found in the nation's waterways, drinking water wells, sediment, fish, and wildlife—EPA has not added a single pollutant to the list in 47 years. The ramifications to human health and the environment are huge. By failing to place the PFAS "forever" chemicals on the list, EPA jeopardizes its goal of controlling these highly toxic, persistent pollutants. EPA cannot meet its environmental justice goals without adding pollutants to the Toxic Pollutant List. And EPA's failure to update the list jeopardizes threatened and endangered species, including the 74-member population of Southern resident killer whales, among the most contaminated marine mammals in the world. Although EPA has admitted that the list is outdated, it has taken no steps to add any of the thousands of new chemicals to its Clean Water Act regulatory program.

II. Jurisdiction, Authority, and Statutory Duties of the EPA

The Toxic Pollutant List was developed by EPA in 1976, as the result of litigation, and subsequently included in the Clean Water Act by Congress. (EPA later created the Priority Pollutant List for ease of use.) The Clean Water Act instructed EPA to add to the Toxic Pollutant List "from time to time." The list is key to both the technology-based and water quality-based approaches embodied in the Clean Water Act. To carry out the first, for each listed pollutant, EPA is required to develop maximum pollution outputs—called *national effluent limitation guidelines ("ELG")*—by industrial sector. These ELGs are then incorporated into discharge permits for individual facilities. EPA is also required to evaluate which toxic pollutants discharged by industrial sources to sewage collection systems are not removed by sewage treatment. Similar to the ELGs, for those toxics that pass through sewage treatment plants to rivers, EPA is required to establish *pretreatment standards* by industrial sector. Finally, EPA also develops recommended criteria—acceptable levels of pollutants for the protection of human health and aquatic life—that states must adopt into their water quality standards for pollutants that are on the Toxic Pollutant List. The Petition also reviews Congressional frustration with the slow pace of controlling toxics in the nation's rivers that led to its amending the Clean Water Act in 1987; the role of narrative criteria in water quality standards; and the requirements to protect wildlife and sediment.

III. Toxic Contamination Plagues the Nation's Waters

Water quality monitoring looks at the volume of toxics discharged to the nation's waters as well as how much toxic contamination is present in water, animal tissue, and sediment. The Petition discusses these data and highlights toxic contamination—and its effects—in three areas of the country: the northwest's Columbia River, Puget Sound, and the southeast's Piedmont Region. Then it discusses four examples of toxic effects on fish and wildlife from: (1) chemical contaminant mixtures with additive adverse health effects, even as they are regulated one-by-

one; (2) endocrine disruption and chemicals' causing intersex conditions in fish; (3) sublethal effects to threatened and endangered salmon including reproductive failure, metabolic, and behavioral impacts; and (4) toxics on marine mammals, such as orcas—the most contaminated marine mammals in the world—and other aquatic-dependent wildlife.

IV. Clean Water Act Failures Cause Environmental Injustice and Harm Children

Bioaccumulative toxic pollutants that persist in the environment cause adverse health impacts to people through drinking water and consumption of contaminated fish, aquatic plants, and wildlife. These toxics inequitably affect communities of color, low-income communities, tribes, and other indigenous people for multiple reasons including, for example, their higher-than-average consumption of fish and consumption of high-lipid parts of fish. The Petition discusses the continuing health warnings to members of the Penobscot Indian Nation about consuming contaminated fish and other species. It discusses the decades of risk calculations for Columbia River tribes that have not led to reductions in toxic pollution. It reviews fish and seaweed consumption rates in Native American tribes and Asian and Pacific Islanders in the Puget Sound region, as well as high levels of fish and marine mammal consumption by tribal members in rural Alaska. For other communities, contaminated drinking water drives health risks, such as those in Appalachia near mountaintop removal mining who have significantly higher rates of cancer and birth defects. Among many metals contaminating drinking water in the Appalachian Plateaus is the **neurotoxicant manganese—**found at levels "way off the scale"—a metal that affects memory, attention, motor skills, and intellectual development in children. Finally, the Petition discusses how children are particularly at risk from toxic contamination due to periods in their development when they are "exquisitely sensitive to any adverse effects of chemicals," according to the Agency for Toxic Substances and Disease Registry ("ATSDR").

V. EPA's Failure to Update the Toxic Pollutant List Undermines Regulation of Both Direct and Indirect Toxic Discharges

The *technology-based prong* of the Clean Water Act is carried out through EPA's development of national effluent limitation guidelines ("ELGs") that regulatory agencies translate into discharge permit limits. Established by industrial sector, EPA has failed to update ELGs for most major industries for two decades, with most ELGs' being three, four, and five decades old. The Petition uses the **plastics industry** to illustrate how EPA's 35-year old guidelines have failed to keep up with the industry's use of new toxic additives, including PFAS. The toxic pollutant **nonylphenol** serves as another illustration of EPA's outdated program because it is not included in any ELGs despite EPA's concerns about the growing volume of nonylphenol production, its being one of the most commonly occurring contaminants across the country, and having been identified as one of the greatest concerns to the endangered Southern Resident killer whales. While ELGs control direct discharges from industries to surface waters, more than one third of toxic pollutants come from **indirect** discharges by industries to public sewer collection systems. Because it relies heavily on the outdated Toxic Pollutant List, EPA's *pretreatment program* for indirect dischargers is failing to keep toxic pollutants out of the nation's waters. PFAS provides a particularly stark example because sewage treatment not only does not remove PFAS, but it often increases its levels. The Petition highlights the efforts by Michigan and an Oregon sewage utility to use pretreatment to reduce PFAS discharges.

VI. NPDES Discharge Permitting Program is Failing to Control Toxics

This section of the Petition explains how the *water quality-based prong* of the Clean Water Act—which is based on state-by-state water quality standards—also fails to control toxic pollution in the nation's waters, and why adding pollutants to the Toxic Pollutant List is an essential step to improve both approaches. The many reasons why existing programs are not working include: (1) a dearth of monitoring information; (2) poor implementation of the Clean Water Act requirement to identify waters as "impaired" by toxics; (3) inadequate testing of discharged effluent; (4) the use of regulatory "mixing zones" that serve as a get-out-of-jail-free card for sources discharging toxics; (5) failure of permit writers to consider the build-up of toxics in sediments, fish, and wildlife; (6) reliance on short-term lab studies to purportedly protect species from toxic effects even though such Whole Effluent Toxicity ("WET") tests do measure long-term effects such as bioaccumulation and carcinogenicity; and (7) the mistaken assumption that states are developing required, and largely ineffective, clean-up plans called Total Maximum Daily Loads ("TMDLs") for toxics.

VII. The Outdated Toxic Pollutant List Results in Regulatory Failure

The heart of the Petition, this section identifies toxic pollutants from numerous EPA programs that should be placed on the Toxic Pollutant List. These are:

- A group of 16 pollutants for which **EPA had developed recommended criteria** but for which states are not required to adopt water quality standards because the toxics are not on the list: aluminum, ammonia, carbaryl, chlorpyrifos, chloride, chlorine, demeton, diazinon, iron, malathion, gunthion, mirex, methoxychlor, nonylphenol, parathion, and tributyltin.

- Two **PFAS "forever" chemicals** for which EPA is currently developing recommended criteria are also not on the Toxic Pollutant List.

- EPA has included hundreds of toxic pollutants, including persistent bioaccumulative toxics pollutants, in the **Toxics Release Inventory** ("TRI") Program that gathers data on toxic releases to the environment yet most of these are not on the Toxic Pollutant List.

- Toxic pollutants found at **Superfund sites** are subject to source control to prevent recontamination during and after clean-up of these hazardous waste sites. Some of these pollutants, however, are not on the Toxic Pollutant List.

- **"Contaminants of Emerging Concern"** includes endocrine-disrupting pollutants that interfere with normal hormone action in the body's glands, organs, and hormones that regulate functions such as body growth, response to stress, sexual development, production of insulin and utilization of glucose, metabolism, neurodevelopment, intelligence, behavior, sleep patterns, blood pressure, fertility, and reproduction. Endocrine disruptors include everyday products such as prescription and over-the-counter pharmaceuticals, personal care products, cosmetics, cleaners, construction materials, food

additives, pesticides, plastics, dyes, and synthetic musks. Although these and other pollutants are referred to as "emerging," many were identified over 30 years ago. The Petition highlights the prevalence of **pharmaceuticals and personal care products** (PPCPs) found in the nation's waters; the ubiquitous fire retardant Polybrominated Diphenyl Ethers ("**PBDE**"); the **synthetic estrogen** 17α-ethynylestradiol; highly toxic **organotins**; the salmon-killing tire contaminant **6PPD-quinone**; and **microplastics** that are hazardous in their own right and serve as a vector for other toxics.

- Although many metals are regulated by EPA, the Petition highlights several that are not including the **neurotoxicant manganese** that is found in extremely high levels in drinking water, and **cobalt** that is hazardous to aquatic life and essential for batteries used in cellphones and electric cars.

- Numerous **currently-used pesticides** have been determined by the expert fish and wildlife agencies—the National Marine Fisheries Service and U.S. Fish and Wildlife Service—to jeopardize the continued existence of threatened and endangered species that depend wholly or in part on aquatic habitat.

- In 1992, EPA developed the **National Toxics Rule** ("NTR") to establish water quality standards for recalcitrant states. The NTR, however, only includes those toxics that are on the Toxic Pollutant List, leaving out all modern criteria (for aluminum, ammonia, carbaryl, diazinon, nonylphenol, parathion, and tributyltin) and criteria from the 1980s (for ammonia, chloride, chlorine, chlorpyrifos, demeton, guthion, iron, malathion, methoxychlor, and mirex).

- Other persistent, bioaccumulative, and toxic chemicals have been identified by EPA programs under the **Toxic Substances Control Act** ("TSCA"), which requires reporting and testing for some chemical substances, and the **Resource Conservation and Recovery Act** ("RCRA"), which governs the management of hazardous and non-hazardous solid waste.

- A **1976 list of pollutants** was identified when the Toxic Pollutant List was initially drafted that were not placed on the list. These include: acetone, n-alkanes (C[10]-C[30]), biphenyl, chlorine, dialkyl ethers, dibenzofuran, diphenyl ether, methylethyl ketone, nitrites, secondary amines, styrene, and terpenes.

- Scores of toxic pollutants are regulated under EPA **national effluent limitation guidelines** as "nonconventional" pollutants despite meeting the definition of being "toxic," resulting in no regulation under water quality-based permitting.

- Federal agencies have identified toxic constituents including: (1) **hundreds of toxics identified by the U.S. Geological Survey** ("USGS") for its National Ambient Water Quality Assessment ("NAWQA") constituent prioritization; and (2) EPA's identification of **unregulated drinking water contaminants** under the Safe Drinking Water Act.

VIII. Relief Requested by the Petition

The Petition requests that EPA add over 780 named pollutants and pollutant families to the Toxic Pollutant List and Priority Pollutant List. In addition, it requests the following rulemaking actions by EPA:

- To establish by rule a method by which EPA will (1) propose changes to and accept public input on the Toxic Pollutant List and Priority Pollutant List every three years; (2) commit to revise the lists upon completion of this triennial review; and (3) make determinations pursuant to CWA Section 307(b)(1) to identify pollutants that are not susceptible to treatment by publicly owned treatment works and are therefore likely to pass through such facilities, or to interfere with the operation of such treatment works; and

- For pollutants identified in this petition, make determinations pursuant to CWA Section 307(b)(1) to identify pollutants that are not susceptible to treatment by publicly owned treatment works and are therefore likely to pass through such facilities, or to interfere with the operation of such treatment works, for both those with only secondary treatment and those with advanced secondary and/or tertiary treatment operations.