

# PFAS Policy Toolkit





An Alliance for a Healthier World

### **ABOUT SAFER STATES**

Safer States is a national alliance of environmental health organizations and coalitions from across the nation working to safeguard people and the planet from toxic chemicals, and to ensure availability of safer solutions for a healthier world. Led by statebased organizations, the alliance seeks government and corporate action that lead to safer chemicals and materials, and protection of public health and communities by transitioning away from harmful chemicals and holding chemical polluters accountable.

### ABOUT THIS TOOLKIT

This toolkit contains information on PFAS, policy recommendations for how best to address its use broadly as well as in textiles, firefighting foam, food packaging, juvenile products, ski wax and cosmetics as well as a comprehensive model requiring disclosure and authorizing the ban of PFAS in all products.

Each section contains resources that can be used to educate lawmakers and advocates about solutions to the PFAS crisis as well as recommendations for best practices in PFAS regulation.

Safer States' comprehensive model policy on PFAS can be found <u>here</u>.

#### **TABLE OF CONTENTS**

- 04 INFORMATION ABOUT PFAS AND FAQS
- 16 USING THE MODEL POLICIES
- 17 GENERAL LEGISLATIVE LANGUAGE GUIDELINES ON PFAS
- **19 PFAS IN PRODUCTS**
- **20 PFAS IN TEXTILES**
- 23 PFAS IN CLEANING PRODUCTS
- 25 PFAS IN OIL AND GAS PRODUCTS
- 27 PFAS IN COOKWARE
- **29 PFAS IN COSMETICS**
- 31 PFAS IN SKI WAX
- **33 PFAS IN MENSTRUAL PRODUCTS**
- 34 PFAS IN ARTIFICIAL TURF
- **35 PFAS IN JUVENILE PRODUCTS**
- **36 PFAS AND FOOD PACKAGING**
- **39 PFAS AND FIREFIGHTING FOAM**

44 - DISCLOSURE AND REGULATION OF PFAS IN ALL PRODUCTS PFAS AND WATER

- 47 PFAS AND WATER
- **50 PFAS POLLUTION IN WASTEWATER AND FARMLANDS**

53 - ADDING PFAS TO STATE SUPERFUND HAZARDOUS SUBSTANCE LISTS

55 - PFAS TASK FORCE CREATION

57 - REVENUE GENERATION FOR PFAS CLEANUP AND POLLUTION PREVENTION

#### INFORMATION ABOUT PFAS AND FAQS

PFAS, per- and polyfluoroalkyl substances, represent a pressing environmental and public health crisis across the globe. These synthetic chemicals, commonly found in everyday products like firefighting foam, non-stick cookware, and waterproof clothing, have infiltrated water supplies, soil, and even our bodies. PFAS contamination has emerged as a significant concern for communities worldwide. PFAS contamination has spread extensively, affecting drinking water sources and agricultural lands, posing a significant threat to human health and the environment. Without immediate and concerted action, the long-term consequences of PFAS exposure will be severe. Safer States' PFAS Toolkit provides lawmakers, activists, and concerned citizens with a comprehensive resource to understand, address, and combat this crisis.

#### What are PFAS?

PFAS is an acronym for a class of more than 12,000 chemicals called per- and polyfluoroalkyl substances. These chemicals share the common trait of having at least one carbon-fluorine bond, one of the strongest covalent bonds in organic chemistry, making them incredibly persistent (i.e. they last in the environment for a very long time and don't break down). In fact, PFAS chemicals can persist in the environment for such a long time that some scientists call them "virtually indestructible" or "forever" chemicals.

PFAS are used to impart stain, grease and water resistance to consumer products such as food packaging, carpet, upholstery, outdoor apparel, and to make nonstick pans. They are also put into firefighting foam, specialty products like ski wax, and thousands of other products. PFAS can move out of products resulting in contamination of our food, air, water, wildlife and people.



#### What are the health and environmental impacts associated with PFAS?

PFAS are persistent in the environment, are highly mobile and some bioaccumulate in humans. PFAS have <u>no known degradation pathways</u> in the environment meaning that they stay in <u>surface water</u>, <u>groundwater</u>, <u>wildlife</u> and <u>people</u> and are passed down through generations from mother to child through <u>umbilical cord blood</u> and <u>breastfeeding</u>. These chemicals move throughout the <u>globe as a result of human use and end up in areas such as the Arctic, remote</u> <u>wildlife areas, and open oceans.</u>

<u>The Agency for Toxic Substances and Disease Registry</u> at the CDC states that PFAS have been linked to:

- Pregnancy-induced hypertension/ pre-eclampsia
- Liver damage
- Increased cholesterol
- Increased risk of thyroid disease
- Decreased antibody response to vaccines
- Increased risk of asthma
- Decreased fertility
- Decreased birth weight

People who are exposed to PFAS may be more <u>vulnerable to COVID-19 and its</u> <u>complications</u>. PFAS can harm the immune system which has broad implications ranging from reduced ability to fight off viral infections to increasing the number of people who remain unprotected from a disease after they've received a vaccination.



#### How are PFAS impacting people across the country?

Communities across the country are drinking polluted water, living on polluted soil, wearing toxic uniforms and using harmful PFAS in their everyday lives.

- <u>Laurene Allen</u> in New Hampshire, <u>Sandy Wynn-Stelt</u> in Michigan, and <u>Loreen</u> <u>Hackett</u> in New York were some of the first advocates to call attention to the PFAS crisis.
- <u>Emily Donovan</u> in North Carolina was one of the first activists in North Carolina to sound the alarm about PFAS replacements.
- <u>Amara Strande</u> in Minnesota lost her life to cancer at the age of 20. She lived and went to school near a PFAS dumping site, a fact she and her family blamed for her and many other cancers impacting young people in Minnesota.
- Families living downstream from polluting facilities, like <u>Brenda Hampton's</u> <u>family</u> in Alabama, are seeing multiple family members and neighbors diagnosed with similar diseases.
- A <u>recent peer-reviewed study</u> by the University of Washington, Indiana University and Toxic-Free Future found PFAS in 100 percent of breast milk samples. It also found that detections of PFAS currently being used in a range of products from apparel to furniture are doubling every 4 years.
- Firefighters like <u>Walter Taylor</u> are losing their lives to cancer, caused by chemical exposures they receive on the job. Lt. Paul Cotter's cancer convinced his wife, <u>Dianne Cotter</u>, to look into firefighter turnout gear. Their story and her fight for justice is featured in a new documentary.
- Farms like <u>Songbird Farm</u> in Maine and <u>Jason Grostik's farm</u> in Michigan are being forced to shut down due to polluted sludge spread on their land decades ago.
- <u>Hunters in Maine</u> are being warned <u>not to eat deer</u> because they are contaminated. <u>Minnesota</u> and <u>Wisconsin</u> have also advised their residents to limit the number of fish they eat.
- Veterans, like <u>Mark Favors</u> and his family, <u>drank contaminated water</u> on and near military bases that knowingly used toxic firefighting foam and dumped polluted water into local water sources.
- A new <u>Bloomberg Documentary</u> is a useful tool for advocates to screen for legislators and staff.

#### How are we exposed?

We are <u>exposed to PFAS</u> in food, from indoor air and dust, and in many cases, from drinking water. Food, air, and water have become contaminated globally as a result of manufacturing releases and use of PFAS-containing products.

- Indoor air and dust: When PFAS are used in products such as stain-proofing for furniture and carpets, or waterproofing for clothing, these items release the chemicals over time into air and dust.
- Drinking water: Chemical plants making PFAS, product manufacturing plants, firefighting foam, landfills, and spreading of sludge have led to widespread contamination of drinking water in the U.S. Today, millions of U.S. residents are served by a drinking water source contaminated with PFAS.
- Consumer and workplace products: PFAS use in cleaners, building materials, cosmetics, personal care products, and specialty products such as ski wax can lead to direct exposure from product use.
- Food: PFAS can build up in crops, fish, and livestock, ultimately contaminating the food we eat. In addition, when PFAS are used in food packaging they can migrate to our food.



#### Is everyone exposed equally?

No. While 99% of Americans have PFAS in their bodies, those living near <u>manufacturing plants</u>, <u>military bases and airports</u> have disproportionately higher levels of PFAS.

- An <u>NRDC examination of PFAS contamination in California</u> found that PFAS contamination is more concentrated in areas that are already overburdened by pollution.
- An Agency for Toxic Substances and Disease Registry (ATSDR) <u>study of</u> <u>residents</u> living near a PFAS-contaminated site in Airway Heights, WA found levels of some PFAS up to fifty-six times higher than the national average.
- An <u>analysis</u> of drinking water in New Jersey found that people of color were more likely to have PFAS detected in their drinking water and the <u>Union of</u> <u>Concerned Scientists</u> found that people of color were more likely to live within five miles of a site contaminated with PFAS.

#### Why should we treat PFAS as a class rather than deal with each individually?

Much like families that share DNA, these chemicals share a common trait: chains of carbon surrounded by fluorine that makes them difficult to impossible to break down. The former director of the National Institute of Environmental Sciences, Linda Birnbaum, stated in <u>testimony</u> before Congress that "approaching PFAS as a class for assessing exposure and biological impact is the most prudent approach to protect public health."

In the past, when one chemical has been phased out or banned, industry often moved to a similar chemical in the same class. For example, after bisphenol-A was banned, it was often replaced with <u>bisphenol-S</u> despite similar toxicity profiles.

In 2018, Washington passed the first law that defined PFAS as a class and since then, states have followed suit. Twenty-two states now use the definition first passed in Washington and this definition should be used in all PFAS policies.

In 2015, over 200 scientists signed what is known as the <u>Madrid Statement</u>. In this consensus document, these scientists agreed that we should not be using PFAS in such a widespread manner and that they should be replaced with safer alternatives. In 2020, this sentiment was confirmed in <u>another paper</u> authored by scientists from universities, the U.S. National Institutes of Health, the European Environment Agency, and NGOs.

The paper states that the extreme persistence and known toxicity of PFAS that have been studied render traditional chemical-by-chemical management dangerously inadequate and lays out how businesses and governments can apply a class-based approach to reduce harm from PFAS. Finally, the European Union has proposed a phase-out of ALL uses of PFAS and uses the class-based approach for this phase-out.

#### **Resources on regulating PFAS as a class**

- <u>Scientific Basis for Managing PFAS as a Class</u>
- Linda Birnbaum Interview Re: PFAS Toxicity
- Regulating PFAS as a Class under the CA Safer Consumer Products Program
- To Protect Human Health, PFAS must be Managed as a Class (NRDC factsheet)

### Does the PFAS definition adopted by states include PFAS plastics (sometimes called "polymerics") and why is this important?

Yes, 22 states include PFAS plastics in their definition. PFAS polymers are a type of plastic used in a vast array of products such as smartwatch bands, nonstick pans, and waterproof clothing. The chemical industry has been lobbying states to exempt PFAS polymers because they claim they are different.

However, these plastic compounds have a toxic lifecycle that threatens human and environmental health.

PFAS polymers are made using PFAS chemicals, which are released into the environment when waste enters the air and waterways. In fact, when scientists studied the fate of a commonly used group of toxic PFAS, they estimated that 80% of those chemicals made since the 1950's have been released to the environment from PFAS polymer "manufacture and use."

Certain PFAS polymers release toxic PFAS chemicals during their production and use, including two so-called "climate super pollutants" which are up to 10,800 times more efficient at warming the atmosphere than carbon dioxide. A <u>recent</u> <u>investigation</u> showed that one U.S. chemical manufacturing facility released a potent climate pollutant equivalent to one billion pounds of carbon dioxide in one year.

Exempting PFAS polymers or polymerics will not protect a state's residents or the environment. A fact sheet with more information on PFAS polymers and polymerics can be found <u>here</u>.

### Should states exempt fluorinated gasses including Hydro Fluoro Olefins (HFOs) from PFAS definitions?

No. Twenty-two states include HFOs in their definitions despite efforts by the refrigerant/propellant industry to obtain broad exemptions for these PFAS chemicals. <u>Fluorinated gasses</u> are expected to comprise 59% of the usage of all PFAS over the next 30 years.

Laws in 22 states, as well as the definition adopted by the European Union, are inclusive of HFOs; this includes legislation in California and Washington that specifically address PFAS in cosmetics and laws in Minnesota and Maine that ban all currently avoidable uses of PFAS. HFOs share common concerning traits of other PFAS and should not be excluded from rules aiming to curb PFAS pollution.

Scientists have <u>established that at least some HFOs</u> can transform into trifluoroacetic acid (TFA), which is an ultra-short-chain PFAS. TFA is a potent drinking water contaminant and can cause severe skin burns and eye damage at high levels. When HFOs decompose, these compounds leave behind TFA, which can contaminate drinking and groundwate**r**. Due to its high polarity and low degradability, <u>it is difficult to remove TFA from drinking water</u>. Levels of TFA are increasing in the atmosphere and are measurable in rain.

A <u>recent report</u> by a German Environmental Agency says that HFOs (and HFCs) degrade into TFA and cause toxic groundwater and drinking water contamination and "should be replaced by more sustainable solutions with halogen-free substances" such as natural refrigerants and that "the use of halogenated substitutes with a low global warming potential must be regarded as problematic in view of the persistence of TFA or trifluoroacetate in the environment."

Additionally, the complete replacement of HFCs with HFOs would potentially lead to <u>33 times</u> more TFA worldwide in the atmosphere The increase in TFA would also vary greatly by region, with areas with many vehicle air conditioning systems facing significant TFA increases.

See <u>this report</u> which provides a great overview of "The Rising Threat of HFOs and TFA to Health and the Environment," which was prepared by an industry group promoting natural refrigerants.

Fortunately, HFOs are not the only solution to phasing out HFC refrigerants. See this <u>article</u> which counters the narrative that HFOs are the only option moving forward for refrigerants after the Kigali agreement to phase down HFCs due to their high global warming potential (GWP).

#### What are some climate and justice impacts of PFAS manufacturing?

PFAS production is generating hundreds of thousands of pounds of potent greenhouse gas emissions each year, as detailed in a 2021 report that can be found <u>here</u>. Just one PFAS-producing facility in Alabama reported releasing over 240,000 pounds of the chemical HCFC-22, a potent greenhouse gas and ozone-depleting chemical. The emissions from this facility are the equivalent of driving 125,000 cars.

The chemical HCFC-22 is also released from other PFAS-producing plants in Kentucky and West Virginia. Some PFAS themselves are highly potent greenhouse gasses, including certain HFCs that are now listed for international phaseout under the 2016 amendments to the Montreal Protocol due to their climate warming potential. As the world struggles to fight climate change, the production and use of PFAS is contributing to the acceleration of global warming, in addition to the damage it is causing to human health, water, soil and air quality.

Those working with PFAS are also at <u>high risk</u>. Chemical manufacturing workers, firefighters and those working to manufacture products that have high levels of PFAS like ski wax can be exposed to PFAS that may be different from the general population. The <u>National Academy of Sciences</u>, <u>Engineering and Medicine</u> recommends that those with higher exposure to PFAS including workers exposed to PFAS on the job be tested for PFAS in their blood so that they and their clinicians can better monitor and manage their long-term care.



#### Why should states act?

<u>As more PFAS contamination is uncovered in states across the country, the costs to</u> <u>protect communities from these extremely persistent chemicals are skyrocketing.</u>

States and taxpayers didn't cause the contamination, but they are largely shouldering the burden of testing and monitoring, delivering clean water to communities, cleaning up contaminated sites, and covering health care costs.

PFAS pollution has become a crisis in this country. It will take bold action from all levels of government to address this crisis. The federal government is not doing nearly enough to solve this issue. Moreover, states are well-positioned to regulate the entire class of PFAS in products and set the stage for safer alternatives across the entire marketplace. States have been leading the way in this effort for the last five years and momentum is only growing. Because of state pressure, many businesses have responded and removed PFAS from their products. Now is the time to keep up the pressure on PFAS and turn off the tap once and for all!

#### What has been done to regulate PFAS?

**State Product Restrictions:** States have been taking the lead on regulating PFAS. All of the policies listed below can be found on Safer States' <u>bill tracker</u> under "Adopted Policies" for each state. For a comprehensive list of state policies passed, see the <u>Safer States Momentum Fact Sheet</u>.

**Broad policies:** Maine and Minnesota have enacted laws to require disclosure of PFAS in all consumer products and a ban on PFAS in all products by 2030 and 2032 respectively unless alternatives are currently unavailable and the use is necessary for public health or the functioning of society. In 2022 Washington state expanded its Safer Products law allowing its environmental agency to regulate PFAS and other classes of chemicals in products and packaging. Colorado also adopted restrictions on PFAS in 9 target sectors in 2022 including bans on PFAS in oil and gas operations.

**Food packaging and cookware:** Twelve states have adopted bans on PFAS in food packaging. California, Colorado, Maryland, New York, Washington and Hawaii ban PFAS in paper-based food packaging while Maine, Minnesota, Oregon, Rhode Island, Connecticut and Vermont ban PFAS from all food packaging. Maine and Vermont's policies include restrictions on other chemicals of concern such as phthalates and bisphenols. Minnesota bans the use of PFAS in cookware and California and Colorado have passed laws that include requirements for labeling PFAS in cookware.

*Firefighting Foam:* <u>Twelve states</u> have banned the use of PFAS in firefighting foam while <u>eight states</u> require labeling in firefighter turnout gear.

*Textiles:* <u>Four states</u> have banned PFAS in some or all textiles with California and New York banning PFAS in apparel.

**Cosmetics:** <u>Six states</u> have banned PFAS in cosmetics. In 2023, <u>Washington</u> and <u>Oregon</u> passed comprehensive cosmetics policies that banned PFAS and other harmful chemicals from cosmetics.

**Other products:** Vermont and Minnesota have banned PFAS in ski wax and four states have banned PFAS in juvenile products. California also has a law that does not allow the use of PFAS in any product marketed as or claiming to be "<u>recyclable</u>" or "<u>compostable</u>."

*Medical Monitoring:* In 2022, Vermont passed <u>groundbreaking legislation</u> allowing individuals who have been exposed to toxic chemicals, including PFAS, to sue manufacturers to pay for health monitoring costs. The monitoring would allow for tests and procedures to be regularly conducted to detect latent diseases or other health impacts.

**State Water Restrictions:** <u>Twenty-five states</u> are adopting water quality standards regulating PFAS in drinking water, surface water and groundwater. Some states like <u>Vermont</u> and <u>New Hampshire</u> are adopting these standards through legislation while others are adopting standards through their regulatory process. For a more thorough rundown of adopted and proposed state drinking water standards, visit the <u>Association of State Drinking Water Administrators</u> site on PFAS.

*State Disposal Restrictions:* In 2022 <u>Illinois banned certain PFAS incineration</u>. In 2020 <u>New York banned the incineration of PFAS in one town</u>.

**Attorney General actions:** More than half of all US State Attorneys General have taken action to hold polluters accountable for PFAS pollution.

**Federal Restrictions:** In October 2021 the Environmental Protection Agency announced its "<u>PFAS Roadmap</u>" which includes commitments for adding the two most well-known PFAS to the nation's list of Superfund chemicals while also setting a timeline to set enforceable drinking water limits as well as setting a risk assessment for PFAS in sludge. In 2022, the EPA began the process for both adding PFOA and PFOS to the Superfund list and for drinking water standards. In 2023, the EPA proposed new drinking water rules for six additional PFAS. The National Defense Authorization Act (NDAA) has been used to legislate on much needed PFAS policies including restrictions on PFAS in firefighting foam, requirements for adding certain <u>PFAS to the Toxic Release Inventory list</u>, requirements for PFAS clean-up at DOD sites and requirements for reporting on PFAS destruction technologies. The bipartisan infrastructure law has \$10 billion in funding allocated to clean up PFAS-contaminated water.

#### EPA's 2023 Health Advisories: In 2023, the EPA announced drinking water

<u>standards</u> for six individual PFAS including PFOA, PFOS, PFNA, PFHxS, HFPO-DA (GenX), and PFBS. This is the first time that drinking water standards have been proposed for a new chemical under the Safe Drinking Water Act since it was updated in 1996. The newly proposed drinking water standards are:

4 parts per trillion for PFOA 4 parts per trillion for PFOS A standard based on the hazard of a mixture of four additional PFAS chemicals: PFNA, PFHxS, PFBS, and HFPO-DA (commonly known as Gen X)

The proposed new drinking water standards follow a 2022 announcement of lifetime health advisories for four PFAS (per- and polyfluoroalkyl substances).

**International Restrictions:** The European Commission has proposed a broad ban of all PFAS. Under this proposal, most PFAS would be banned in 18 months while allowing a small number of unique product bans to be phased in over 5-12 years. <u>China</u> has banned the use of two PFAS chemicals and is setting targets to minimize the use of PFAS as a class.

*Marketplace:* Retailers and manufacturers have taken broad actions to eliminate PFAS from their products and stores thanks to concerted advocacy efforts of organizations like <u>Mind the Store</u> (a program of <u>Toxic-Free Future</u>), <u>Natural</u> <u>Resources Defense Council</u>, <u>Green Science Policy Institute</u>, <u>Center for</u> <u>Environmental Health</u> and due to ongoing <u>state regulation</u>.

 Food packaging: Grocery chains including <u>Albertsons</u>, <u>Amazon</u>, <u>Whole Foods</u>, <u>Trader Joes</u>, and <u>Ahold Delhaize</u> (owner of grocery chains Food Lion, Giant, Stop&Shop, and Hannaford's), have all committed to eliminating PFAS from food packaging in their stores. A number of restaurants including <u>Panera</u>, <u>Taco</u> <u>Bell</u>, <u>Sweetgreens</u>, <u>Burger King</u>, <u>Wendy's</u> and <u>Chipotle</u> have all committed to removing PFAS from their food packaging. As of November 2023, <u>22 retailers</u> selling food or food packaging have announced steps to reduce or eliminate PFAS in food packaging at their more than 77,000 stores.

- Textiles: <u>Home Depot</u> and <u>Lowe's</u> have announced their commitment to remove PFAS from carpeting sold in their stores. Lowe's has also banned PFAS in fabric protector spray. And <u>Staples</u> has announced a new chemical policy to eliminate several chemicals, including PFAS, from stores as has <u>Office Depot</u>. <u>Ikea</u> also banned PFAS from all textiles in 2016.
- Apparel: Clothing companies like Levi's, Victoria's Secret and H&M have banned PFAS in apparel. Some big outdoor brands like Jack Wolfskin have as well, and some retailers like Target are in the process of implementing their commitments. In 2021 Polartec announced it would eliminate PFAS from its Durable Water Repellent (DWR) treatments. In 2023, <u>REI</u> announced their commitment to banning PFAS from all textiles in their stores by 2024 and <u>Patagonia</u> introduced jackets without PFAS and announced all DWR would be PFAS-free by 2025.
- Compost Certifications: Compost certification bodies such as the <u>Biodegradable Products Institute</u> and the <u>Compost Manufacturers Alliance</u> have adopted certification criteria banning the use of PFAS in any product that they certify as compostable. As a result of this and state policy mandates, manufacturers of compostable foodware are moving away from PFAS. In 2021, <u>California</u> also passed a bill prohibiting any product from claiming it is "compostable" if it contains PFAS.

#### USING THE MODEL POLICIES

The model policies presented in this toolkit can be used as stand-alone bills or be incorporated into a larger and more comprehensive policy. Several states have passed restrictions on PFAS in various consumer products and some states, like Maine and Washington, have gone further and given their agencies authority to ban PFAS from all products. Model policies for 2024 build off of the successes of 2023.

Below are some resources to make the case for PFAS restrictions that are not specific to a target sector.

#### Business arguments in support of regulating PFAS products

American Sustainable Business Council's Case for Removing PFAS from
 <u>Products</u>

#### **General Information on PFAS**

- <u>University of Washington. Indiana University & Toxic-Free Future's Peer-</u> <u>Reviewed Study on PFAS in Breastmilk</u>
- <u>Short video</u> featuring Dr. Sathyanarayana, Pediatrician, University of Washington
- Green Science Policy Institute Myths and Facts About PFAS
- PFAS Toxicity Database
- <u>Toxic-Free Future PFAS Overview</u>
- <u>An Overview of PFAS Uses</u>
- Map Documenting the Extent of PFAS Contamination in the US

#### Case for regulating PFAS as a class

- <u>Scientific Basis for Managing PFAS as a Class</u>
- Linda Birnbaum Interview Re: PFAS Toxicity
- To Protect Human Health. PFAS must be Managed as a Class (NRDC factsheet).

#### Broad ongoing series on dangers of PFAS

• The Intercept Series on PFAS

#### **Cost of Pollution to Taxpayers**

- NY Times Article on How Chemical Industry Avoids Paying for Pollution
- <u>Safer States and Toxic-Free Future's Make Them Pay website, which makes the</u> <u>case for why polluters must pay to clean up PFAS</u>

#### GENERAL LEGISLATIVE LANGUAGE GUIDELINES ON PFAS

<u>Safer States' 2024 Model PFAS Legislation</u> includes language based on existing state precedents.

When sponsoring or advocating for legislation regulating PFAS, it is important to pay attention to a few key provisions to ensure proper regulation of PFAS as well as to avoid setting bad precedents for other states.

**Regulate all PFAS as a class and define them according to scientific guidelines and policy precedence.** The definition of PFAS in the model legislation is the definition that is most comprehensive and has been used to successfully regulate PFAS in 22 states. The PFAS industry as well as product manufacturers will try to split off certain types of PFAS claiming that they are inert or not harmful. It is critical that your legislation not exempt certain types of PFAS like polymers, fluorotelomers or fluoro-gasses.

**Avoid Incineration.** Do not allow for PFAS to be incinerated in your state or allow for it to be shipped to other states for incineration. Incinerating PFAS does not eliminate it. The carbon-fluorine bonds that are the backbone of all PFAS are among the strongest in any engineered compound and are highly resistant to destruction. Existing incinerators designed to treat other common hazardous wastes have not been shown to eliminate PFAS. Instead, incomplete incineration could emit PFAS, potent greenhouse gasses or other acutely toxic gasses into the atmosphere which fall onto nearby communities. For more information on the dangers of PFAS incineration, see the Sierra Club fact sheet on incineration <u>here</u>.

**Intentionally added PFAS.** Many states have had to use a definition of "intentionally added PFAS" that would not include any PFAS in a product due to contamination from manufacturing equipment or processes. States are encouraged to use an expanded definition that would include PFAS in a product due to contamination from manufacturing equipment or processes. The definition in the model bill reads:

"Intentionally added PFAS" means: PFAS that a manufacturer has intentionally added to a product, a product's components, product's ingredients, or a product's manufacturing process, and that have a functional or technical effect in the product, the product's components, the product's ingredients, or in the product's manufacturing process.

"Intentionally added PFAS" also includes the PFAS components of intentionally added chemicals and PFAS that are intentional breakdown products of an added chemical that also have a functional or technical effect in the product, the product's components, the product's ingredients, or in the product's manufacturing process.

There is precedence for such language. Rhode Island's 2022 law banning PFAS in food packaging captured contaminants from manufacturing using the following clause:

The use of [PFAS]I as a processing agent, mold release agent or intermediate is considered an intentional introduction for the purposes of this chapter where [PFAS] is detected in the final package or packaging component.

### PFAS IN PRODUCTS

Several States have had success eliminating PFAS from several product categories. The <u>2024 Model PFAS legislation</u> takes this approach by banning PFAS from the following product categories:

• Ski wax

• Artificial Turf

Menstrual Products

- Textile articles
- Cookware
- Cleaning products
- Food Packaging
- Carpets or Rugs
- Juvenile Products
- Cosmetics
- Oil and Gas Products
- Additionally, the model provides policy language for instituting comprehensive PFAS programs like those passed in Minnesota and Maine. However, it is critical that states pursuing comprehensive policies like those listed in the model have a state agency that is willing to do this work. The agency should have the necessary capacity and knowledge to regulate on the basis of hazard and should also have the appropriate funding to carry out this work. In addition, it will require a sustained effort on the part of legislators and advocates to ensure proper implementation.

The following sections will provide resources for each product category.

### PFAS IN TEXTILES: APPAREL, RUGS, CARPETS, UPHOLSTERY, TEXTILE FURNISHINGS AND AFTERMARKET TREATMENTS

**Context:** There is increasing pressure for all textile manufacturers to stop using PFAS in their products, but more state action is needed. PFAS are used in a wide range of textiles, including apparel, outdoor gear, accessories, handbags, backpacks, draperies, shower curtains, furnishings, upholstery, beddings, towels, napkins, tablecloths, carpets, rugs, aftermarket textile treatments, firefighter PPE, and <u>uniforms</u>. While state legislation and corporate pressure campaigns have forced much of the carpet and rug industry to move away from PFAS, the chemicals are still being widely used in many other kinds of textiles, with apparel, upholstery, outdoor gear and textile furnishings being particularly important targets. Aftermarket textile treatments also remain key legislative targets given that the California Department of Toxic Substances Control has found <u>that aftermarket</u> treatments are <u>"significant sources of human and ecological PFAS exposures,"</u>

**State action:** In 2022, California passed <u>AB 1817</u> which banned the intentional use of PFAS in almost all textile articles and placed a limit on the amount of PFAS that can be found in any of these textiles to address the issue of unintentionally added PFAS. In 2022 <u>Colorado</u> also passed a comprehensive PFAS bill that included a ban on PFAS in carpets, rugs, fabric treatments, juvenile products, textile furnishings and upholstered furniture. In 2021, <u>Vermont</u> and <u>Maine</u> banned the use of PFAS in carpets, rugs and aftermarket treatments, and Maryland passed similar legislation in 2022. Under its Safer Products for Washington Act, Washington is also working on restrictions on PFAS for carpets, rugs, aftermarket treatments, and leather and textile furnishings California has officially declared carpets, rugs and fabric treatments containing PFAS as <u>priority products</u> under their Safer Consumer Products Act.

**Model Policy:** Safer States has created a model policy for textiles which includes many different product categories and can be found <u>here</u>.

#### **Policy Elements**

Any bill addressing PFAS in textiles MUST contain:

- Provisions that regulate PFAS as a class. Avoid any distinctions between longchained PFAS and short-chained PFAS or singling out certain types of PFAS (i.e. polymers or telomers).
- A ban on PFAS in all carpets used in residential settings.
- Language banning the use of PFAS in aftermarket treatments in residential settings.

Any bill addressing PFAS in textiles SHOULD contain:

- A ban on PFAS in commercial carpets.
- Language banning the use of PFAS in aftermarket treatments used in commercial settings.
- Language banning the entire class of PFAS in leather and textile furnishings (including upholstered furniture, draperies and other textile items).
- Language banning the entire class of PFAS from apparel, outdoor gear, handbags and accessories.
- Language limiting the amount of unintentionally added PFAS that can be present in textile articles.

Any bill addressing PFAS in textiles, rugs, carpets, upholstery and aftermarket treatments SHOULD NOT contain:

- More exemptions for specific subcategories of textiles than are contained in California's AB 1817 law
- Higher limits for unintentionally added PFAS than is found in California's AB 1817 law.

A note about thresholds: California's recent textiles law banning PFAS set a stepped-down approach to thresholds for PFAS as follows:

100 parts per billion in 2025

50 parts per billion starting in 2027

This approach can and should be followed if it is necessary to include reporting thresholds. The stepped-down approach accommodates the ever-changing lab capacity to measure PFAS as well as the need to move beyond California's initial precedent of a 100 ppb threshold set in food packaging. If it is possible not to set a threshold for PFAS, it is recommended not to have one but if one is required, this is the preferred approach.

#### Resources for Rugs, Carpets, Aftermarket Treatment and Furnishings Legislation

- <u>TFF sign-on letter to WA Department of Ecology asking for PFAS in apparel to</u> <u>be prioritized under the Safer Products law</u>
- <u>A list of manufacturers who have removed PFAS from their clothing products</u> <u>Statement from VF Corporation (owner of multiple brands including North</u> <u>Face and Timberland) announcing plans to remove PFAS from products</u>
- Letter to CEO to REI asking for phaseout of PFAS in clothing sold at REI
- NRDC Blog outlining problems with PFAS in apparel
- NRDC memorandum of support for New York apparel legislation
- Just Green partnership memorandum of support for New York apparel legislation
- Parson's School guide on healthier textiles
- <u>Washington State Department of Ecology report to legislature detailing</u> rationale for prioritizing PFAS in carpets, aftermarket treatments and textile furnishings in the Safer Products Program
- <u>California Product-Chemical Profile PFASs in Carpets and Rugs Global Alliance</u> for Incinerator Alternatives comments on the proposed listing of PFAS in carpets as a priority product under California's Safer Consumer Products <u>Program</u>
- <u>Environmental Working Group's comments on the proposed listing of PFAS in</u> <u>carpets as a priority product under California's Safer Consumer Products</u> <u>Program</u>
- Joint NGO sign-on letter in support of the proposed listing of PFAS in carpets as a priority product under California's Safer Consumer Products Program
- San Francisco Department of Environment comments on DTSC Proposed
  Listing of Carpets and Rugs Containing PFAS as a Priority Product
- <u>California Product-Chemical Profile on PFAS carpet and textile treatments</u>
- Joint NGO comments on the Safer Consumer Products Product-Chemical
  Profile for PFAS carpet and textile treatments
- <u>California Association of Sanitation Agencies letter in support of regulating</u>
  <u>PFAS-containing textile treatments</u>
- Dr. Gina Solomon comments on the acute respiratory toxicity of waterproofing sprays that contain fluoro-telomers: use has resulted in hospitalizations and chronic disability
- <u>Green Science Policy Institute has lists of products that are PFAS-free</u>, including some textiles, carpets, and furniture
- Study: carpets are a significant source of PFAS exposure for children
- Maine Fact Sheet on Carpets and Upholstery treatments that don't use PFAS

### PFAS IN CLEANING PRODUCTS

**Context:** PFAS are commonly used <u>floor waxes</u>, but can also be found in other types of cleaning products as well. Most consumers wouldn't know if PFAS were in their cleaning products due to lax regulations on ingredient disclosure in cleaning products. While New York and California have made strides in ingredient disclosed to consumers.

It is particularly important to remove PFAS from cleaning products since they are used on every surface of living and working spaces. <u>Babies and toddlers are</u> <u>uniquely susceptible</u> to PFAS in floor polishes and waxes since they spend much of their lives on the floor and frequently put their hands (and everything else) in their mouths as a way to explore the environment around them.

**State Action:** No state has banned the use of PFAS in cleaning products however, the tide is beginning to turn.

<u>California</u> and <u>New York</u> have laws requiring ingredient disclosure in cleaning products that will begin to shed light on what is used although, as mentioned above, PFAS may not show up on all labels.

Green Seal, a certification standard for sustainable products, has <u>recently</u> <u>prohibited PFAS in cleaning products</u> seeking Green Seal certification.

**Model Policy:** Safer States' model bill addresses PFAS in cleaning products and can be found <u>here</u>.

#### **Policy Elements**

Any bill addressing PFAS in cleaning products MUST contain:

• Provisions that regulate PFAS as a class. Avoid any distinctions between longchained PFAS and short-chained PFAS or singling out certain types of PFAS (i.e. polymers or telomers).

Any bill addressing PFAS in cleaning products SHOULD contain:

• A ban on PFAS in industrial cleaners

Any bill addressing PFAS in cleaning products SHOULD NOT contain:

- Exemptions for certain types of cleaning products
- Exemptions for certain types of PFAS (i.e. polymers or polymerics)

### PFAS IN OIL AND GAS PRODUCTS

**Context:** A <u>recent report</u> from Physicians for Social Responsibility showed that oil companies are using chemicals that degrade into PFAS in hydraulic fracturing (fracking) in over 1200 wells across the country. The names and identities of most of the chemicals used in fracking and other drilling operations are not disclosed to the public and state regulators, even to well operators themselves. Many of these oil and gas sites go on to <u>become Superfund clean-up sites</u>, leading to <u>groundwater contamination</u> and, in some cases, <u>well water pollution</u>.

While the American Petroleum Association claims that they do not use PFAS in fracking, the EPA <u>approved a request</u> to use PFAS in fracking operations in 2011, despite stating internal concerns with using these chemicals in fracking.

**State Action:** In 2022, Colorado became the first state in the nation to <u>ban the use</u> of PFAS in oil and gas operations. Additionally, Colorado passed a measure requiring disclosure of all chemicals used in oil and gas operations which requires certification that PFAS are not used in these operations.

**Model Policy:** Safer States' model bill addresses PFAS in oil and gas and can be found <u>here</u>.

#### **Policy Elements**

Any bill addressing PFAS in oil and gas MUST contain:

• Provisions that regulate PFAS as a class. Avoid any distinctions between longchained PFAS and short-chained PFAS or singling out certain types of PFAS (i.e. polymers or telomers).

Any bill addressing PFAS in oil and gas SHOULD NOT contain:

• Exemptions for certain types of PFAS (i.e. polymers or polymerics)

- Physicians for Social Responsibility Report
- Denver Post Editorial
- FracTracker Maps of PFAS used in fracking
- NRDC Fracking 101
- NY Times Report on PFAS in Fracking

### PFAS IN COOKWARE

**Context:** When Teflon cookware first entered the market in 1961, consumers marveled at their ability to cook with easy-to-clean non-stick pans. But decades after these pans hit the market, scientists confirmed that the chemicals used to make the pans, PFAS and PTFE which degrades into PFAS, were harming consumer health. A <u>recent report by the Ecology Center</u> showed that nearly 80% of all cookware still contains harmful PFAS chemicals. When cooked at high heat, these <u>chemicals are released from cookware</u> and into the air, creating a harmful gas.

Alternatives are on the market and widely available. Stainless steel and cast iron pans do not contain PFAS. However, many non-stick pans claim to be safe using the label "PFOA free." While these pans may be free from one kind of PFAS, thousands of other PFAS chemicals could <u>be in that product</u>.

**State Action:** <u>California passed a law</u> prohibiting manufacturers from labeling cookware as "PFOA free" if it contains other PFAS. This law takes effect in 2023. In 2022, <u>Colorado</u> passed a measure requiring cookware containing PFAS to be labeled as such.

**Model Policy:** Safer States' model policy builds on these previous precedents and prohibits the use of PFAS in cookware. It can be found <u>here</u>.

#### **Policy Elements**

At a minimum, states should require labeling of cookware similar to the recent law in Colorado. However, since PFAS shouldn't be in cookware, the Safer model bans the use of PFAS in cookware but extends the implementation date to give manufacturers time to comply. This date can be extended if necessary and could be coupled with a labeling requirement before the ban takes full effect. Any bill addressing PFAS in cookware MUST contain:

• Provisions that regulate PFAS as a class. Avoid any distinctions between longchained PFAS and short-chained PFAS or singling out certain types of PFAS (i.e. polymers or telomers). This is particularly important for cookware since the type of PFAS used in non-stick coating is a polymer.

Any bill addressing PFAS in cookware SHOULD NOT contain:

• Exemptions for certain types of PFAS (i.e. polymers or polymerics)

- <u>Ecology Center Report on Cookware</u>
- Factsheet on California labeling bill
- <u>Consumer Reports Article on PFAS in Cookware</u>

### **PFAS IN COSMETICS**

**Context:** PFAS are used in personal care and beauty products to create longlasting, colorfast pigments; to make products like eye-liner or mascara waterproof, or make more hair care products slippery, smooth or frizz-free. PFAS are also used by ingredient, transport and packaging suppliers to coat the vats that cosmetic ingredients are shipped in, fluorinate packaging and clean machinery.

Researchers at the <u>University of Notre Dame</u> tested 231 cosmetics for PFAS in 2021. More than half the personal care products contained PFAS, and most products tested did not list any PFAS compounds on their ingredient labels, suggesting that the PFAS were contaminants and not intentionally added ingredients. The study found that more than three-quarters of waterproof mascara, nearly two-thirds of foundations and liquid lipsticks and more than half of eye and lip products had high fluorine concentrations, indicating the likely presence of PFAS. In many of these products, PFAS is missing from the product label but it is unclear if it is because manufacturers chose not to disclose them or if background contamination is responsible for the PFAS detected in the products studied, finding their way into the cosmetics from air, water, machinery, packaging or other sources.

Manufacturers can legally use PFAS and a wide array of other toxic chemicals to formulate beauty and personal care products because the federal law that governs cosmetic safety is badly broken. There are only 2 pages of federal law cosmetic safety law that has not been updated in over 80 years, despite a growing and vocal movement that has been demanding change. Under current federal law, companies can use virtually any raw material to formulate a cosmetic product without Food and Drug Administration (FDA) pre-market safety testing or review. Additionally, the FDA cannot issue a mandatory recall of cosmetic products, even if a product has generated thousands of complaints from consumers and direct harm from the use of the product has been established. The Campaign for Safe Cosmetics has resources and background information about the problem of toxic chemicals in cosmetics. Visit their website <u>here</u>.

**State action**: <u>Six states</u> have banned PFAS in cosmetics. In 2023, <u>Washington</u> and <u>Oregon</u> passed comprehensive cosmetics policies that banned PFAS and other harmful chemicals from cosmetics.

**Model Policy**: Safer States' has created model legislation for states wanting to ban the entire class of PFAS chemicals from beauty and personal care products sold in their state. It can be found <u>here</u>.

#### **Policy Elements**

A bill addressing PFAS in cosmetics MUST include:

• Provisions that regulate PFAS as a class. Avoid any distinctions between longchained PFAS and short-chained PFAS or singling out certain types of PFAS (i.e. polymers or telomers).

A bill for addressing PFAS in cosmetics MUST NOT include:

- Provisions that allow for certain types of PFAS while banning others.
- Provisions that exempt fragrance or flavorings.
- Exemptions for HFOs (hydrofluoroolefins), which are in the PFAS class, and used as propellants in certain cosmetics and personal care products. The Household and Commercial Products Association (HCPA) unsuccessfully sought an exemption from the California PFAS ban.

- Healthline article on PFAS in cosmetics
- <u>Campaign for Safe Cosmetics webpage</u>
- <u>Press release on federal legislation banning PFAS from cosmetics</u>
- Fact sheet on the lack of FDA regulation of cosmetic safety

### **PFAS IN SKI WAX**

**Context:** PFAS are added to wax to decrease resistance to water and dirt as well as to increase speeds, particularly in Nordic skiing races. Of the water systems tested in Vermont, several that came back with <u>high levels of PFAS</u> are near ski resorts.

<u>Research</u> shows PFAS can be found in the soil underneath ski tracks once the snow has melted, and a <u>study</u> in Maine published in December 2020 showed PFAS from ski wax attaches to snow and contaminates the soil and groundwater beneath it.

There is also a direct threat to human health. A 2010 <u>Scandinavian study</u> showed that World Cup ski technicians had on average 45 times as many fluorocarbons in their blood as nonskiers. Fortunately, ski associations have recognized this threat to their community and have <u>started moving away from PFAS</u>. The International Federation of Skiing, the governing body that organizes the Nordic Skiing World Cup, as well as the U.S. Ski and Snowboard and Canadian Nordic Ski Associations, have banned PFAS in wax. And many Nordic ski leagues in the U.S. and Europe ban the wax.

In the last few years, there has been movement in the market as well. The major ski brand, <u>Swix</u>, and its subsidiary, Toko, are moving away from selling PFAScontaining wax. There's a burgeoning market for environmentally friendly and/or PFAS-free wax. The <u>U.S. Ski & Snowboard Association</u> lists at least 10 different PFASfree waxes on their website for supply. Despite the positive movement by ski associations and brands, as long as these products are on store shelves, they will be purchased and used – potentially by those hoping to cheat the rules of the ban, or by those who are simply unaware of the danger of this wax. Banning it is the only way to ensure it doesn't continue to put human and environmental health at risk. **State Action:** In 2021, <u>Vermont</u> became the first state in the nation to ban the use of PFAS in ski wax and Minnesota's 2023 bill followed suit. The model legislation found <u>here</u> is based on Vermont's law.

#### **Policy Elements**

A bill addressing PFAS in ski wax MUST include:

• Provisions that regulate PFAS as a class. Avoid any distinctions between longchained PFAS and short-chained PFAS or singling out certain types of PFAS (i.e. polymers or telomers)

- International Federation of Skiing Statement on PFAS ban in waxes
- US Ski and Snowboard and Canadian Nordic Ski Association statement on PFAS ban in waxes
- Vermont law banning the use of PFAS in ski wax

### **PFAS IN MENSTRUAL PRODUCTS**

**Context:** Testing of menstrual products has demonstrated that <u>PFAS can be found</u> in all types of menstrual products including underwear, tampons, pads and cups. The presence of PFAS in these types of products is concerning given the highly sensitive tissue that these products touch. It should be noted that PFAS are NOT the only chemical that is concerning in period products. <u>Women's Voices for the</u> <u>Earth</u> has information, reports and fact sheets on the chemicals used in menstrual products and policies should address all problematic chemicals in these products.

**State Action:** <u>Minnesota's</u> groundbreaking 2023 law was the first to ban the use of PFAS in menstrual products. In 2019, <u>New York</u> passed a law requiring disclosure of ingredients in menstrual products.

**Model Policy:** Safer States has created a model policy banning PFAS from menstrual products based on Minnesota's law. It can be found <u>here</u>.

#### **Policy Elements**

A bill addressing PFAS in menstrual products MUST include:

• Provisions that regulate PFAS as a class. Avoid any distinctions between longchained PFAS and short-chained PFAS or singling out certain types of PFAS (i.e. polymers or telomers).

A bill addressing PFAS in menstrual products SHOULD include:

- Additional bans on other problematic chemicals in menstrual products.
- Disclosure to consumers on the chemicals used in menstrual products.

- <u>Time Magazine Article on PFAS in Menstrual Products</u>
- <u>Women's Voices for the Earth Toolkit on Menstruation Products</u>
- <u>NY Times Article on PFAS in Period Underwear</u>

### PFAS IN ARTIFICIAL TURF

**Context:** Artificial Turf contains <u>several problematic chemicals</u> including plasticizers, flame retardants and PFAS. Research by the <u>National Toxicology</u> <u>Program</u> shows that high heat can cause chemicals to leach out of the crumb rubber base of synthetic turf, which is made of recycled tires. These leached chemicals are known to cause cell death in humans.

Synthetic turf, like other artificial surfaces including asphalt and pavement, heats up by several degrees more than living lawns.

**State Action:** <u>New York</u> is the only state with a PFAS ban on artificial turf, although the California legislature overwhelmingly passed a similar ban last year only for it to be vetoed due to concerns around proper implementation.

**Model Policy:** Safer States has created a model policy banning PFAS from artificial turf. It can be found <u>here</u>.

#### **Policy Elements**

A bill addressing PFAS in artificial turf MUST include:

• Provisions that regulate PFAS as a class. Avoid any distinctions between longchained PFAS and short-chained PFAS or singling out certain types of PFAS (i.e. polymers or telomers).

A bill addressing PFAS in artificial SHOULD include:

- Additional bans on other problematic chemicals in artificial turf.
- Disclosure to consumers on the chemicals used in artificial turf.

- <u>Safe and Healthy Playing Fields Information on Turf</u>
- <u>Center for Environmental Health Information on PFAS in Turf</u>
- Toxic Use Reduction Institute Fact Sheet on PFAS in Turf

### **PFAS IN JUVENILE PRODUCTS**

**Context:** Much attention has been given to PFAS in firefighting foam, carpets and food packaging but PFAS are also used in bibs, nursing pillows and other products intended for children. There is also data showing that PFAS are especially harmful for children including new information on PFAS being linked to <u>endocrine</u> <u>disruption</u> and interference with <u>vaccines</u>.

**State Action:** In 2021, the state of <u>California</u> banned the use of PFAS in juvenile products. In 2022, <u>Colorado</u> passed a comprehensive PFAS bill with similar language and in 2023, <u>Minnesota's bill followed suit</u>.

**Model Policy:** Safer States has created a model policy banning PFAS from juvenile products based on California's law. It can be found <u>here</u>.

#### **Policy Elements**

A bill addressing PFAS in juvenile products MUST include:

• Provisions that regulate PFAS as a class. Avoid any distinctions between longchained PFAS and short-chained PFAS or singling out certain types of PFAS (i.e. polymers or telomers).

A bill addressing PFAS in juvenile products SHOULD include:

• Exemptions for electronics and medical devices.

- <u>Report on PFAS in Baby Bibs</u> <u>Report on PFAS in Car Seats</u>
- <u>Report on PFAS in mattresses and coverings Study on PFAS in Car Seats</u>
- Epidemiological study of impacts on PFAS in Children
- <u>Press release on California juvenile products ban NIEHS podcast on PFAS and children's health</u>
- New York Times article on PFAS effects on pregnant women and children

### PFAS IN FOOD PACKAGING

**Context:** A 2017 <u>study</u> found grease-proof PFAS coatings on 46% of food-contact papers (such as hamburger wrappers) and 20% of paperboard samples (such as french fry boxes) collected from fast food restaurants throughout the United States. A <u>2023 study</u> found PFAS in plastic packaging, including some food packaging. There is significant movement in the market and at the state level to move away from PFAS in food packaging (see above), but in order for the unnecessary and dangerous use of PFAS to end, more policies at the state level are needed, particularly policies that address PFAS in all packaging including plastic packaging, not just paper packaging.

**Model Policy:** Safer States has created a model policy to address PFAS in food packaging. It can be found <u>here</u>.

#### **Policy Elements**

A bill addressing PFAS in food packaging MUST include:

- A ban on the entire class of PFAS in food packaging. Twelve states have passed bans on the entire class of PFAS in food packaging.
- A ban on PFAS in all food packaging, including plastic packaging. Six states including Maine, Minnesota, Oregon, Rhode Island, Connecticut and Vermont ban PFAS from all food packaging.

Any bill addressing chemicals in food packaging SHOULD NOT include:

- Bans on individual PFAS. Regulating chemicals one at a time is an ineffective and problematic approach to protecting public health.
- Bans on only paper-based packaging

- Food Additives and Children's Health Article in Pediatrics
- <u>Comments to Toxic in Packaging Clearinghouse from industry opposing</u> inclusion of phthalates and PFAS in model legislation ban

- <u>TFF fact sheet on PFAS-free alternatives</u>
- <u>CEH Food Packaging Resources</u>
- <u>CEH Purchaser's Guide to Safer Foodware</u>
- <u>American Sustainable Business Council's Case for Removing PFAS from</u>
  <u>Products</u>
- <u>Biodegradable Products Institute PFAS Policy California</u>
- <u>California Food Packaging Fact Sheet</u>
- <u>Food Packaging Forum Information on PFAS</u>
- Green Science Policy Institute Myths and Facts About PFAS
- The Intercept Series on PFAS
- Linda Birnbaum Interview Re: PFAS Toxicity
- Paper Mills as a Source of PFAS Contamination PFAS as part of Compost
- PFAS In Food Packaging Report
- PFAS in Cookware Report
- <u>Safer States' Guide to PFAS and COVID-19</u>
- <u>Scientific Basis for Managing PFAS As A Class</u>
- To Protect Human Health, PFAS must be Managed as a Class (NRDC factsheet)

#### FAQs on Food Packaging Legislation

#### Won't the FDA take care of the issue of chemicals in food packaging?

If history is any indication, it is unlikely. Given the current regulations governing food packaging and food contact materials, it is unlikely that the Food and Drug Administration will move to ban PFAS as a class. These regulations are outdated and lack the modern scientific rigor necessary to adequately protect the public from harmful chemicals.

#### How are chemicals regulated by the FDA?

There are two main ways that chemicals have been approved for use by the FDA. When the agency was first given authority to regulate chemicals in food contact materials in 1958, a huge <u>loophole</u> was created whereby manufacturers of chemicals could self-certify that ingredients' uses were safe. These chemicals were regarded as "<u>Generally Recognized as Safe</u>" or GRAS. The GRAS exemption was designed for common food ingredients like vinegar or vegetable oils but quickly <u>morphed into the loophole that has allowed untested ingredients and ingredients</u> <u>known to cause harm to be used in food and food packaging.</u> The law was updated in the late 1990s under the Food Contact Notification Program (FCN). Most of the PFAS used in food packaging have been approved using this new regulatory framework. Under this program, the manufacturer must submit information about a particular chemical, including a safety determination, after which the FDA has 120 days to review the material and respond. If there is no response, the company may start using the chemical, even if the FDA has not completed its review. In addition, the FCN program defines safety as "reasonable certainty of no harm in the minds of competent scientists." It does not state threshold levels for carcinogenicity or reproductive toxicity. It does not require studies looking at organ damage, bioaccumulation, persistence, endocrine disruption or a number of other health effects other than carcinogenicity or reproductive toxicity. Finally, the entire process is closed to the public. There is no public review and comment period and the studies submitted to FDA are not public. All of the studies are produced by chemical manufacturers who have a vested interest in FDA approval and they can select what to submit and what to hold back. The entire program is riddled with potential for abuse due to conflicts of interest. When food packaging manufacturers state that they follow all regulations, that may be true, but the regulations themselves are lax and do not adequately protect public health.

Moreover, the FDA has a long history of taking no action on harmful chemicals until individuals, organizations, states or market pressure forces them off the market. For example, the FDA had evidence of harm of two PFAS chemicals (PFOA and PFOS) for years and did nothing. It was only after industry stopped manufacturing PFOA and PFOS after mounting public pressure did <u>FDA</u> finally enter into agreements with manufacturers to stop the use of these two chemicals.

Additionally, <u>three separate petitions</u> have been filed to eliminate the use of all phthalates from use in food packaging but thus far, FDA has taken no action. FDA also <u>dragged its feet</u> when it came to bisphenol-A. Only after states had banned BPA from baby bottles forcing a market transformation did FDA finally take actionand the action was prompted by a <u>chemical industry petition</u>, not by FDA itself.

#### Didn't the FDA already ban all PFAS in July 2020?

No. The FDA entered into a <u>voluntary agreement</u> with manufacturers to stop using certain PFAS for use in food packaging. This agreement does not cover all PFAS. There is nothing in this agreement to ban the use of all PFAS in food packaging or food contact substances. The agreement comes after several NGOs pressured the FDA to look at the replacements for PFOA and PFOS as well as after states like Washington and Maine as well as several retailers adopted policies banning the use of PFAS in food packaging.

### PFAS AND FIREFIGHTING FOAM

**Context:** PFAS are found in firefighting foam used by the military, airports and fire departments to extinguish fires caused by flammable liquids and in training exercises. The use of this foam has been linked to significant soil, groundwater and drinking water contamination across the country. The US Defense Department has estimated that it will cost more than \$3 billion to clean up just the military sites where the foam was used. PFAS is also found in firefighting personal protective equipment, which is of great concern to the firefighter community. The tide is turning on PFAS in firefighting foam. The <u>Department of Defense</u> is phasing PFAS out of its firefighting foams and the <u>FAA has approved</u> the use of PFAS-free foams for airports.

**Model Policy:** Safer States has created a model policy to address PFAS in firefighting foam and require disclosure of PFAS to purchasers of personal protective equipment. The model can be found <u>here</u>.

**States that have adopted solid firefighting foam policy:** <u>Twelve states</u> have passed strong laws banning PFAS in firefighting foam. In addition, states including Colorado, Connecticut, Illinois, Michigan, New Hampshire and New Jersey have established take-back programs to responsibly dispose of PFAS-based foams. Many of these states have included provisions requiring PFAS disclosure on firefighting gear, and in 2022 both Massachusetts and Washington state have taken action to try to phase out the use of PFAS from this gear entirely.

#### **Policy Elements**

Any bill addressing PFAS in firefighting foam MUST contain:

- A ban on the sale, importation and use of PFAS in Class B firefighting foam. The bill must ban the entire class of PFAS chemicals.
- Requirements for disclosure of PFAS in firefighter personal protective equipment.

Any bill addressing PFAS in firefighting foam SHOULD contain:

- Provisions on proper disposal of PFAS-containing foam. The current model adopts language from California's law which requires manufacturers of PFAScontaining foam to recall (after the ban goes into effect) and store the foam until a state agency identifies a safe disposal technique. Another model could be to ban the incineration of PFAS-containing foam.
- Exemptions for facilities that must use PFAS-based foams due to federal requirements (currently airports of a certain size) with the exemptions expiring once federal requirements change.

Any bill addressing PFAS in firefighting foam MUST NOT contain:

- A ban on training with PFAS-based foam that allows for the use of the foam as long as containment measures are in place. These bills have proliferated and while they look like good first steps, they transfer liability for discharging of foams from manufacturers onto fire departments. These bills are being advanced by the chemical foam manufacturers as solutions to the PFAS problem.
- Blanket exemptions for airports without removal of those exemptions based on changes to federal regulations on Class-B firefighting foams.
- Specific language that does not allow for bans and restrictions on PFAS foam. This is also a provision the chemical industry has advanced.

#### **Resources for PFAS in Firefighting Foam Legislation**

- <u>American Sustainable Business Council's Case for Removing PFAS from</u>
  <u>Products</u>
- Dupont Announcement Phasing out PFAS-based Foams by 2021
- Erika Schreder Testimony in Washington State January 2020
- NRDC testimony in California on Fire Fighting Foam bill passed in 2020
- <u>Green Screen Certified Fire Fighting Foam</u>
- IAFF Fact Sheet on PFAS (they call it PFCs)
- <u>IAFF Testimony on PFAS Crisis</u>
- IPEN Paper on PFAS Alternatives
- Last Fire PFAS Alternative Press Release
- Linda Birnbaum Interview Re: PFAS Toxicity
- <u>Safer States' Guide to PFAS and COVID-19</u>
- <u>Scientific Basis for Managing PFAS as a Class</u>
- To Protect Human Health, PFAS must be Managed as a Class (NRDC factsheet)
- <u>NYTimes article on PFAS in turnout gear</u>
- Firefighter gear contain high levels of PFAS

- PFAS from Firefighter gear migrates into dust in firehouses
- <u>Firefighters Face New Possible Risk From Toxic PFAS: Their Gear (Bloomberg</u> <u>news)</u>
- Firefighters sue over PFAS in their gear

#### FAQs on PFAS in Firefighting Foam

#### Are there alternatives already in use for PFAS-based firefighting foams?

Yes. Safer effective alternatives to PFAS foams are in use all around the world. In response to state activity that bans the use of PFAS in firefighting foam, the <u>Firefighting Foam Coalition</u> (an alliance of foam manufacturers that make both PFAS-based and PFAS-free foams) has gotten bills introduced in a number of states that may look like reform but actually are meant to protect the largest markets for PFAS foams, which are airports, oil refineries and the military. Additionally, the <u>FAA has identified PFAS-free firefighting foam</u> that is authorized for use in airports.

These bills are passing unanimously in legislatures because of the national attention on PFAS and water contamination. States need to guard against these types of bills that do not ban the use of PFAS in foam but rather only aim to contain it. As history has shown us, PFAS cannot be contained and firefighters should not bear the burden of trying to contain PFAS-containing foams. These foams can and should be phased out in favor of safer alternatives.

Weaker bills like this have passed in Arizona, Arkansas, Georgia, Indiana, Maryland, Nevada, Wisconsin, Michigan, Kentucky, Minnesota, and West Virginia. These bills are problematic because:

- Twelve states have already set a precedent banning the use of PFAS-based foams with limited exceptions. Merely banning it in training is a half-measure at best.
- Several of the training-only bills actually allow PFAS to be used in training if there are technologies to capture it and dispose of it. Disposal is not defined clearly and this exemption places a huge burden on firefighters, first responders, and other governmental agencies rather than on foam or PFAS manufacturers.

- Banning the use of PFAS-based foams in training is a good first start but many of the bills that have passed have provisions that explicitly state that the bill does NOT ban PFAS in firefighting foam in the state. Going any further in the future would force legislatures to reverse this provision soon after passing which is politically difficult. If a state can only enact a ban on PFAS-based foams in training, it is critical to leave the door open for the state to enact a ban on all uses of PFAS-based foams.
- These bills place the burden of containing PFAS in water on firefighters, rather than on manufacturers of foam or the makers of PFAS. Putting responsibility for the use of the foam on firefighters rather than on the manufacture of these foams or chemicals is a convenient way to deflect responsibility and liability away from manufacturers of foam and PFAS.

These measures emphasizing containment really amount to a get-out-of-jail-free card for the industry. There has been a lot of national attention on PFAS and many activists are calling for industry to pay for the damage they have caused to communities. By shifting the burden of responsibility to fire departments, it absolves the industry of wrongdoing and places it squarely on firefighters.

With alternatives already on the market and being used successfully around the world, we need bold action to remove PFAS from foam entirely rather than half measures.

#### How has the federal government acted?

The federal government has taken several steps to phase out PFAS firefighting foam but state action is needed since there is no federal ban on PFAS in foam, although a <u>bill to ban PFAS in foams</u> has been introduced in Congress. The final 2020 National Defense Authorization Act (NDAA) included <u>key provisions</u> to phase out the military's use of firefighting foam containing PFAS chemicals. The Act requires a phase-out of the military's use of PFAS-based firefighting foam beginning in 2024, a ban on military training exercises with PFAS-based foam, and greater information and guidance on the destruction and disposal of the foam. The <u>Pentagon</u> announced a new military specification for foams to be made without PFAS. Additionally, the <u>FAA has authorized</u> the use of a PFAS-free foam alternative but compliance is not mandatory.

#### Who is likely to oppose these kinds of bills?

The most vocal opposition will likely come from a group called the Firefighting Foam Coalition composed of manufacturers of PFAS and PFAS-free foams. There are two new trade associations representing fluorochemical industry <u>interests that</u> <u>replaced the FluoroCouncil: the Performance Fluoropolymer Partnership (PFP) and</u> <u>the Alliance for Telomer Chemistry Stewardship.</u>

Members of the Alliance for Telomer Chemistry include Johnson Controls, Dynax, AGC Inc., and Daikin Industries, Ltd. These companies make PFAS that are used in firefighting foam (fluorosurfactants) and textiles (side-chain fluorinated polymers; e.g. used in firefighter gear).

They will bring in firefighting "experts" and manufacturers who will argue that PFAS-free foams are not as effective as PFAS foams. In Washington state, the main person to testify worked for a company that makes PFAS-free foams and he argued they weren't as effective as PFAS-based foams. They will also claim that they are already stewards of the environment due to their best practices requiring that fire departments train with foam that does not contain PFAS. These best practices do not go far enough and should not be a substitute for taking these chemicals off the market and protecting the public's drinking water.

Sometimes they will argue that the new generation PFAS are safer. They will point to their improved profile on bioaccumulation and say that they went through a rigorous approval process at EPA. See above for the facts on these issues.

#### How should our states deal with existing PFAS-based foams?

Unfortunately, there is no good answer to how to properly dispose of PFAS or PFAS-based foams. Current strategies involve incineration which harms communities living near the incinerator and ultimately moves the PFAS into the air where it is transported around the globe. The New York legislature has adopted a policy to ban incineration in one facility. The model firefighting foam policy contains a provision based on California's law requiring manufacturers to store it until a safe disposal solution is available.

The model legislation also contains language banning incineration which states are encouraged to adopt.

The state of Washington proposed incinerating its foam but NGOs have requested safe storage pending safer technologies. Here are links to letters sent by NGOs requesting no incineration: <u>Toxic-Free Future and Sierra Club Sierra Club and Earthjustice</u>.

### DISCLOSURE AND REGULATION OF PFAS IN ALL PRODUCTS

**Context:** Banning PFAS in individual product categories is valuable and can make significant inroads in curbing PFAS exposures and pollution. However, given the widespread use and the lack of transparency about where PFAS is used and in what products, we are likely just scratching the surface of the problem. A <u>study</u> released in 2020 shows that our understanding of where PFAS is used is limited and that it is far more widespread than previously thought. To properly tackle the PFAS problem, we must know where it is being used, ban its unnecessary use by a certain date and give states the authority to ban its use in all products.

It is critical that if a state is attempting to introduce a comprehensive bill regulating PFAS, **all of the following conditions are met:** 

1) The state agency implementing the law has the capacity and knowledge of hazard-based regulatory approaches. The states that have been successful in passing these types of policies have agencies with deep expertise in toxics and a hazard-based approach to regulation. A hazard-based approach restricts chemicals based on their inherent hazardous properties as opposed to a risk-based approach which determines how much exposure to a chemical is allowable. Safer alternatives identification evaluates alternatives to the priority chemical (e.g. PFAS) using <u>GreenScreen</u> or another similar tool to determine safer alternatives. Bans for necessary uses would be put into place after safer alternatives that are feasible and available have been identified. However, unnecessary uses of PFAS should be banned immediately.

2) Advocates with capacity for implementation. Implementing a program such as this will require active engagement with the program. Opponents of the program will continuously try to subvert the program and, even if an agency is strong and committed, it is important that there be advocates on the ground to provide the necessary support to ensure it is implemented correctly. 3) Adequate funding or a dedicated funding mechanism. Collecting data on this scale can be costly as can regulating consumer products. It is important that the agency has the resources at its disposal so that they can adequately implement the program.

**State Action:** <u>Minnesota</u> and <u>Maine</u> have laws requiring manufacturers of products containing PFAS to report this information to their respective state agencies. The laws require product manufacturers to disclose to the state their use of PFAS in products, gives the state the authority to ban the use of PFAS in consumer products and imposes a deadline of banning PFAS in all consumer products by 2032 unless a manufacturer qualifies for a waiver for uses that are shown to be "currently unavoidable." The Interstate Chemicals Clearinghouse will house the data received so as to save the state money and avoid duplication. In addition, the state has given dedicated funding to support the program. Maine's bill also banned PFAS in carpets, rugs and aftermarket treatments and set up other PFAS reduction programs as part of the legislation whereas Minnesota's law banned PFAS from a host of products including cookware, menstrual products and cosmetics.

In 2019, <u>Washington</u> passed legislation giving broad authority to the state's Department of Ecology to require disclosure and potential regulation of classes of chemicals of concern, including PFAS in consumer products. The state can ban PFAS in products when safer, feasible and available alternatives have been identified by the agency. This program also has a dedicated funding source to ensure proper implementation.

**Model Bill:** The Safer States model bill includes two sections that deal with the issue of lack of transparency as well as the authority to regulate. The model can be found <u>here</u>.

#### **Policy Elements**

A comprehensive disclosure and regulation bill MUST:

- Define PFAS as a class as noted in the model legislation. Numerous states and Congress have defined PFAS as a class in laws that are currently being implemented. There is no valid scientific reason to adopt a different definition.
- Require written notification from manufacturers on the use of PFAS in products. Contain clear criteria for what can and cannot be considered a currently unavoidable use of PFAS.

A comprehensive disclosure and regulation bill SHOULD include:

- Provisions that give the state the option to participate in the Interstate Chemicals Clearinghouse.
- A definition of "currently avoidable use" that exempts only products from regulation that are necessary for the protection of human health or the functioning of society.
- An exemption process that expires after a certain length of time (the model bill suggests 5 years).
- A fee structure to assist the state in paying for this new program.
- Specific bans in the bill so as to strategically ban PFAS in key sectors under defined timelines as part of the process; look to Maine's legislation for an example of this strategy.

- Testimony delivered in Maine in support of disclosure and regulation of PFAS
- Maine Fact sheet in support of disclosure and regulation of PFAS
- PFAS Toxicity Database
- Maine Comprehensive Legislation

### PFAS AND WATER

**Context:** PFAS contamination has been found in drinking water or groundwater in almost <u>3,000 sites in all 50 states</u>, and this is likely just the tip of the iceberg of the PFAS problem when it comes to water. We will soon have much more data on the extent of drinking water contamination as more than ten thousand public water systems from around the country test for 29 PFAS from 2023-2026 under the EPA's <u>Unregulated Contaminant Monitoring Rule</u>. In 2023, the <u>EPA announced drinking</u> <u>water standards</u> for six individual PFAS including PFOA, PFOS, PFNA, PFHxS, HFPO-DA (GenX), and PFBS. This is the first time that drinking water standards have been proposed for a new chemical under the Safe Drinking Water Act since it was updated in 1996. The newly proposed drinking water standards are:

4 parts per trillion for PFOA 4 parts per trillion for PFOS A standard based on the hazard of a mixture of four additional PFAS chemicals: PFNA, PFHxS, PFBS, and HFPO-DA (commonly known as Gen X)

The proposed new drinking water standards follow a 2022 announcement of lifetime health advisories for four PFAS (per- and polyfluoroalkyl substances).

In December 2022 the EPA issued a strong <u>guidance memo</u> urging states to use water pollution control permits to limit PFAS discharges.

**State Action:** States are starting to set drinking water and surface water standards for PFAS While regulating PFAS as an entire class in water standards is difficult due to existing requirements in water policy, many states have made headway in regulating individual PFAS or the sum of 5 or 6 chemicals. Follow this link for testimony and technical documents regarding regulating PFAS as a class in water. Thus far, the following PFAS have been regulated in water by states: PFOA, PFOS, PFHxS, PFNA, PFHpA, GenX, PFBS, PFBA and PFDA. North Carolina, Michigan and Colorado have also been using permitting authority to require industries to limit their PFAS discharges to surface or wastewater.

**Model policy:** States interested in legislation requiring monitoring for PFAS, adopting drinking water standards for PFAS, and/or adopting surface water standards for PFAS should refer to Vermont's bill <u>S.49</u>. Model language detailing how communities should be notified of confirmed detections can be found in California's bill <u>AB 756</u>. Organizations interested in getting their states to use water pollution permits to limit discharges of PFAS into water bodies should refer to this <u>EPA guidance memo</u>, and this <u>overview</u> provided by Clean Water Action.

#### Policy components for drinking water monitoring:

Any bill addressing drinking water monitoring for PFAS MUST contain:

- Directions to use the most recently updated US EPA testing method. Older methods like 537.1 and 537 are older and not sensitive enough.
- A provision requiring the state to notify impacted households and surrounding communities if detections are found.

Any bill addressing drinking water standards for PFAS SHOULD contain:

• A requirement that, at a minimum, all drinking water systems within 2 miles airports, fire training areas, municipal solid waste landfills, incinerators, PFAS manufacturing facilities, Department of Defense sites, and any other known potential source of PFAS be tested and that further testing should be pushed out 2 miles further until no PFAS are found.

#### Policy components for drinking water standards:

Any bill addressing drinking water standards for PFAS MUST contain:

• Instructions to state agencies to consider the most sensitive populations including, pregnant women, fetuses, infants (bottle-fed and breast-fed), and small children.

Any bill addressing drinking water standards for PFAS SHOULD contain:

- A requirement that the state measure and consider regulating all PFAS or subgroups of closely related PFAS compounds. As stated above, this is incredibly difficult but it is a worthy conversation to have with legislators and water agencies.
- Directions to set notification levels prior to the finalization of drinking water standards if not already in place.

#### Policy components for surface water standards:

Any bill addressing surface water standards for PFAS MUST contain:

- A requirement that NPDES permits for key industries include monitoring requirements for PFOA, PFOS and at least one so-called "short-chain" PFAS in wastewater. Monitoring should use the most recently updated US EPA testing method for surface water, currently <u>Draft Method 1633</u>. Industries should treat wastewater if high levels of PFAS are detected.
- Conditions that require fish consumption advisories in waters with certain levels of PFAS, addressing harms to sensitive populations including pregnancy and early childhood.

Any bill addressing surface water standards for PFAS SHOULD contain:

• A requirement that PFAS be regulated as a whole class of compounds or at a minimum, subgroups of the PFAS class and their salts and transformation and degradation precursors. As stated above, this is incredibly difficult but it is a worthy conversation to have with legislators and water agencies.

- EPA methods for testing PFAS in drinking water & other environmental media
- Method developed by the state of Maine to test for PFAS in sludge
- Comments on VT water policy pushing for a class-based approach
- NRDC comments on regulating PFAS as a class Maine MCL Bill (LD 129)
- EPA's Unregulated Contaminant Monitoring Rule 5 requiring PFAS testing
- EPA's list of approved labs for testing PFAS in water
- EPA memo on how states can address PFAS discharges in NPDES permits and through the Pretreatment Program and Monitoring Programs
- <u>Clean Water Action blog on how states can use water pollution permits to</u>
  <u>control PFAS</u>
- For examples of states already using their existing authorities to require industries to limit their PFAS discharges, see: <u>North Carolina</u>, <u>Michigan</u> and <u>Colorado</u>

#### PFAS POLLUTION IN WASTEWATER AND FARMLANDS

#### **PFAS and Wastewater**

**Context:** While there has started to be progress in eliminating PFAS from some consumer products as well as identifying and controlling some PFAS in drinking water, there is still much left to do. There is an urgent need to decrease the pollution of agricultural lands, reduce risks for subsistence foods, and avert the continued movement of these toxic "forever chemicals" through the water cycle.

Industrial discharge is a major source of PFAS pollution in water. PFAS are currently legally discharged into wastewater from a variety of industries including chromium plating, and some types of paper and plastic production. The chemicals also leach from polluted sites like petroleum refineries, landfills, airports and military bases, entering stormwater drains or directly into rivers and streams.

**State Action:** States can play a key role in reducing PFAS in the water cycle by setting limits for discharging industries directly in wastewater permits, requiring industries to treat waters leaving industrial and legacy pollution sites, and ensuring highly contaminated biosolids are not applied to food crops. The US EPA recently directed states to <u>take action on PFAS in wastewater</u>. Specifically, states should require wastewater treatment plants to measure concentrations in influent, effluent and biosolids, and require PFAS pre-treatment for industrial dischargers. Three states, Michigan, North Carolina and Colorado, are already imposing these requirements and a few others including New Hampshire, Vermont and Massachusetts are beginning to test sludge for PFAS.

The ultimate fate for disposal of contaminated biosolids is a more difficult challenge, as there are presently no cost-effective ways to concentrate or destroy PFAS in biosolids. We recommend that biosolids with high concentrations of PFAS NOT be applied to farmland, and should be put in a lined, monitored landfill.

<u>Maine</u> is the only state that has banned the land application of all biosolids, requiring all material to be landfilled. Other states like California have rules that prohibit biosolids from being landfilled due to greenhouse gas emissions from organic material. As states and federal regulators get a handle on the scope and significance of the problems posed by PFAS in wastewater, the best approach is to start with prevention efforts, monitoring and treatment of wastewater and elimination of PFAS from multiple consumer and industrial sources so as to reduce the concentration of PFAS in the environment to the maximum extent possible. **Model policy:** Legislatures can direct states to follow <u>EPA's 2022 guidance for PFAS</u> in wastewater. They can allocate money to support testing costs for small wastewater systems and testing of raw septage that is disposed of on land or "composted". Legislatures can allocate money for state regulators to review the data that is generated, investigate historic sludge disposal locations, and issue permit restrictions for discharging industries. Policy should also include technical requirements for PFAS measurements, reporting times, and deadlines for action.

#### Policy components for addressing PFAS in wastewater discharge:

States should follow the EPA's 2022 guidance on how states should use water pollution permits to limit discharges of PFAS, including:

- Mandating quarterly monitoring for municipal wastewater treatment plants for effluent, influent, and sewage sludge
- Requiring wastewater treatment plants to identify and reduce sources of PFAS from industrial users
- Requiring industrial facilities likely discharging PFAS to conduct quarterly effluent monitoring
- Making industrial permits contingent upon the use of best management practices to prevent pollution, including encouraging product substitution to move away from PFAS
- Restricting the use of PFAS-based firefighting foam in the petroleum industry, chemical industry and transportation sector through stormwater permits
- Instituting technology-based permit limits to reduce all PFAS from industrial effluent to non-detectable levels
- Ensuring that public water systems downstream from PFAS dischargers are notified
- Halting the state rules that encourage "beneficial reuse" of industrial byproducts that contain PFAS or other toxic chemicals (ie leather tannery waste, wood and pulp waste, coal ash, etc.)

Any bill addressing wastewater and PFAS *MUST* contain:

• A requirement that NPDES permits for key industries include reporting for all detectable PFAS. Monitoring should use the most recently updated US EPA testing method for wastewater, currently <u>Draft Method 1633</u>. Industries should treat wastewater if high levels of PFAS are detected, with a requirement that there be no detectable PFAS in treated water.

Any bill addressing wastewater and PFAS should contain:

• Provisions to include PFAS monitor in de-watering permits, and directing highly impacted waters to secure treatment/disposal sites.

#### **Resources:**

• EPA Dec 2022 Guidance Memo for PFAS in wastewater

#### **PFAS and Farmland Contamination**

**Context:** PFAS chemicals that are discharged in the wastewater accumulate in the solid materials (sludge or biosolids) which are often applied to farmlands and open spaces for disposal. In some cases, industrial byproducts laden with PFAS have been applied directly to agricultural lands. There has been very little testing for PFAS contamination of American farmland and agricultural crops. However, a few sites have been discovered, particularly in <u>Maine</u>, <u>New Mexico</u> and <u>Michigan</u>, where sludge application or contaminated water sources have resulted in intense contamination of food crops and dairy products. Farmers have lost their livelihoods and in some cases have elevated concentrations of PFAS in their bodies as a result of eating homegrown foods and drinking from contaminated wells.

**State Action:** States should take steps to protect agricultural producers who are unknowing victims of PFAS contamination. Policies should provide state funding to use for income support and medical monitoring. Ideally, these systems are in place before widespread testing of agricultural soils, irrigation water, or food crops is initiated. In 2023, <u>Maine approved \$70 million</u> in relief funds for farmers contaminated by PFAS.

Policy components for addressing PFAS in agricultural lands:

- Providing funding to support medical care for impacted farm families
- Funding for water treatment, land buy-out, or environmentally-friendly sources of replacement income for farmers impacted by PFAS contamination
- Providing funding for state regulators to research and identify potentially impacted farms or food products
- Providing funding for research into PFAS uptake by crops

Any bill to address impacts to farm families should include

• Language to direct at least 40% of state dollars to small producers.

#### ADDING PFAS TO STATE SUPERFUND HAZARDOUS SUBSTANCES LISTS

**Context:** The federal <u>Superfund</u> law (which is formally known as the Comprehensive Environmental Response, Compensation, and Liability Act or CERCLA) was passed in 1980 to address hazardous waste. It includes strong language that imposes <u>liability</u> on parties who were responsible or potentially responsible for the release of the hazardous waste.

**Federal Action:** The EPA has <u>begun the process</u> of listing PFOA and PFOS to the federal Superfund list. The listing is for only these two chemicals and not for the class.

**State Superfund Programs:** Many states have since created their own state-level Superfund-type programs. If your state has such a program, look into whether it relies on the EPA's CERCLA hazardous substances list or uses its own list. If your state uses its own hazardous substances list, petition the relevant agency to get PFAS added.

Why this matters: PFAS is currently not included on the CERCLA hazardous substances list. This doesn't mean that federal law can't be used to address PFAS contamination since CERCLA applies to any pollutant or contaminant that "will be or may be anticipated to cause" adverse health effects. However, it does mean that the EPA has to make the case that CERCLA applies to PFAS, which isn't ideal since polluters are likely to argue this point. Getting PFAS added to your state Superfund program's hazardous substance list, if it has one, will eliminate any potential ambiguity around whether your state Superfund law can apply to PFAS chemicals, and would make polluters liable for the costs of cleanup (if this is an element of the state law in question). Listing of PFAS could also strengthen the state's hand in any future litigation the state may bring against polluters.

### To explore listing PFAS on State Superfund Hazardous Substances Lists, follow these steps:

Step 1. Find out whether your state has its own Superfund program. One good resource is this <u>website</u> which includes a summary of state programs. You can also talk to state officials to learn more about the Superfund program in your state.

Step 2. Talk to state officials. If your state does have its own Superfund program, talk to relevant state agency officials about how the law works, whether it includes a state-specific hazardous substances list, and how you may be able to petition to get PFAS added to the list. The petition process will be highly state-specific.

Step 3. File a petition. While we don't have examples of state petitions yet, there have been two petitions filed with the EPA to get PFAS listed as hazardous substances under the Resource Conservation and Recovery Act (RCRA), a federal statute that is linked to CERCLA. These petitions, which can be found <u>here</u> and <u>here</u> and are also linked in the list of resources below, contain extensive information that can be repurposed for a state petition. Safer States can also assist in drafting a state petition if desired.

Note about potential EPA action: In October 2021, the <u>EPA announced</u> that it will begin work to add 4 PFAS to the Resource Conservation and Recovery Act's (RCRA) Hazardous Constituent List. Once the EPA completes the process to add certain PFAS to the RCRA list, those PFAS would automatically be designated as "hazardous substances" under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). While the RCRA statement is a significant step for the EPA, critics quickly commented that the step does not go far enough, mainly because the EPA declined to list all PFAS as a class under the RCRA.

- <u>Website summarizing state Superfund laws</u>
- Environmental Law Clinic Petition to the EPA to list PFAS as a hazardous substance under RCRA, a related federal statute
- <u>PEER petition to the EPA to list PFAS as a hazardous substance under RCRA, a</u> <u>related federal statute</u>
- More detailed definition of "CERCLA Pollutant or Contaminant"

#### PFAS TASK FORCE CREATION

**Context:** Several states, including WI, PA, MI, CT and ME, have created interagency PFAS task forces to create and implement state-specific action plans to address PFAS issues. Most such task forces have been created through a Governor's executive order, but states could also introduce legislation to accomplish this same goal. This can often be a good first step if your state is new to PFAS but be careful as task forces are often an industry delay tactic so only go down this path if you have some confidence in your agency.

The strongest task forces include the following requirements around what the task force must do:

- Identify uses of PFAS in the state that are most likely to pose a risk to human health and the environment, such as the use of firefighting foam, industrial releases, carpets, food packaging materials, and other uses.
- Develop recommendations and actions that can be taken to limit or control these and other sources of PFAS, with special attention paid to the use of Aqueous Film Forming Foam in firefighting and fire training activities.
- Consider the avenues within state law to make polluters pay for clean-up costs and damages related to PFAS contamination.
- Assess the status of any PFAS-contaminated site and develop individualized response strategies.
- Evaluate treatment and disposal options for PFAS-contaminated media. Identify gaps in knowledge about PFAS in the state and recommendations to address these gaps through testing, monitoring or other means.
- Perform outreach to ensure all stakeholders in impacted areas are informed, educated, and empowered.
- Allow public comment on the proposed action plan before it is finalized. Evaluate the public health risks of PFAS in addition to any impacts on natural resources, agriculture, wildlife and fisheries in the state.
- Assess the gaps or limitations within state law to obtain reimbursement from PFAS manufacturers for the costs associated with PFAS clean up and the damages, and recommendations about any changes needed to state law to fill these gaps.
- Create a public website that tracks the progress of the task force, and includes a list of members, public meeting information and materials, drafts of any action plans, and information about opportunities for public comment or engagement.

- Develop a clearinghouse of information on PFAS and a plan to effectively inform and educate the public about PFAS.
- All references to PFAS in the task force must define PFAS as a class.

Any bill/executive order creating a PFAS task force SHOULD NOT contain:

- Provisions allowing industry representation on the task force without also including representation from affected communities and non-profit organizations in equal numbers.
- Instructions to look only at a subset of PFAS chemicals such as PFOA and PFOS.

- <u>Example PFAS Taskforce website from Michigan</u>
- <u>Example PFAS Taskforce website from Connecticut</u>
- Example Executive Order from Maine
- Example Executive Order from Pennsylvania
- <u>Example Executive Order from Wisconsin</u>
- Example Executive Order from Michigan
- Scientific Basis for Managing PFAS as a Class
- To Protect Human Health, PFAS must be Managed as a Class (NRDC factsheet)

## REVENUE GENERATION FOR PFAS CLEANUP AND POLLUTION PREVENTION

**Context:** The State of Colorado passed legislation that creates a fund to pay for a statewide firefighting foam takeback program, water treatment infrastructure for PFAS removal, PFAS testing and investigation, and emergency assistance for communities and water systems affected by PFAS contamination. (Additional revenue flows to the state department of transportation and the department of public safety to support the regulation of hazardous materials on state highways.) The legislation places a \$25 fee on each tank or truckload of fuel products delivered in the state to provide revenue for the fund.

**Model policy:** Safer States directs states interested in this strategy to language passed by Colorado that can be found <u>here</u>.

**Variations are possible:** There are variations on this bill that could be introduced, including placing costs on a different industry or using the funds raised for a different set of PFAS cleanup or pollution prevention-related activities. If you are interested in pursuing one of these alternative options, please contact Safer States to explore options.

Any bill creating a PFAS Cleanup and Pollution Prevention Fund MUST contain:

- List of PFAS cleanup and/or pollution prevention-related activities that the fund can be used to support.
- If the fund will support a firefighting foam takeback program, a requirement that the department overseeing the program will develop procedures ensuring proper storage and disposal.

Any bill creating a PFAS Cleanup and Pollution Prevention Fund SHOULD contain:

 Revenue generation provisions that place financial responsibility on large industries that are directly or indirectly linked to PFAS pollution.

Any bill creating a PFAS Cleanup and Pollution Prevention Fund SHOULD NOT contain:

- Provisions that would allow the funds generated to flow to the state's general fund and not predominantly to PFAS cleanup, pollution prevention and/or support for affected communities and water systems.
- Provisions that would place the burden of revenue generation directly on small businesses.