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Testimony of Jennifer Quinn to the Senate Democratic Policy Committee

Thank you Chairman Miller and members of the Committee for the opportunity to provide testimony on actions and policies that can improve air and water quality in the Commonwealth.

Pennsylvania possesses an abundance of water resources, with roughly 86,000 miles of rivers and streams, second only to Alaska, and more than 4,000 lakes, reservoirs, and ponds. These vital resources provide essential drinking water, sustain diverse ecosystems, and support economic and recreational activities throughout the Commonwealth.

The Pennsylvania Environmental Rights Amendment, Article I, Section 27 of the state Constitution, declares that the people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic, and esthetic values of the environment. It further states that Pennsylvania's public natural resources are the common property of all the people, including future generations, and designates the Commonwealth as trustee with the duty to conserve and maintain these resources for the benefit of all.

Given today's broad topic, I chose to address it through the lenses of: preventing harm, investing in proven tools, and anticipating new risks.

Prevent Harm - Stop Further PFAS Contamination

PFAS Contamination in Pennsylvania

As of early 2026, many US states (See Appendix A) have enacted laws to ban or seriously restrict PFAS-containing firefighting foams (primarily Class B aqueous film-forming foam, or AFFF) with eleven states passing laws in 2024 alone. These typically include prohibitions on the manufacture, sale, distribution, and/or use (often with exceptions for emergencies, federal requirements for certain airports/military, or phase-out periods).

Pennsylvania can join that growing list. House Bill 1261, would restrict the use of PFAS-containing firefighting foams and require labeling on protective equipment. This bill, which passed the House unanimously, represents a critical step forward in protecting Pennsylvanians from the dangers of these "forever chemicals."

First, let's be clear about what PFAS are and why they pose such a threat. Per- and polyfluoroalkyl substances, or PFAS, are synthetic chemicals found in Class B firefighting foams used for very hot flammable liquid fires (oil, gas, aviation fuel). These chemicals do not break down easily in the environment or the human body, earning them the nickname "forever chemicals." Exposure to PFAS has been linked to a range of serious health issues, including increased risks of kidney and testicular cancers, liver damage, reproductive problems, and developmental delays in children such as low birth weight and behavioral changes.

In Pennsylvania, we've seen the devastating real-world impacts of PFAS contamination firsthand, much of it stemming directly from firefighting foams. For decades, these foams were used at military bases and airports during trainings for first responders, leading to widespread groundwater pollution. In areas like Warminster, Horsham, and Willow Grove in Bucks County, PFAS from foams discharged at sites like the former Naval Air Warfare Center have contaminated public and private water supplies, affecting thousands of residents. Wells in these communities showed some of the highest PFAS levels in the nation, forcing families to rely on bottled water and expensive filtration systems. Similar issues have cropped up in western Pennsylvania, near the Pittsburgh airport, where foam spills entered streams and wastewater systems, and at airports and military training sites¹ across the commonwealth.

House Bill 1261 is especially vital for our firefighters, who face heightened exposure through both the foams and their protective gear. Cancer is now the leading cause of line-of-duty deaths among firefighters, and PFAS are a key contributor. HB 1261 would ban the manufacture, sale, and distribution of PFAS-containing foams starting July 1, 2026, and prohibit their use by January 1, 2027, with sensible exceptions for federally required applications and high-risk facilities like airports and refineries. It also mandates warning labels on PFAS-containing protective equipment, empowering firefighters to make informed choices. Importantly, the bill provides practical support: the State Fire Commissioner would assist with transitioning to safer alternatives, and fire companies could use grant funds for disposing of old foams and purchasing PFAS-free options.

¹ Where It's Found.

<https://www.pa.gov/agencies/dep/programs-and-services/water/bureau-of-safe-drinking-water/pfas/where-its-found#accordion-7e41b74040-item-89e039ba91>

Additionally, PFAS cleanup costs taxpayers millions; by preventing new contamination, we avoid future burdens on water utilities, health care systems, and communities. Pennsylvania would join many other states that have already enacted similar restrictions, aligning us with national progress and potentially attracting federal funding for remediation.

The unanimous House passage shows this is a commonsense, nonpartisan issue supported by firefighters, environmental groups, and residents alike. A companion bill, SB 980 from Senator Yaw and Chairman Miller, has been introduced. Delaying action risks more lives and more pollution. Passing HB 1261 or SB 980 will safeguard our water, our health, and our first responders.

Invest in proven tools - Increase Funding for Growing Greener

Growing Greener History

Growing Greener is one of Pennsylvania's most significant and successful environmental initiatives. It's also the largest single investment of state funds in the Commonwealth's history to address critical environmental concerns, such as watershed restoration, farmland preservation, open space conservation, abandoned mine reclamation, state park improvements, recreational trails, and water/sewer infrastructure upgrades.

The program was established in 1999, when Governor Tom Ridge signed Act 68 of 1999 (the Environmental Stewardship and Watershed Protection Act) into law. This bipartisan legislation passed with overwhelming support, unanimously in the House and nearly unanimously (49–1) in the Senate.

It created the Environmental Stewardship Fund (ESF) and committed approximately \$650 million over five years to protect and restore Pennsylvania's natural resources. The initiative aligned with Pennsylvania's constitutional mandate for clean air, pure water, and preservation of natural, scenic, historic, and esthetic values. It funded projects across multiple agencies, including the Department of Environmental Protection (DEP), Department of Conservation and Natural Resources (DCNR), Department of Agriculture, and Pennsylvania Infrastructure Investment Authority.

It supported over 1,100 watershed restoration projects in the first three years alone, leveraging public funds with significant matching contributions.

In 2002, under Governor Mark Schweiker, the program was reauthorized and expanded. Funding was doubled from \$645 million to \$1.3 billion, with an extension through 2012.

This included a permanent dedicated revenue source via a \$4/ton municipal waste disposal fee (tipping fee) on landfills, generating roughly \$60–94 million annually

Recognizing the need to accelerate progress and continue a successful program, Governor Ed Rendell and the General Assembly placed a \$625 million bond referendum on the ballot. Voters approved it in the May 2005 primary (by 60%), and Act 45 of 2005 established Growing Greener II. Funds were distributed over six years to six agencies (including DEP, DCNR, Agriculture, Community and Economic Development, Fish and Boat Commission, and Game Commission). Debt service on these bonds was paid from the ESF, which has impacted available funds for other projects in later years.

Successes

Growing Greener grants have helped locally-based organizations help their communities. Watershed associations, land trusts, conservation districts, and other groups have brought hundreds of miles of stream back to life, made our water safer to drink, reduced the threat of flooding, and made fishing, swimming, and paddling possible. These organizations have used proven, cost-effective methods to get results, including:

- Passive and active treatment of abandoned-mine drainage.
- Tree plantings along waterways.
- Streambank stabilization and habitat structures.

Growing Greener investments have also:

- Restored 1600 acres of abandoned mine lands and 250 acres of brownfields to productive use.
- Plugged more than 700 abandoned oil and gas wells.
- Rebuilt water treatment infrastructure.
- Conserved 80,000 acres of open space for outdoor recreation and wildlife.
- Preserved more than 80,000 acres of productive farmland that preserve rural traditions and stabilize rural economies.
- Improved hundreds of parks, planted tens of thousands of trees, rehabilitated dams, and fixed stormwater infrastructure.
- Supported more than 130 infrastructure projects in state parks and forests, ensuring that they are sanitary, safe, and accessible for millions of visitors each year.

More Funding Is Needed

Despite these tremendous successes, current funding levels for Growing Greener are much lower than prior years (mid-2000s averaged \$200 million when bond proceeds were flowing) due to no new significant sources of funding and ongoing debt service from the 2005 Growing Greener II bonds being paid from the ESF. And Growing Greener is also underfunded relative to the tremendous backlog of environmental needs waiting to be addressed.

Simply put, there's a huge number of projects to complete and not enough money to complete them.

- There are still more than 19,000 miles of rivers and streams toxic to life—unsafe for drinking, swimming, fishing, and boating.
- 200,000 acres of abandoned mine land and thousands of brownfield sites
- Hundreds of thousands of unplugged oil and gas wells
- The funding gap to fix aging water-treatment facilities is \$18 billion.
- Farmland is disappearing rapidly—since 1982, nearly a million acres have been permanently lost.
- State parks and forests require nearly \$1 billion in necessary repairs and improvements.

Even with all of Growing Greener's successes, when it comes to providing more funding, the question I always hear from legislators is, 'Where is the money coming from?'

Possible Funding Sources

Skills Games Tax: Pennsylvania could regulate and tax the estimated 40,000 unregulated slot-like skills games machines at a high rate, similar to casino slots, generating hundreds of millions annually. A portion of this revenue could be dedicated to Growing Greener

Online Gambling Expansion/Allocation: Building on Pennsylvania's existing taxes on iGaming, which already yield billions yearly, reallocating a small percentage could boost Growing Greener without new taxes.

Marijuana Legalization & Tax: Legalizing recreational cannabis with a sales tax could bring in a large amount of revenue, with a dedicated share funding Growing Greener's restoration projects. This approach, modeled after Montana's use of cannabis taxes for habitat protection, addresses potential environmental impacts from cultivation.

Natural Gas Severance Tax: Implementing a volume-based tax on Marcellus Shale gas, alongside the current impact fee, could generate hundreds of millions (or more) annually like in Texas or New Mexico. As Pennsylvania is an outlier without such a tax, this would tie resource extraction directly to environmental stewardship.

Corporate Tax Reform (Combined Reporting): Closing the 'Delaware loophole' by requiring multistate corporations to report combined income could capture over a billion in new revenue, freeing up funds for Growing Greener.

Voter-Approved Bonds: Issuing new bonds for a "Growing Greener III," similar to past successful referendums, could provide a one-time infusion of hundreds of millions for conservation.

Increasing Existing Waste Tipping Fee: Raising the municipal waste disposal fee, unchanged since 2002, could add tens of millions to Growing Greener's dedicated funding stream.

How Other States Fund Conservation Programs

Excise Taxes on Outdoor Gear - Emerging in states like Texas, Virginia, and Georgia, these reallocate taxes on hiking, camping, boating, and other non-hunting/fishing equipment to wildlife conservation funds.

Cannabis Sales Taxes - Montana allocates a portion of marijuana sales tax revenue to boost habitat programs (e.g., Habitat Montana) and nongame wildlife funds.

Severance Taxes - Resource-rich states dedicate portions of severance taxes (on oil, gas, coal) to permanent trusts for long-term conservation. For example, Colorado directs surplus severance tax to species conservation; Montana uses coal severance tax allocations for habitat and conservation districts; Wyoming and New Mexico channel mineral revenues to endowments supporting wildlife and reclamation.

Ballot Measures and Voter-Approved Bonds - Frequent tools for one-time or ongoing boosts, such as Texas's 2023 voter approval of a \$1 billion Centennial Parks Conservation Fund for new parks and land acquisition.

Pennsylvania must increase funding for Growing Greener by exploring proven revenue sources. Investing in this successful program now will accelerate restoration efforts, safeguard public health and the environment, and ensure a greener, more resilient Commonwealth for all Pennsylvanians.

Anticipate New Risks

Data Centers and Water

Data centers are critical infrastructure for the digital economy, powering everything from cloud computing to AI applications, but they consume significant amounts of water, primarily for cooling purposes. Servers and processors generate immense heat during operation, and water is often used in evaporative cooling systems where it absorbs this heat and then evaporates, preventing equipment from overheating. Additionally, indirect water usage occurs through the electricity generation that powers data centers, as power plants also require significant amounts of water. This dual footprint of direct onsite cooling and indirect via energy production only amplifies the overall impact on water resources.

Estimates of water consumption vary by facility size, location, and technology, but the scale is substantial. In 2023, U.S. data centers directly used about 17 billion gallons of water for cooling, with hyperscale facilities accounting for the majority; projections indicate this could double or quadruple by 2028. A single large data center can consume up to 5 million gallons per day, equivalent to the daily water needs of a town of 10,000 to 50,000 residents. Indirect consumption added another 211 billion gallons in 2023, tied to the 176 terawatt-hours of electricity used nationwide. Globally, companies like Google reported using 6.4 billion gallons in 2023 across their operations, with 95% attributed to data center cooling. As AI demands grow, total U.S. consumption is expected to rise, potentially reaching hundreds of billions of gallons annually by 2030.

How to Reduce Data Center Water Usage

Enhance Transparency

- **Mandate Comprehensive Water Usage Reporting for All Data Centers:** Require annual public reporting of projected and actual water consumption (direct and indirect) to the Department of Conservation and Natural Resources (DCNR) or Department of Environmental Protection (DEP), including breakdowns by source (public supplies vs. direct withdrawals) and efficiency metrics like water usage effectiveness (WUE). This would close the gap where data centers buying from public utilities evade SRBC/DRBC scrutiny, providing data for better planning amid AI-driven growth.
- **Require Pre-Construction Disclosure of Comprehensive Water Plans:** Require data center developers to submit detailed water sourcing and usage projections

including: breakdowns for public suppliers, private wells, direct withdrawals from aquifers/rivers, or recycled sources before any permit approvals.

Promote Efficiency and Conservation

- **Set Efficiency Standards and Technology Mandates:** Establish minimum WUE thresholds (e.g., under 1.8 liters per kWh) for new or expanding facilities, mandating adoption of low-water cooling like closed-loop systems (reducing evaporation by 50-70%), immersion cooling, or hybrid air-dry modes. Tie this to DEP permits, with phased implementation for existing centers, drawing from SRBC's 2025 encouragement² of such tech via faster approvals but making it binding statewide to cover non-basin areas.
- **Incentivize Advanced Conservation Practices:** Link tax exemptions/credits to verifiable water savings, such as using recycled wastewater, rainwater harvesting, or co-location with treatment plants.

Protect Public Water Supplies and Private Wells

- **Strengthen Local and Community Safeguards:** Require pre-application meetings with local officials and residents, incorporating water impact assessments that evaluate cumulative effects on public systems and wells. Allow municipalities to deny permits if capacity is insufficient, and create a fund (similar to HB 1834's LIHEAP enhancement) for water infrastructure upgrades or well remediation, funded by data center tax or fees.
- **Impose Withdrawal Caps and Drought Protections:** Authorize DEP or PUC to set caps on consumptive use during low-flow periods, prioritizing essential needs over data centers (as DRBC already considers), and require offset measures like evaporation mitigation or aquifer recharge. For private wells, mandate buffer zones or monitoring in high-risk areas, with developers funding this monitoring and any related studies.
- **Establish Oversight and Enforcement Mechanisms:** Assign PUC or a new task force to enforce these rules, with penalties for non-compliance and regular audits.

The Value of Water in the Commonwealth

In Pennsylvania, water is generally treated as a public resource with costs that reflect operational expenses for supply, treatment, and infrastructure rather than its full environmental or scarcity value. This often leads to undervaluation, especially for large

² <https://www.srbc.gov/regulatory/policies-guidance/docs/draft-updated-use-dry-cooling-technology.pdf>

industrial users like data centers, where fees and rates are minimal compared to the resource's long-term sustainability costs and impacts, like aquifer depletion, ecosystem harms, or drought resilience.

For example, a data center withdrawing 100,000 gallons per day (gpd) for surface/groundwater withdrawals or 20,000 gpd for consumptive use would require approvals from the relevant basin commissions.

For projects needing approval from the Delaware River Basin Commission (DRBC), there are fairly low application fees and annual monitoring fees. The water supply charges are a mere \$105 per million gallons for consumptive use³ and \$1.05 per million non-consumptive use. For a 100,000 gpd consumptive withdrawal, this might total \$2,000-5,000 annually. Keep in mind 100,000 gpd is 36.5 million gallons per year.

For projects needing approval from the Susquehanna River Basin Commission (SRBC), costs are similarly low. There are application fees, an annual compliance fee, and consumptive use mitigation fee. Annual cost for a project needing 100,000-249,000 gpd falls between \$5,000 - \$15,000.

If hyperscale data centers become widespread in the state, they could pay pennies per gallon while potentially straining local water resources. These low rates subsidize high-volume industrial operations, often at the expense of residential ratepayers and long-term sustainability, and can exacerbate challenges like drought and cumulative demand pressures.

Current fees and rates have not kept pace with inflation, rising demand, or the increasing scale of water-intensive developments. As Pennsylvania sees growing interest in data center projects with dozens proposed, this undervaluation should be addressed to better reflect water's true societal and ecological value.

To address undervaluation, Pennsylvania could pursue reforms such as:

- **Tiered or scarcity-based pricing:** Introduce escalating fees for withdrawals over certain thresholds (e.g., 100,000 gpd), with surcharges during low-flow periods.
- **Evaluate current thresholds:** Consider lowering current thresholds or modernize the existing approval framework to account for clustered projects and cumulative impacts.

³ Consumptive water use removes water from the local ecosystem (e.g., irrigation, drinking, evaporation), making it unavailable for reuse, while non-consumptive use returns most water to the source for other uses, maintaining water quantity in the system. The key difference is whether the water is permanently lost or can be returned to the source, either directly or after treatment.

- **Statewide water fund contributions:** Require large users to pay modest per-gallon fees (e.g., \$0.01-0.05 for consumptive portions), generating revenue for statewide priorities.
- **Link incentives to efficiency:** Link tax credits to low-consumptive technologies.
- **Market mechanisms:** Pilot withdrawal rights auctions in stressed basins to let demand reflect true value.

Additional revenue from these changes could fund:

- Infrastructure upgrades (e.g., leak repairs, dam maintenance,) to benefit all users.
- Conservation efforts, such as aquifer recharge or wetland restoration.
- Community support, including subsidies for residential efficiency or drought relief.

I also want to bring attention to a possible source of localized air pollution: diesel backup generators at large data centers.

Backup power is essential for reliability and safety, but the technology choices made today will shape local air quality outcomes for decades. Pennsylvania has an opportunity to learn from other states and encourage cleaner solutions without compromising reliability.

Backup Diesel Generators and Air Quality Impacts

Large facilities such as data centers rely on diesel generators for emergency power and this equipment is also routinely tested⁴. While these generators operate infrequently, when they do run they can emit disproportionately high levels of Nitrogen Oxides (NOx), which contribute to ozone and smog and fine particulate matter (PM2.5), which is linked to asthma, cardiovascular disease, and premature death.

⁴ The National Fire Protection Association 110 Standards for Level 1 generators require running the generator monthly for at least 30 minutes at 30% or more of its rated load to burn off carbon buildup and prevent engine wet stacking. If it fails to meet the 30% minimum load requirement in monthly tests, the NFPA requires annual load bank testing for generators. This annual test is conducted for a total of 90 continuous minutes as follows:

- 30 minutes with a connected load of at least 50% of nameplate rating
- 60 minutes with a connected load of at least 75% of nameplate rating

These impacts are increased where multiple facilities cluster or where generators are located near homes, schools, or sensitive populations. Importantly, these emissions occur regardless of whether the facility's primary operations are otherwise clean and efficient.

In most cases, new data centers install new generators, but "new" does not necessarily mean cleanest available. Because backup generators are regulated differently from continuously operating engines, many new facilities legally install generators that meet older EPA emissions tiers, typically Tier 2 or Tier 3⁵. These standards are significantly less stringent than today's cleanest diesel technologies.

This occurs because:

- Emergency generators are subject to different regulatory pathways than non-road or mobile engines and non-emergency generators
- Developers prioritize reliability and cost, and often select the minimum emissions standard required
- Manufacturers continue to offer Tier 2 and Tier 3 engines because they remain legal and widely accepted for standby use

As a result, new facilities may lock in higher emissions for 20–30 years, even though cleaner alternatives are available.

Tier 4 Engines: What They Are and Why They Matter

Tier 4 is the U.S. Environmental Protection Agency's most stringent emissions standard for diesel engines. Compared to older diesel engines, Tier 4 engines/generators achieve approximately 90% or greater reductions in NOx and 90% or greater reductions in particulate matter.

These reductions are achieved through a combination of advanced engine design, diesel particulate filters (DPFs) that trap and remove soot, selective catalytic reduction

⁵ EPA Diesel Emission Tiers: Both second and third tiers introduced stricter regulations beginning in 1998 with Tier 2. This phase addressed carbon monoxide, unburned hydrocarbons and NOx along with emitted particulate matter (PM). While Tier 2 covered engines of all sizes manufactured between 2001 and 2005, Tier 3 was specific to engines with 50 to 750 hp. Tier 3 further restricted exhaust emissions and was implemented from 2006-2008.

(SCR) systems that chemically reduce NOx emissions and the use of ultra-low sulfur diesel fuel.

Tier 4 Final engines are widely used in other sectors, including construction, agriculture, and heavy transportation, and are proven to dramatically improve local air quality. However, Tier 4 engines typically cost more upfront and involve more complex emissions control systems. For emergency power applications, these factors can discourage adoption unless incentives are provided.

Some states and facilities achieve similar emissions reductions without requiring a fully certified Tier 4 engine by combining a Tier 2 or Tier 3 engine plus advanced after-treatment controls, including: diesel particulate filters (DPFs) selective catalytic reduction (SCR), and oxidation catalysts.

When properly designed and maintained, these systems can deliver Tier 4-equivalent emissions performance, particularly for NOx and particulate matter. This approach allows flexibility for facilities that want a specific base engine for reliability reasons while still achieving strong air quality outcomes.

How Other States Are Addressing Backup Generator Emissions

Oregon has established a streamlined air permitting pathway for data centers that install Tier 4 or Tier 4-equivalent backup generators. Facilities that commit to lower emissions benefit from faster permitting and reduced regulatory complexity.

California, through its air districts, applies stringent New Source Review and Best Available Control Technology requirements to large generator installations in non-attainment areas, often resulting in Tier 4-level performance or advanced emissions controls. California also imposes strict limits on generator run-time and testing, particularly during ozone season.

Several states participating in federal and state diesel emissions reduction programs have used grant funding to support cleaner engines and advanced emissions controls, including diesel particulate filters and selective catalytic reduction systems.

Policy Opportunities for Pennsylvania

Pennsylvania has several options to reduce diesel generator emissions while maintaining reliability:

Strengthen DEP air permitting for data centers

- Ensure DEP treats large data centers with substantial backup fleets as presumptively subject to air quality plan approvals and, if emission thresholds are approached, major-source NSR⁶, with explicit authority and direction to apply BACT⁷/LAER⁸ to diesel backup generators at large multi- unit campuses.
- Require DEP to consider cumulative emissions from co-located generators at a data-center site when determining whether NSR applies, so projects cannot avoid more stringent review by dividing emissions into many smaller permits.

Codify tighter run-time and testing limits

- Set statewide “floor” standards for emergency generator testing and non-emergency operation at large data centers (e.g., lower annual hour caps, staggered run times, daytime testing restrictions, ozone-season testing limits, prohibit testing on poor air quality days), while allowing DEP or local programs to tighten further in non-attainment or sensitive areas.
- Require monitoring, recordkeeping, and public reporting of run hours and emissions for data-center backup fleets above a certain size, with clear enforcement tools for violations.

Guide BACT toward cleaner technologies

- Authorize DEP, in its NSR/BACT determinations for large data-center projects, to treat Tier 4-equivalent controls (or cleaner) as the default benchmark for new diesel backup generators, with deviations allowed only on a documented showing of technical or economic infeasibility.
- Encourage or require DEP to evaluate non-diesel alternatives (natural gas, hybrid battery-diesel systems, or other lower-emission options) as part of BACT for data centers above a defined size, while stopping short of a categorical technology ban.

Use siting and zoning tools

⁶ New Source Review: A federal Clean Air Act program requiring permits and pollution controls for new or significantly modified major industrial sources to protect air quality.

⁷ Best Available Control Technology, a federal Clean Air Act term requiring new or modified major pollution sources to use the most effective emission reduction methods, considering economic and environmental impacts.

⁸ Lowest Achievable Emission Rate, is the strictest air pollution control standard for new or modified major industrial sources in areas not meeting national air quality goals (nonattainment areas) under the U.S. Clean Air Act, requiring the best available technology or lowest limit from any state's plan, regardless of cost.

- Amend the Municipalities Planning Code to give local governments explicit authority to classify large data centers as industrial uses, impose setbacks and buffering for generator yards, and adopt noise and air-quality-related site standards tied to backup generation.
- Allow municipalities, in coordination with DEP, to designate “sensitive” or already stressed airsheds where large backup systems face enhanced review or must meet stricter conditions to obtain local land-use approvals.

Link incentives and rates to cleaner backup strategies

- Condition any state tax incentives or “green data center” benefits on the use of batteries or other zero-emission demand management and backup solutions.

Thank you for the opportunity to provide this testimony.

Appendix A

State	Key Restrictions	Effective/Phase-Out Dates
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Alaska	Bans non-permitted use/storage; mandatory discharge reporting as hazardous	Immediate/enacted
Arizona	Bans training/testing without full containment; state take-back program	Enacted
Arkansas	Bans training/testing discharges without containment	Enacted
California	Full ban on manufacture/sale/distribution/use (exceptions limited); training ban; mandatory use reporting	Various (2020–2022 onward)
Colorado	Bans training/testing; bans sale/distribution (exceptions); take-back program; mandatory reporting	2020–2023
Connecticut	Bans training/testing; emergency use only until alternatives; take-back program	Enacted (phase-out complete)
Georgia	Limits to emergencies; proposed full phase-out	Enacted (partial)
Hawaii	Full ban on sale/distribution/use for training; mandatory recall/reimbursement	2024
Illinois	Bans training/testing; sale/distribution ban; take-back program	2025 onward
Indiana	Bans training/testing without containment	Enacted
Kentucky	Bans training/testing without best practices/containment	Enacted
Louisiana	Limits use/discharge to emergencies only	Enacted
Maine	Bans training/testing; broad sale bans by 2030 unless unavoidable; specific property bans	2026–2030
Maryland	Bans training/testing and most sale/distribution (exceptions)	2024
Massachusetts	Take-back program; discharge notification	Ongoing
Michigan	Bans training/equipment testing (exceptions); collection program; mandatory reporting	Enacted (training ban complete 2023)
Minnesota	Bans training/testing discharges (exceptions); proposed airport restrictions	2024 onward

Nevada	Mandatory containment/reporting for any discharge/use	Enacted
New Hampshire	Bans training/testing; sale/distribution ban (exceptions); take-back program	2020 onward
New Jersey	Bans training/testing without containment; take-back program	2026
New Mexico	Sale/distribution ban	2027
New York	Bans training; sale/distribution restrictions (exceptions); mandatory reporting	2020 onward
North Carolina	Inventory requirements; proposed training bans	Enacted (inventory)
Ohio	Bans training/testing without containment; collection program; proposed sale ban	Enacted (partial); 2027 proposed
Oregon	Full use ban for fire departments (exceptions for federal requirements)	July 2026
Rhode Island	Bans training discharges and sale/distribution; mandatory reporting	2025
Vermont	Bans training; sale/distribution ban (exceptions); disposal assistance	2023–2024
Virginia	Bans training discharges (exceptions); testing requires containment	Enacted
Washington	Bans training; sale/distribution ban (exceptions); collection program	2020 onward
West Virginia	Limits discharge/use (exceptions for emergencies)	Enacted
Wisconsin	Bans training/testing without containment; mandatory notification	Enacted