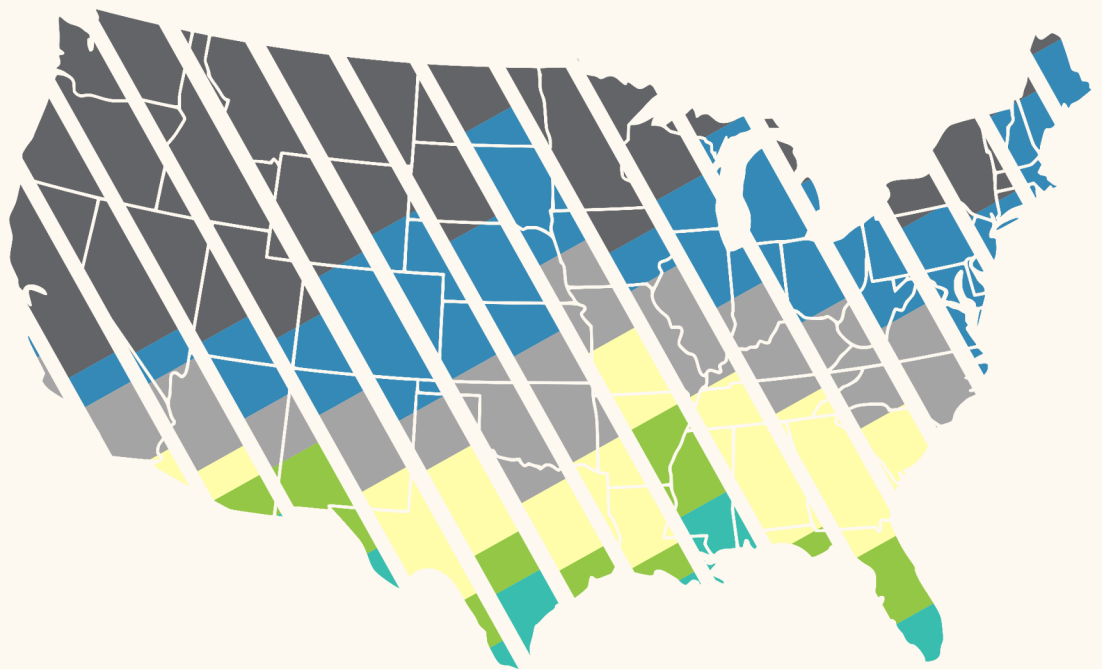




The State Energy &
Environmental Impact Center
NYU School of Law

300 and Counting:

State Attorneys General
Lead the Fight for Health
and the Environment



December, 2019

Copyright © 2019 by the State Energy and Environmental Impact Center.
All rights reserved.

State Energy and Environmental Impact Center
NYU School of Law
<https://www.law.nyu.edu/centers/state-impact>

The primary authors of this report are the State Energy and Environmental Impact Center's Executive Director David J. Hayes, Deputy Director Elizabeth Klein, Staff Attorney Hampden Macbeth, Clean Energy Attorney Jessica R. Bell, Communications Director Tom Lalley and Program Assistant Sydney Colopy. Report and graphics designed by the Center's Research & Communications Specialist Stephen Read.

This report does not necessarily reflect the views of NYU School of Law.

Executive Summary

Since taking office, the Trump administration has engaged in a concerted, across-the-board attempt to weaken many of our nation's bedrock health, safety and environmental laws. Unless stopped, these efforts will have profound consequences:

- ▶ The adverse impacts of climate change — including severe property damage and loss of life — will accelerate;
- ▶ Our air and water quality will decline, hitting the most vulnerable Americans especially hard;
- ▶ Oil and gas and other private, extractive industrial activities will be prioritized over conservation, recreation and wildlife uses of our public lands and offshore ocean resources;
- ▶ Our communities will be exposed to dangerous chemicals and major industrial disasters.

State attorneys general have mounted a vigorous defense against the administration's assaults on our environmental, climate and clean energy values. Since the start of the Trump administration, state attorneys general have taken 300 actions to advance laws and policies covering air, water, toxics, clean energy and other environmental issues. They have exposed the administration's efforts for what they are: unsupportable, poorly reasoned attempts to twist the law and the facts so that fossil fuel and other industry interests can shift climate and conventional pollution risks to the rest of us, typically under the false guise of harmless "deregulatory" actions.

Thankfully, state attorneys general have created an effective defensive shield that, to date, has blunted the worst of the administration's anti-environmental agenda. Out of 28 environmental cases tracked by the NYU Institute for Policy Integrity, for example, the administration has won only once.¹ But the most significant battles are now getting underway. More danger lies ahead; the fight is far from over.

To assist interested parties in keeping track of the important work of attorneys general on clean energy, climate and environmental matters, this report announces the launch of a searchable "[Attorney General Actions](#)" database that will enable users to more easily access and review the 300 significant regulatory and legal actions undertaken by attorneys general.

This report also culls representative actions from the large body of state attorney general activity in the clean energy, climate and environmental arena. Our goal is not to cover the waterfront, but instead to highlight some of the administration's most serious assaults on our environmental values and key actions that attorneys general are taking in response. To do so, the report presents short takes on six major topics:

- ▶ The Failure to Confront Climate Change
- ▶ The Reversion to Dirtier, Unhealthy Air Quality
- ▶ The Weakening of Clean Water Protections
- ▶ The Exploitation of Our Public Lands & Wildlife
- ▶ The Undermining of Clean Energy & Energy Efficiency
- ▶ The Failure to Keep Americans Safe from Chemical Accidents and Dangerous Toxics

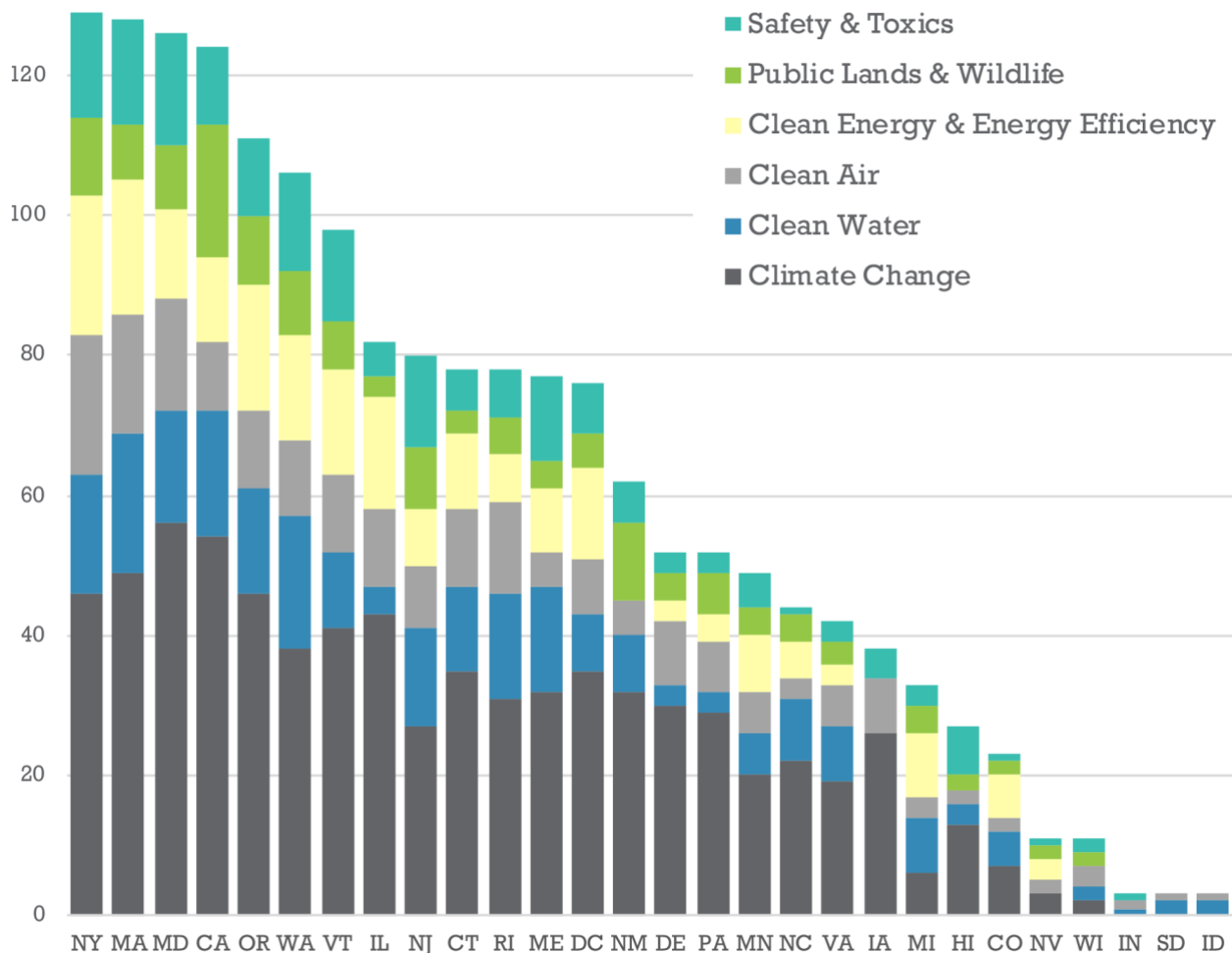
New Attorney General Actions Database

As the Trump administration pursues an agenda of watering down or outright repealing clean energy, climate, environmental, and health and safety rules, state attorneys general have served as a critical first line of defense. Since the start of the Trump administration, state attorneys general have taken 300 actions to advance laws and policies covering air, water, toxics, clean energy and other environmental issues. See Figure 1. This includes everything from detailed comments on proposed rules to multistate lawsuits.

To help explain the scope and importance of the growing body of work of attorneys general, the State Impact Center has launched a new online database that is sortable in five categories — by state, targeted agency, issue, action type and associated document type. The database is updated regularly and includes background information about each action and links to relevant documents.

Explore the Attorney General Actions database at law.nyu.edu/centers/state-impact/ag-actions.

Figure 1. Actions by State

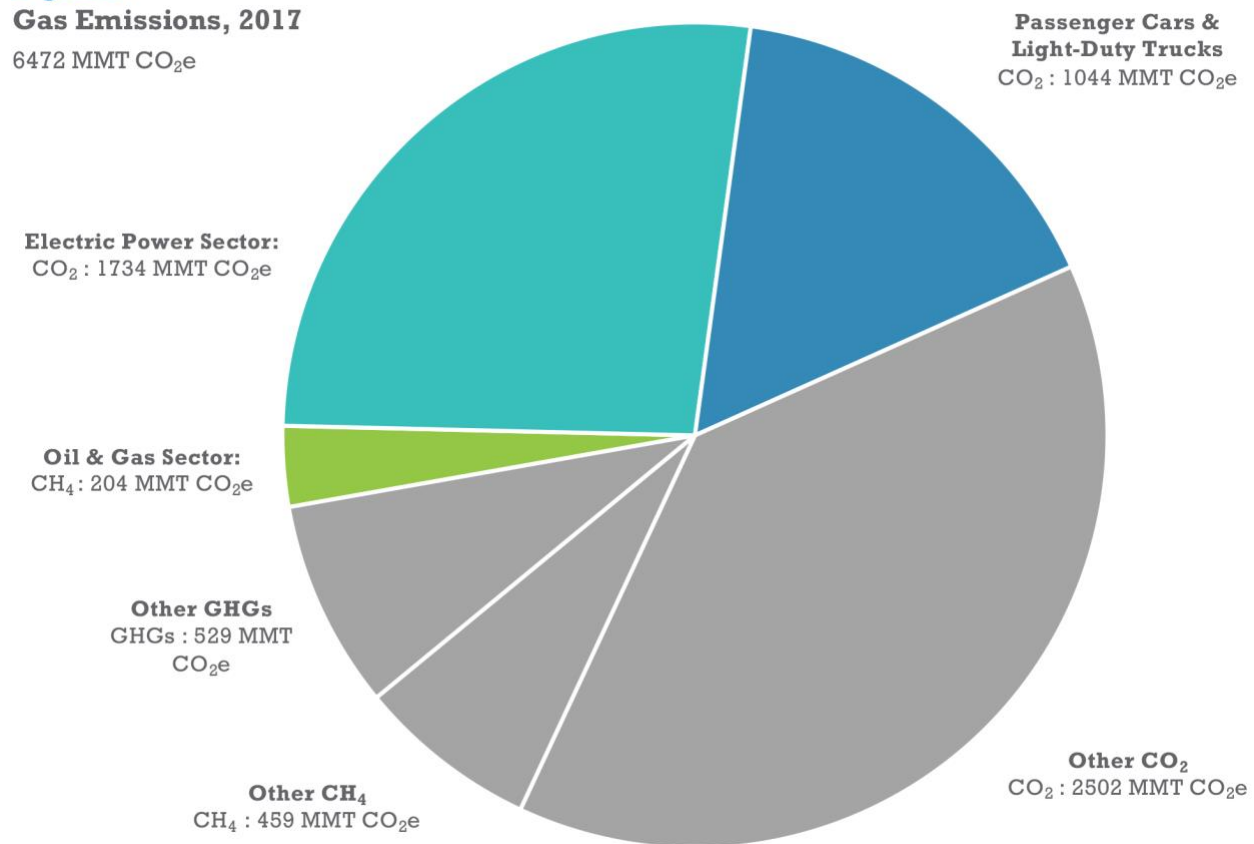


The Failure to Confront Climate Change

Thanks to final actions taken by the prior administration, Clean Air Act obligations to reduce the U.S.' greenhouse gas (GHG) emissions have kicked in for three of the largest sources of GHG emissions in the United States: (1) the electric power sector; (2) passenger cars and light-duty trucks; and (3) the oil and gas sector. **Combined, these three sources account for nearly half of all U.S. greenhouse gas emissions.** See Figure 2.²

Figure 2. U.S. Greenhouse Gas Emissions, 2017

6472 MMT CO₂e



Rather than following through on current legal requirements to combat climate change by reducing emissions from the three major sources of almost half of U.S. greenhouse emissions, the Trump administration is irresponsibly doing the opposite. The administration has stopped scheduled reductions and is in the process of turning the regulatory dial the wrong way, opening the door to significant **increased** greenhouse gas emissions from this huge slice of the U.S. economy.

State attorneys general have mounted multiple administrative and judicial challenges to the administration's attempts to avoid required reductions in greenhouse gas emissions. These battles are reaching a crescendo as the administration moves forward with replacement plans that will materially increase, rather than reduce, GHG emissions. Within the past few months, for example, state attorneys general have filed court actions challenging the legality of the Trump administration's replacement of the Clean Power Plan³ (covering power industry emissions) and its revocation of the California waiver⁴ (impacting car emissions). State attorneys general also have filed extensive objections to final agency proposals regarding proposed rollbacks for nationwide car emissions standards⁵ and methane emissions from the oil and gas industry.⁶

The following graphics illustrate what is at stake:

- ▶ **In the power sector**, the Environmental Protection Agency (EPA) has abandoned the Clean Power Plan which, based on an updated estimate, would have reduced greenhouse gas emissions from coal-fired power plants by 37% — or **641 million metric tons** of carbon pollution — by 2030.⁷ In contrast, the EPA’s replacement plan (the so-called Affordable Clean Energy plan) includes only minimal restrictions which will likely prolong the life of fossil fuel plants and lead to net emissions increases.⁸ See Figure 3.⁹
- ▶ **In the oil and gas sector**, where powerful methane emissions are contributing an outsized adverse impact on the climate, the Interior Department has killed regulations that would have reduced methane emissions from oil and gas operations on public lands, and the EPA is in the process of removing methane-specific emissions restrictions on new oil and gas sources, while it continues to ignore legally-required reductions on methane emissions from existing sources.¹⁰ Methane emissions increases resulting from the EPA rollbacks (for new sources) and inaction (on existing sources) will total 4.3 million tons of methane in 2025,¹¹ which translates to an annual increase of **107.5 MMT CO₂e** in 2025 (based on the EPA’s 100 year global warming potential conversion factor) or **374 MMT CO₂e** in 2025 (based on a more accurate, 20 year conversion factor).¹² See Figure 4.¹³
- ▶ **With regard to cars and trucks**, the EPA has announced that it is abandoning reductions in tailpipe emissions that were put in place by mutual agreement among the federal government, the state of California and the auto industry in 2012, and that are scheduled to continue through 2025.¹⁴ Consistent with its interest in enabling greenhouse gas emissions from the auto sector to increase, rather than decrease, as required by law, the EPA: (1) has revoked California’s right to set stricter tailpipe standards for it and other states that choose to adopt them;¹⁵ and (2) has proposed a replacement rule that would roll back currently-scheduled emissions reductions by freezing scheduled efficiency improvements. Together, these actions would trigger an estimated cumulative increase in carbon pollution of **1,055** (high oil price) **to 1,317** (low oil price) **million metric tons** over the lives of model years 2020-2035.¹⁶ See Figure 5.¹⁷

Figure 3. Increase in Annual CO₂ Emissions Due to Power Sector Rollback

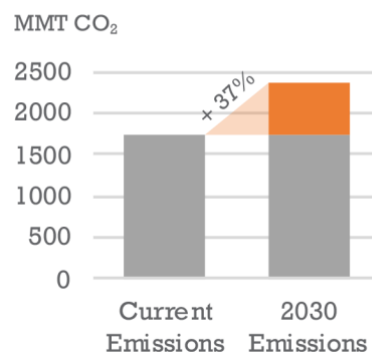


Figure 4. Increase in Annual CH₄ Emissions Due to Oil & Gas Sector Rollback

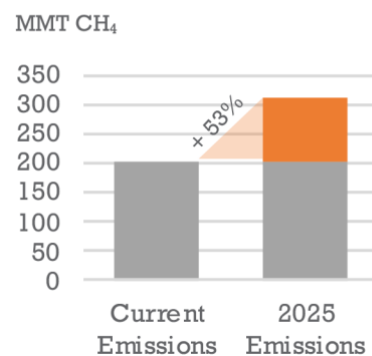
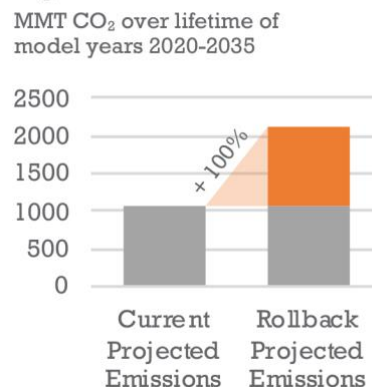


Figure 5. Increase in CO₂ Emissions Due to Cars & Light Trucks Rollback



In sum, by facilitating *increases* in greenhouse gas emissions from three of the largest sources of emissions in the U.S., rather than *reducing* such emissions, as required by law, the administration is ignoring the climate change threat, and turning its back on readily available, legally required mechanisms to reduce emissions from nearly half of U.S. sources. Instead, it is recklessly adding tens of millions of additional tons of greenhouse gases that future administrations will need to remove before they can even begin making any forward progress in addressing the climate crisis. State attorneys general will fight to the finish to stop these illegal GHG emissions increases.

The Reversion to Dirtier, Unhealthy Air Quality

Clean air protections are a major target of the Trump administration. Its actions threaten to undercut decades of progress under the Clean Air Act, to the detriment of public health and the environment. State attorneys general are actively opposing these efforts, in particular the administration's attempts to weaken standards for airborne toxics (including, in particular, small particulates) and smog-forming ozone, and to ignore the public health harms caused by exposure to pollution from upwind states.

The air we breathe has gotten dirtier and more dangerous to our health during the Trump administration. In 2017, more than 25 million Americans had asthma, and more than 3,500 Americans died from asthma that same year. See Figure 6¹⁸ and Figure 7.¹⁹

- ▶ **Since 2016, nationwide levels of fine particulate matter pollution (PM_{2.5}) has spiked 5.5 percent.**²⁰ See Figure 8.²¹ PM_{2.5} are tiny pollution particulates — one-thirtieth the size of a human hair — that travel deep into the respiratory tract, reaching the lungs and causing a wide range of serious health problems, including asthma, heart disease and increased mortality from lung cancer.²² Indeed, the 5 percent increase in PM_{2.5} has been associated with nearly 10,000 premature deaths. See Figure 9.²³

Figure 6. Americans Living with Asthma

2017 — 25,191,000 people

👤 = 100,000 people

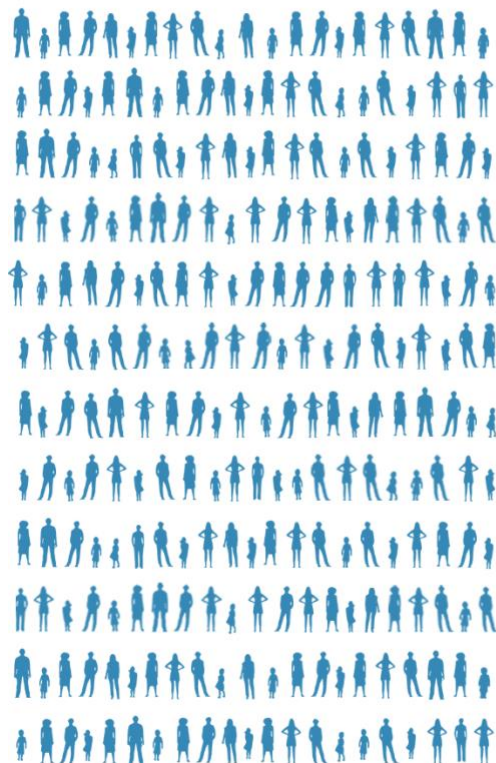


Figure 7. Deaths Caused by Asthma

2017 — 3,564 premature deaths

👤 = 100 people



Figure 9. Deaths Associated

With 5% Increase in PM_{2.5}

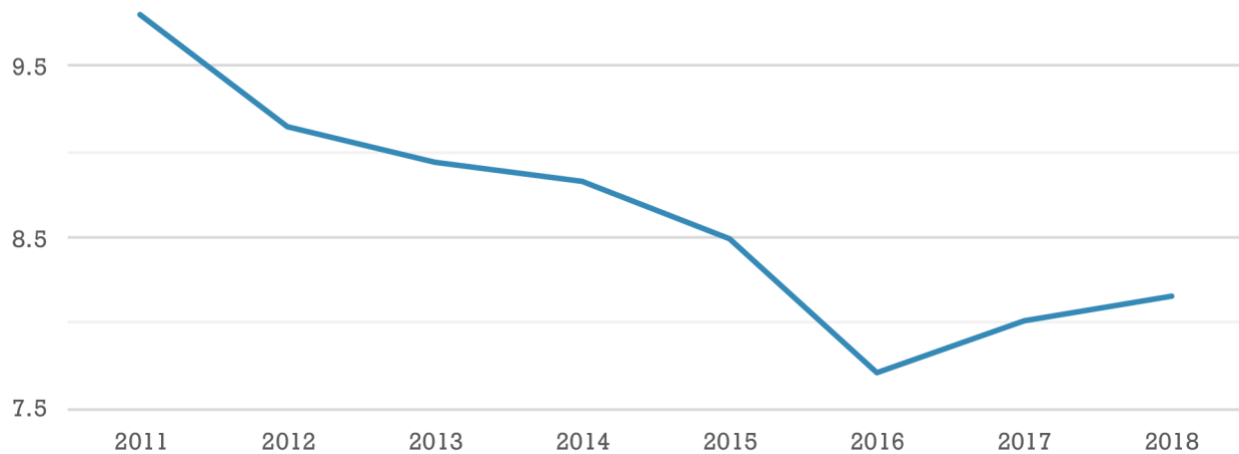
2016-2018 — 9,700 premature deaths

👤 = 100 people



Figure 8. Fine Particulate Matter (PM_{2.5})

µg/m³, national average



- ▶ **Ozone pollution, which causes smog, has also been increasing under the Trump administration.**²⁴ It causes serious health problems, including asthma, cardiovascular disease and stroke.²⁵

Our air will continue to get dirtier as the Trump administration rolls back long-standing Clean Air Act regulations. For instance:

- ▶ Even though particulate pollution poses one of the most severe health risks of any air pollutant, the EPA has proposed to disallow consideration of these health impacts in future rulemakings.²⁶ Likewise, the EPA is revising its rules restricting mercury and other toxic emissions from the power industry to exclude consideration of the benefits achieved by reduced particulate pollution.²⁷
- ▶ The EPA is refusing to enforce the Clean Air Act against industrial pollution sources that are causing high levels of ozone and unhealthy smog in downwind states.²⁸ The agency also has dragged its feet on enforcing the 2015 rule that limits ozone pollution levels to 70 ppb.²⁹

State attorneys general have been leading the effort to oppose rollbacks of critical air pollution control rules:

- ▶ State attorneys general are fighting the EPA's attempt to unlawfully discount or ignore the severe health impacts of particulate pollution by: (1) disallowing reliance on peer-reviewed scientific studies that confirm severe human health risks from exposure to particulate pollution,³⁰ and (2) failing to consider the health benefits from reduced particulate pollution when regulating other pollutants under the Clean Air Act.³¹
- ▶ States attorneys general won an important court victory³² to require the EPA to force upwind states to reduce smog-forming ozone pollution that causes health problems in downwind states,³³ and are pressing courts to take further action. Attorneys general also have prevented the EPA from weakening the 2015 ozone standard,³⁴ and have forced the agency to identify areas of the country that are suffering from high levels of unhealthy ozone and smog pollution.³⁵

The Weakening of Clean Water Protections

For the last 50 years, the Clean Water Act has protected important water resources from industrial pollution and prevented the destruction of wetlands and streams. Uniform national requirements have stopped polluters and unscrupulous real estate developers from interfering with natural water systems — our lakes, rivers, streams, ponds, and wetlands — that filter and clean the drinking water that all Americans rely on.

The Clean Water Act is under attack on many fronts. The most troubling is the Trump administration's proposal to radically scale back the Clean Water Act's jurisdiction over an enormous swath of wetlands and upland waters that now receive protection from the federal government. The administration's target is the so-called "Waters of the United States" (WOTUS) rule — a 2015 reinterpretation of long-standing guidance that determines what waters receive protection under the Clean Water Act. The WOTUS rule included a modest expansion and clarification of federal jurisdiction that largely tracks guidance that dates back to the Reagan era.

The Trump administration proposed a replacement rule in February 2019 that, when finalized in the coming months, will take a meat ax to the nature and scope of waters protected under the Clean Water Act. Estimates show that the new rule will leave more than half of all of the nation's wetlands exposed to destruction, along with hundreds of thousands of miles of upland streams.³⁶

- ▶ **The proposed rule completely excludes isolated wetlands that lack a surface connection to waterways, which make up a majority of wetlands in the U.S.**³⁷ The proposal also eliminates protections for prairie potholes, western vernal pools, the Carolina and Delmarva bays, Texas coastal prairie wetlands, and pocosins, which are valuable in mitigating flooding, filtering out pollutants, and maintaining biodiversity.³⁸

51%

of wetlands will lose
Clean Water Act
protection.



- ▶ The Clean Water Act has long protected upland rivers and streams that play a key role in watershed health, including waterways that do not flow year-round — known as ephemeral streams.³⁹ These waterways will no longer receive Clean Water Act protection under the administration’s plan. **The EPA has estimated that 18 percent of all streams in the U.S. flow intermittently and will therefore lose protections under the rule, but the agency has admitted that it has not completed a survey of affected waterways.**⁴⁰ A study performed by Trout Unlimited suggests that a far larger percentage of streams, particularly in drier states, will lose protection — an illustration of just a few of those is shown below in Figure 10.⁴¹

State attorneys general have challenged the administration’s efforts to gut the 2015 Waters of the United States rule at every step of the way. State attorneys general sued the EPA for suspending the 2015 rule, submitted comprehensive comments objecting to the administration’s proposed replacement rule, and testified on the harmful effects of the proposal, which ignores science and threatens water quality, while creating an economic burden for states trying to offset upstream pollution.⁴² As nine attorneys general summarized: “A cramped, unclear, or difficult to administer definition of the waters protected by the [Clean Water] Act would not only make water quality protection harder for the States, but would ... promote a ‘race to the bottom’ in which states compete with each other by eliminating pollution controls.”⁴³

The confusion and harms associated with the administration’s withdrawal of Clean Water Act protections will be exacerbated by climate change. The increased frequency and scale of extreme weather, including both floods and droughts, is wreaking havoc on streams and wetlands. The EPA is looking to define federal jurisdiction based on “typical year” precipitation — which “would not include times of drought or extreme flooding” — even though the concept of a typical year may have little relevance going forward.⁴⁴

Figure 10. Streams Losing Protection Under the Clean Water Act in Sample States



The Exploitation of Our Public Lands & Wildlife

The Trump administration has mounted a multi-pronged assault on our nation's public lands and wildlife. In the name of promoting "energy dominance," the administration has aggressively sought to expand oil and gas drilling activity on public lands, including in frontier areas such as offshore waters in the Atlantic, Pacific and Arctic Oceans and onshore, in the pristine Arctic National Wildlife Refuge in Alaska. To encourage more oil and gas drilling on public lands, the Interior Department has overturned major royalty reforms, reopening loopholes that enable companies to avoid paying their fair share of royalties. The Interior Department has also repealed common sense environmental rules governing fracking activities on public lands. And to ensure that wildlife interests do not get in the way of industrializing our public lands, the administration has rolled back vital Endangered Species Act (ESA) protections and reversed long-standing protections for migratory birds under the Migratory Bird Treaty Act (MBTA).

State attorneys general have led the fight against this across-the-board exploitation of our public lands and wildlife. After a bipartisan coalition of state attorneys general mounted a fierce fight against offshore drilling, the administration put its plans on the back burner. And attorneys general are now in court suing the Interior Department for repealing, without justification, much-needed royalty and fracking reforms.

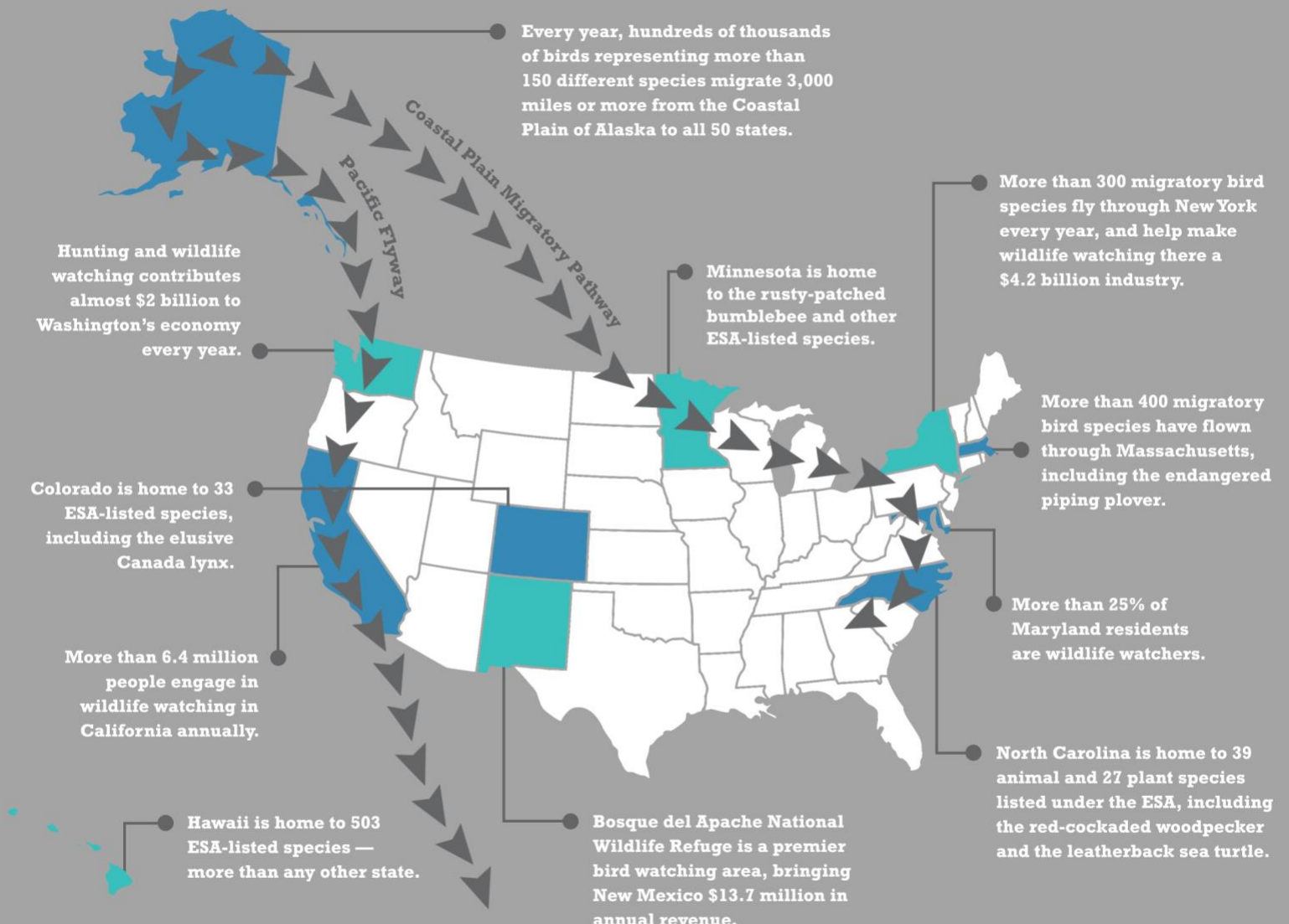
Likewise, attorneys general will not let the administration drill for oil in the pristine Arctic National Wildlife Refuge — often called "America's Serengeti"⁴⁵ — without a fight. The Arctic Refuge hosts a diverse array of wildlife including migratory birds, caribou herds and polar bears. The Coastal Plain, which has been targeted for oil drilling, is the most biologically productive part of the refuge, providing habitat for multiple species and serving as a critical stop for millions of birds that move on to all fifty states during their migratory journeys. Attorneys general objected to a woefully insufficient environmental analysis issued by the federal government and demonstrated that the administration's proposal will fail to yield promised economic revenues while significantly harming invaluable ecological resources.⁴⁶

State attorneys general are also committed to maintaining the critical biodiversity gains that the ESA, MBTA and other conservation statutes have made possible over the past several decades. States cannot fill the gaps when the federal government unlawfully walks away from its responsibilities under the ESA and MBTA. They have no ability to force neighboring states to ensure wildlife and habitat conservation. The threats to wildlife inherent in the administration's actions are also threats to the economic livelihoods of those who depend on the booming tourism and recreation economy. See Figure 11.⁴⁷

- ▶ **For decades, the ESA has protected more than 1,600 plant and animal species and has prevented the extinction of 99 percent of species listed under the Act.** State attorneys general raised significant concerns about the administration's draft proposals to weaken ESA protections. After finding their comments largely ignored, however, the attorneys general are now challenging the final rules. The administration's rule changes adversely affect the states' wildlife resources and curtail states' ability to help prevent federally-listed species from sliding further toward extinction — at the exact time when warnings abound about the ever-increasing threats to biodiversity and the risk of unprecedented species extinction worldwide.⁴⁸

- ▶ When the administration announced in 2017 that it would reverse a long-standing interpretation of the MBTA by asserting that the Act does not prohibit the incidental take of migratory birds, attorneys general stepped up to challenge the unlawful action. **The Act has been wildly successful in providing critical protections for millions of birds from injuries and death incidental to industrial activities**, and the threat of enforcement has provided strong incentive to those engaged in such activities to mitigate harm to birds through reasonable, low-cost measures. States own and hold these species in trust and benefit from the ecological services that birds provide, such as controlling insects and rodents and pollinating and dispersing seeds. Birds also provide enormous scientific and recreational benefits, the latter of which generate billions of dollars annually for states across the nation. The federal government is now walking away from its responsibilities to protect these species, at a time of reports of staggering bird species declines and significant new threats from climate change to come.⁴⁹

Figure 11. Species Protections, Recreational Interests, and Local Economies at Risk



The Undermining of Clean Energy & Energy Efficiency

Progressive states, supported by their attorneys general, have been leading the way toward a clean energy economy by promoting energy efficiency and by increasing the clean energy that state-regulated utilities must have in their portfolios. These state interests are coming into conflict with the favoritism that the Trump administration shows for incumbent fossil fuel electricity providers. A major clash lies ahead, as discussed in a report released by the Center earlier this year entitled: *State Attorneys General: Empowering the Clean Energy Future*.⁵⁰

In the meantime, the Trump administration has been waging an all-out assault on energy efficiency standards that the Energy Department (DOE) is required, by law, to impose on a variety of products. DOE's energy efficiency program has been highly successful:

- ▶ DOE has established more than **60 efficiency standards** for residential, commercial and industrial products, representing about 90 percent of home energy use, 60 percent of commercial building energy use and 30 percent of industrial energy use.⁵¹
- ▶ DOE's standards are estimated to **save the average U.S. household \$500 per year** on energy bills.⁵²
- ▶ The U.S. has avoided emissions of **three billion tons of CO₂** — equivalent to the annual CO₂ emissions from more than 631 million cars — from standards implemented since 1987.⁵³
- ▶ Efficiency standards **reduce harmful emissions** of nitrogen oxides, sulfur dioxide and mercury.⁵⁴
- ▶ Efficiency standards **create jobs and encourage innovation**.⁵⁵

The Obama administration issued new standards that were projected to increase annual savings by more than 75 percent over the next decade — the rough equivalent of the energy used by all U.S. buildings in one year — and would save consumers \$550 billion between 2009 and 2030.⁵⁶ In the name of “deregulation,” however, the Trump administration is taking the efficiency standards program in a radically different direction.

For example, in the fall of 2019, DOE rolled back rules that had expanded the definition of lightbulbs covered by efficiency standards. The rules include a wide range of commonly-used bulbs — the types of bulbs used in nearly half of all lighting sockets in the U.S. Rolling back this particularly impactful regulation will forego significant energy savings for consumers, as well as emissions reductions. See Figure 12.⁵⁷ Attorneys general have challenged DOE's rollback, including filing a petition for review of the final definition withdrawal.⁵⁸

The Trump administration has also unlawfully delayed DOE efficiency standards⁵⁹ and has proposed changes that will fundamentally impair the ability of standards to achieve their full benefits. For example, DOE has proposed to add unnecessary administrative barriers to its process for establishing and updating efficiency standards.⁶⁰ These changes include a significance threshold that standards must meet to be established or amended; had this threshold been in place originally, the U.S. would

have lost 4.24 quads of energy savings — equivalent to the annual energy usage of 44 million homes.⁶¹

These examples are only two of the many challenges brought by state attorneys general in response to energy efficiency rollbacks. Attorneys general have successfully challenged DOE delays as well. A coalition of nine attorneys general filed a petition for review of DOE’s delay of the effective date of its standard for ceiling fans,⁶² which are used in about 85 million U.S. households and can be improved by using more efficient motors and fan blades as well as adjusting the blade pitch.⁶³ DOE has since abandoned its effort to delay the effective date.⁶⁴ Another multistate coalition successfully enforced DOE’s obligation to publish its final energy efficiency standards for additional consumer products — portable air conditioners, commercial packaged boilers, uninterruptible power supplies and air compressors.⁶⁵

Figure 12. Costs of the Lightbulb Definition Rollback



80 billion
kWh by
2025

Annual electricity usage increase is equivalent to the combined usage of all households in Pennsylvania and New Jersey.



34 million
metric tons of
CO₂ by 2025

Equivalent to emissions from 7,218,684 passenger vehicles driven for one year.



Nearly \$100
per household
per year

\$12 billion in total electricity costs annually.



23,000
metric tons
of SO₂ by 2025

19,000
metric tons
of NO_x by 2025

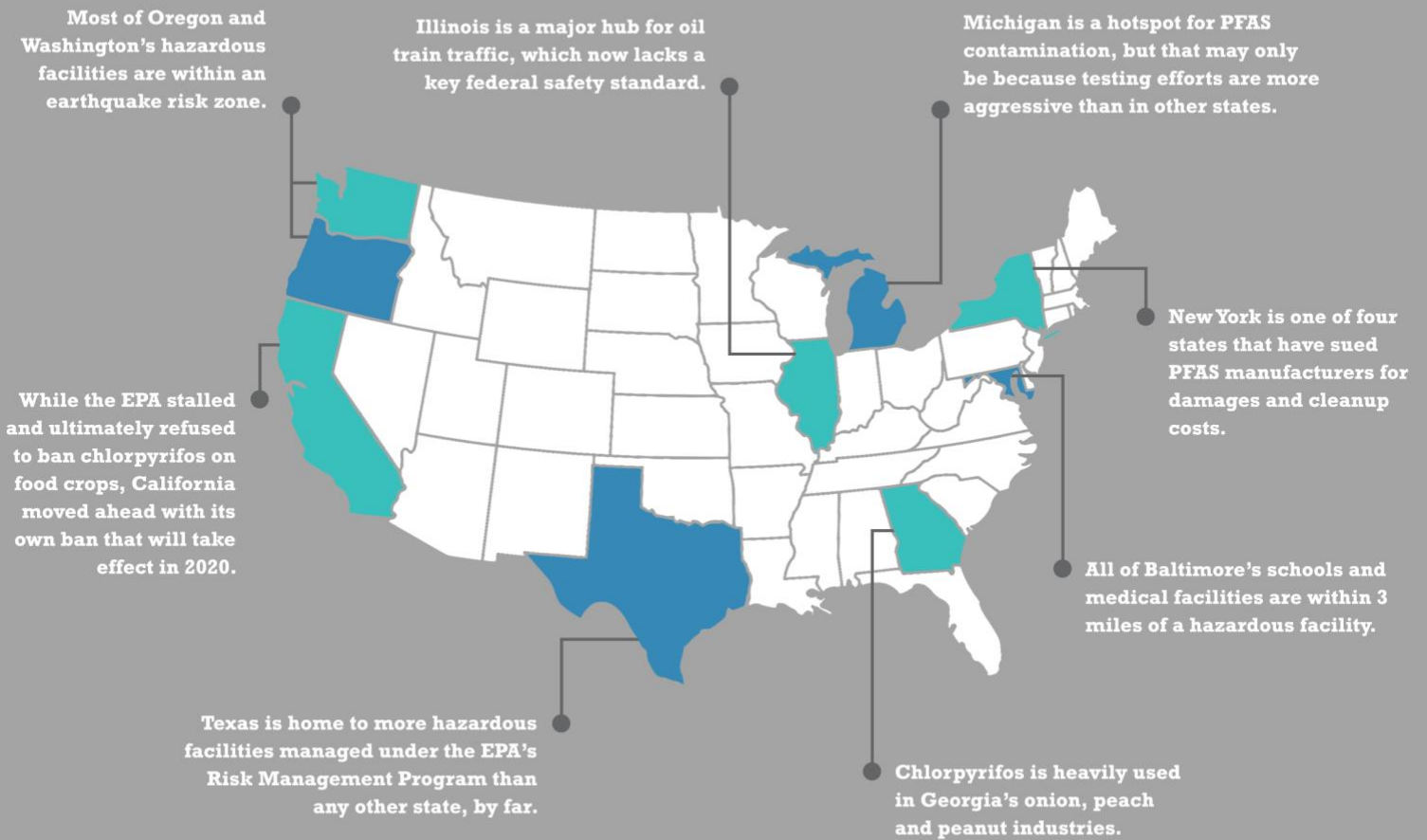
The Failure to Keep Americans Safe from Chemical Accidents and Dangerous Toxics

The federal government has the primary responsibility to protect the public from industrial accidents and harmful chemicals, ensuring that the food we eat, the water we drink and our communities are safe from toxins. The regulatory framework that has safeguarded the nation is now under attack by the Trump administration, which has continually sought to reduce or eliminate common sense compliance obligations on industry.

Nowhere is this more evident than with four basic safety issues that impact all Americans and have the potential to cause severe harm. From weakening rules that govern hazardous materials and major industrial facilities, to failing to act in the face of clear dangers posed by harmful chemicals, the Trump administration is putting Americans at increased risk. See Figure 13.⁶⁶

- ▶ **More than 40 percent of Americans live in the “Vulnerability Zone”** of one or more facilities that use or store extremely hazardous materials and are regulated under the Chemical Accident Safety Rule.⁶⁷ When the Trump administration unlawfully attempted to delay implementation of this rule, state attorneys general obtained a court order requiring the agency to implement safety improvements. The EPA then brazenly moved forward anyway to propose a new, severely weakened, rule.
- ▶ **More than 25 million Americans live within a mile of a rail line that carries crude oil**⁶⁸ — a serious explosive risk, as demonstrated by a 2013 oil train accident in Quebec that killed 47 people and leveled a small town.⁶⁹ Since 1995, the amount of crude oil carried by rail has increased by 13,309 percent.⁷⁰ Despite well-documented safety risks of transporting crude oil this way, the Trump administration has sought to roll back critical safety protections for trains that transport crude oil across the country.
- ▶ **In 2015, the EPA agreed that chlorpyrifos, the pesticide most widely used on crops, should be banned** given the confirmed risks of serious adverse health impacts.⁷¹ Despite that, the Trump administration has refused to implement the ban, placing farmworkers and consumers at risk. State attorneys general filed suit against the EPA and won,⁷² but the agency has continued to flout its responsibility to pull this dangerous pesticide off the market.
- ▶ **The drinking water for a third of Americans may be contaminated with PFAS** (per- and polyfluoralkyl chemical substances)⁷³ that have been shown to cause cancer and other adverse health effects.⁷⁴ State attorneys general have pushed the EPA to address this public health threat by updating screening levels and preliminary remediation goals, establishing a drinking water standard for PFAS chemicals and designating PFAS chemicals as “hazardous substances” to facilitate their cleanup. The EPA continues to delay action, compromising the safety of millions of Americans and causing bipartisan frustration in Congress and the states.

Figure 13. Chemical Accident and Toxic Exposure Threats



Endnotes

- ¹ *Roundup: Trump-Era Agency Policy in the Courts*, INST. FOR POLICY INTEGRITY (last updated Nov. 6, 2019), <https://policyintegrity.org/deregulation-roundup/>.
- ² U.S. ENVTL. PROT. AGENCY, INVENTORY OF GREENHOUSE GAS EMISSIONS AND SINKS (2017), <https://www.epa.gov/sites/production/files/2019-04/documents/us-ghg-inventory-2019-main-text.pdf>.
- ³ See *Clean Power Plan*, STATE ENERGY & ENVTL. IMPACT CTR., <https://www.law.nyu.edu/centers/state-impact/issues/climate-action/clean-power-plan> (last visited Nov. 21, 2019).
- ⁴ See *Clean Car Standards*, STATE ENERGY & ENVTL. IMPACT CTR., <https://www.law.nyu.edu/centers/state-impact/issues/climate-action/clean-car-standards> (last visited Nov. 21, 2019) [hereinafter *Clean Car Standards Narrative*].
- ⁵ *Id.*
- ⁶ See *Oil and Gas Industry Methane Emissions*, STATE ENERGY & ENVTL. IMPACT CTR., <https://www.law.nyu.edu/centers/state-impact/issues/climate-action/oil-and-gas-industry-methane-emissions> (last visited Nov. 21, 2019) [hereinafter *Oil and Gas Industry Methane Emissions Narrative*].
- ⁷ Kathy Fallon Lambert et al., *Carbon Standards Re-Examined: An Analysis of Potential Emissions Outcomes for the Affordable Clean Energy Rule and the Clean Power Plan* (July 18, 2019) (working paper) (on file with Harv. Univ. Ctr. for Climate, Health, and the Glob. Env't), https://cdn1.sph.harvard.edu/wp-content/uploads/sites/2343/2019/07/Carbon-Standards-Re-Examined_Final1.pdf.
- ⁸ *Id.*
- ⁹ Lambert, et al., *supra* note 7.
- ¹⁰ See *Oil and Gas Industry Methane Emissions Narrative*, *supra* note 6.
- ¹¹ See MEMO: MODELED IMPACTS FROM EPA METHANE ROLLSBACKS, CLEAN AIR TASK FORCE (2019), <https://www.catf.us/wp-content/uploads/2019/11/CATF-EPA-rollback-memo.pdf>.
- ¹² See *id.*
- ¹³ *Id.*; *Greenhouse Gas Equivalencies Calculator*, U.S. ENVTL. PROT. AGENCY, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator> (last visited Nov. 21, 2019).
- ¹⁴ See *Clean Car Standards Narrative*, *supra* note 4.
- ¹⁵ *Id.*
- ¹⁶ See Emily Wimberger & Hannah Pitt, *Come and Take It: Revoking the California Waiver*, RHODIUM GROUP (Oct. 28, 2019), <https://rhg.com/research/come-and-take-it-revoking-the-california-waiver/> (these estimates assume a freeze in emissions standards, per the draft rule; the estimates will change slightly if the final rule includes a small reduction in annual efficiency standards).
- ¹⁷ *Id.*
- ¹⁸ *Most Recent National Asthma Data*, CTR. FOR DISEASE CONTROL AND PREVENTION (last updated May 2019), https://www.cdc.gov/asthma/most_recent_national_asthma_data.htm.
- ¹⁹ *Id.*
- ²⁰ Nadja Popovich, *America's Air Quality Worsens, Ending Years of Gains, Study Says*, N.Y. TIMES (Oct. 24, 2019), <https://www.nytimes.com/interactive/2019/10/24/climate/air-pollution-increase.html>.
- ²¹ *Particulate Matter (PM 2.5) Trends*, U.S. ENVTL. PROT. AGENCY, <https://www.epa.gov/air-trends/particulate-matter-pm25-trends> (last visited Nov. 21, 2019).
- ²² *Fine Particles (PM 2.5 Questions and Answers)*, N.Y. DEP'T OF HEALTH (revised Feb. 2018), https://www.health.ny.gov/environmental/indoor/air/pmq_a.htm.
- ²³ *Recent Increase in Fine Particulate Matter Associated with More Premature Deaths in US*, EUREKALERT! (Oct. 21, 2019), https://www.eurekaalert.org/pub_releases/2019-10/cmu-rii102119.php.
- ²⁴ *Ozone Trends*, U.S. ENVTL. PROT. AGENCY, <https://www.epa.gov/air-trends/ozone-trends#oznat> (last visited Nov. 21, 2019).
- ²⁵ *Ozone*, AM. LUNG ASSOC., <https://www.lung.org/our-initiatives/healthy-air/outdoor/air-pollution/ozone.html> (last visited Nov. 21, 2019).
- ²⁶ The EPA is advancing an update to its so-called Secret Science proposal that would prohibit the EPA from considering peer-reviewed studies in rulemaking whenever the study data cannot be released due to medical

privacy and that would apply retroactively, discounting foundational air pollution peer-review studies, such as the Harvard Six Cities study, in redoing air pollution rules. Supplemental Notice of Proposed Rulemaking, Strengthening Transparency in Regulatory Science (to be codified at 40 C.F.R. pt. 30), <https://int.nyt.com/data/documenthelper/6438-epa-science-rule/0056cd3a5a080415e713/optimized/full.pdf> (pre-Federal Register publication of Supplemental Notice as provided to *New York Times*); see also Douglas W. Dockery, *An Association Between Air Pollution and Mortality in Six U.S. Cities*, 329 NEW ENGLAND J. MED. 1753 (1993).

²⁷ National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—Reconsideration of Supplemental Finding and Residual Risk and Technology Review, 84 Fed. Reg. 2670 (proposed Feb. 7, 2019) (to be codified at 40 C.F.R. pt. 63) (proposed rule reversing the finding that it is “appropriate and necessary” for the EPA to regulate hazardous air pollutants from power plants under the Clean Air Act in the EPA’s Mercury and Air Toxics Standards (MATS) rule).

²⁸ Determination Regarding Good Neighbor Obligations for the 2008 Ozone National Ambient Air Quality Standard, 83 Fed. Reg. 65,878 (Dec. 21, 2018) (to be codified at 40 C.F.R. pt. 52).

²⁹ New York et al., Notice of Intent to Sue for Failure to Issue Designations for 2015 Ozone National Ambient Air Quality Standards (Oct. 5, 2017).

³⁰ New York et al., Comment Letter on Proposal to Limit Use of Scientific Evidence in Rulemaking (Aug. 16, 2018) (state comments in opposition to the EPA’s 2018 so-called Secret Science proposal).

³¹ Massachusetts et al., Comment Letter on Proposed National Emission Standards for Hazardous Air Pollutants Coal- and Oil-Fired Electric Utility Steam Generating Units—Reconsideration of Supplemental Finding and Residual Risk and Technology Review (Apr. 17, 2019) (state comments in opposition to proposed reversing of the finding in the MATS rule).

³² New York v. U.S. Env’tl. Prot. Agency, No. 19-1019 (D.C. Cir. Oct. 1, 2019) (judgment vacating a 2018 EPA rule that did not require twenty upwind states to take further steps to reduce ozone pollution that drifts into downwind states).

³³ Petition for Review, New York v. U.S. Env’tl. Prot. Agency, No. 19-1019 (D.C. Cir. Jan. 30, 2019).

³⁴ Respondent EPA’s Final Status Report, Murray Energy Corp. v. U.S. Env’tl. Prot. Agency, No. 15-1385 (D.C. Cir. Aug. 1, 2018).

³⁵ Am. Lung Assoc. v. U.S. Env’tl. Prot. Agency, No. 17-1185 (D.C. Cir. June 6, 2018) (order that the EPA issue ozone attainment and nonattainment designations).

³⁶ Ariel Wittenberg & Kevin Bogardus, *EPA Falsely Claims ‘no data’ on Waters in WOTUS rule*, E&E NEWS (Dec. 11, 2018), <https://www.eenews.net/stories/1060109323>.

³⁷ Revised Definition of “Waters of the United States”, 80 Fed. Reg. 4154 (proposed Feb. 14, 2019) (to be codified at 33 C.F.R. pt. 328, 40 C.F.R. pts. 110, 112, 116, 117, 122, 230, 232, 300, 302, 401) [hereinafter Revised Definition of WOTUS].

³⁸ See *Learn About Rivers*, AM. RIVERS, <https://www.americanrivers.org/rivers/discover-your-river/> (last visited Nov. 21, 2019).

³⁹ Ariel Wittenberg, *How Does Trump Compare to Obama on WOTUS?* E&E NEWS (Dec. 12, 2018), <https://www.eenews.net/greenwire/stories/1060109451/>.

⁴⁰ Wittenberg & Bogardus, *supra* note 36.

⁴¹ *The Future of Clean Water is in Our Hands*, TROUT UNLIMITED, <https://standup.tu.org/stand-up-for-clean-water/> (last visited Nov. 21, 2019).

⁴² The EPA tries to duck the devastating consequences of such a massive withdrawal of federal Clean Water Act jurisdiction by asserting that states will step-in to fill the yawning gap. There is no credible evidence that this will occur. Fewer than half of states have their own permitting programs for freshwater wetlands, and only ten states have more than twenty people devoted to wetlands protection and monitoring work. Rebecca Kihlsinger, *WOTUS Proposal Poses Challenges for States*, ENVTL. LAW INST. (Feb. 18, 2019), <https://www.eli.org/vibrant-environment-blog/wotus-proposal-poses-challenge-states>; BRENDA ZOLLITSCH & JEANNE CHRISTIE, STATUS AND TRENDS REPORT ON STATE WETLAND PROGRAMS IN THE UNITED STATES (2016), https://www.aswm.org/pdf/lib/state_summaries/status_and_trends_report_on_state_wetland_programs_in_the_united_states_102015.pdf.

- ⁴³ New York et al., Comment Letter on Proposed Revised Definition of “Waters of the United States” (Apr. 15, 2019).
- ⁴⁴ Revised Definition of WOTUS, *supra* note 37.
- ⁴⁵ Washington et al., Comment Letter on the Draft Environmental Impact Statement for the Coastal Plain Oil and Gas Leasing Program (Dec. 28, 2018) [hereinafter Comment Letter on DEIS for Coastal Plain Oil and Gas Leasing Program].
- ⁴⁶ *Id.* at 48.
- ⁴⁷ Complaint for Declaratory and Injunctive Relief, California v. Bernhardt, No. 19- 6013 (N.D. Cal. Sept. 25, 2019); Complaint for Declaratory and Injunctive Relief, New York v. U.S. Dep’t of the Interior, No. 18-8084 (S.D.N.Y. Sept. 5, 2018); *Economic Impact: Birds, Bird Watching and the U.S. Economy*, U.S. FISH & WILDLIFE SERV. (last updated Oct. 18, 2018), <https://www.fws.gov/birds/bird-enthusiasts/bird-watching/valuing-birds.php>; *Where Are the Birds?*, MIGRATION SCIENCE AND MYSTERY, https://migration.pwnet.org/stopovers/arctic_slope_where.php (last visited Nov. 21, 2019); Comment Letter on DEIS for Coastal Plain Oil and Gas Leasing Program, *supra* note 45; Massachusetts et al., Comment Letter on Proposed Revision of the Regulations for Listing Species and Designating Critical Habitat, Revision for the Regulations for Interagency Cooperation, Revision of the Regulations for Prohibitions to Threatened Wildlife and Plants (Sept. 24, 2018).
- ⁴⁸ *Media Release: Nature’s Dangerous Decline ‘Unprecedented’; Species Extinction Rates ‘Accelerating,’* IPBES, <https://www.ipbes.net/news/Media-Release-Global-Assessment> (last visited Nov. 21, 2019).
- ⁴⁹ *New Audubon Science: Two-Thirds of North American Birds at Risk of Extinction Due to Climate Change*, AUDUBON (Oct. 10, 2019), <https://www.audubon.org/news/new-audubon-science-two-thirds-north-american-birds-risk-extinction-due-climate>.
- ⁵⁰ See STATE ENERGY & ENVTL. IMPACT CTR., STATE ATTORNEYS GENERAL: EMPOWERING THE CLEAN ENERGY FUTURE (2019), <https://www.law.nyu.edu/sites/default/files/StateAttorneysGeneralEmpoweringtheCleanEnergyFuture.pdf>.
- ⁵¹ U.S. DEP’T OF ENERGY, SAVING ENERGY AND MONEY WITH APPLIANCE AND EQUIPMENT STANDARDS IN THE UNITED STATES (Oct. 2016), https://www.energy.gov/sites/prod/files/2016/10/f33/Appliance_and_Equipment_Standards_Fact_Sheet-101416.pdf [hereinafter DOE APPLIANCE AND EQUIPMENT STANDARDS FACT SHEET].
- ⁵² THE \$2 TRILLION SUCCESS STORY: ENERGY EFFICIENCY STANDARDS, NAT. RES. DEF. COUNCIL (2019), <https://www.nrdc.org/sites/default/files/energy-efficiency-standards-success-story-fs.pdf> [hereinafter THE \$2 TRILLION SUCCESS STORY].
- ⁵³ DOE APPLIANCE AND EQUIPMENT STANDARDS FACT SHEET, *supra* note 51.
- ⁵⁴ THE \$2 TRILLION SUCCESS STORY, *supra* note 52.
- ⁵⁵ DOE APPLIANCE AND EQUIPMENT STANDARDS FACT SHEET, *supra* note 51.
- ⁵⁶ *Id.*
- ⁵⁷ New York et al., Comment Letter on Proposed Energy Conservation Program: Energy Conservation Standards for General Service Lamps (May 3, 2019).
- ⁵⁸ Attorneys general have also objected to DOE’s proposal to eliminate the 2020 standards for the remainder of lightbulbs used in homes, for which DOE failed to conduct an emissions analysis. New York et al., Comment Letter on the Proposed Determination for the Energy Conservation Program: Energy Conservation Standards for General Service Incandescent Lamps (Nov. 4, 2019).
- ⁵⁹ Gavin Bade, *DOE Plans to Complete 13 of 16 Delayed Efficiency Standards in ‘Coming Months’*, UTILITY DIVE (Mar. 7, 2019), <https://www.utilitydive.com/news/doe-plans-to-complete-13-of-16-delayed-efficiency-standards-in-coming-mont/550029/>.
- ⁶⁰ Energy Conservation Program for Appliance Standards: Proposed Procedures for Use in New or Revised Energy Conservation Standards and Test Procedures for Consumer Products and Commercial/Industrial Equipment, 84 Fed. Reg. 3910 (proposed Feb. 2, 2019) (to be codified at 10 C.F.R. pts. 430, 431).
- ⁶¹ California et al., Comment Letter on Proposal for Energy Conservation Appliance Standards (May 6, 2019); DOE’S PLANNED EFFICIENCY STANDARDS PROCESS WILL HURT U.S. BUSINESSES AND CONSUMERS, NAT. RES. DEF. COUNCIL (2019), <https://www.nrdc.org/sites/default/files/doe-planned-efficiency-standards-process-changes-will-hurt-us-businesses-and-consumers-fs.pdf>.
- ⁶² Petition for Review, New York v. U.S. Dep’t of Energy, No. 17-918 (2d Cir. Mar. 31, 2017).

- ⁶³ *Ceiling Fans*, APPLIANCE STANDARDS AWARENESS PROJECT, <https://appliance-standards.org/product/ceiling-fans> (last visited Nov. 21, 2019).
- ⁶⁴ Energy Conservation Program: Energy Conservation Standards for Ceiling Fans, 82 Fed. Reg. 23,723 (May 24, 2017) (to be codified at 10 C.F.R. pt. 430).
- ⁶⁵ Nat. Res. Def. Council v. Perry, 940 F.3d 1072 (9th Cir. 2018).
- ⁶⁶ *California Acts to Prohibit Chlorpyrifos Pesticide*, CAL. ENVTL. PROT. AGENCY (May 8, 2019), <https://calepa.ca.gov/2019/05/08/california-acts-to-prohibit-chlorpyrifos-pesticide/>; Pallavi Phartiyal, *EPA Must Do More to Secure Chemical Facility Safety for Fenceline Communities*, UNION OF CONCERNED SCIENTISTS (May 12, 2016), <https://blog.ucusa.org/pallavi-phartiyal/epa-must-do-more-to-secure-chemical-facility-safety-for-fenceline-communities>; WSJ News Graphics, *Crude Oil By Rail*, WALL STREET JOURNAL (Dec. 3, 2014), <http://graphics.wsj.com/crude-oil-by-rail/>; *PFAS Contamination in the U.S.*, ENVTL. WORKING GRP. (last modified Oct. 2019), https://www.ewg.org/interactive-maps/2019_pfas_contamination/map/; *Attorney General Actions*, STATE ENERGY & ENVTL. IMPACT CTR., <https://www.law.nyu.edu/centers/state-impact/ag-actions>; New York et al., Comment Letter on Proposal for Accidental Release Prevention Requirements: Risk Management Program Under the Clean Air Act (Aug. 23, 2018); *RMP Facilities and Accidents by State*, RIGHT-TO-KNOW NETWORK, http://www.rtk.net/rmp/tables.php?tabtype=t3&subtype=a&sorttype=num_fac (last visited Nov. 21, 2019); Mark Abney, Comment Letter on Proposed Tolerance Revocation for Chlorpyrifos (Jan. 3, 2016); George Boyhan, Comment Letter on Proposed Tolerance Revocation for Chlorpyrifos (Jan. 28, 2016); Susan James, Comment Letter on Proposed Tolerance Revocation for Chlorpyrifos (Jan. 13, 2016).
- ⁶⁷ See PAUL ORUM ET AL., WHO'S IN DANGER? RACE, POVERTY, AND CHEMICAL DISASTERS (2014), <https://comingcleaninc.org/assets/media/images/Reports/Who's in Danger Report and Table FINAL.pdf>.
- ⁶⁸ JARED MARGOLIS, RUNAWAY RISKS: OIL TRAINS AND THE GOVERNMENT'S FAILURE TO PROTECT PEOPLE, WILDLIFE AND THE ENVIRONMENT, CTR. FOR BIOLOGICAL DIVERSITY (2015), https://www.biologicaldiversity.org/campaigns/oil_trains/pdfs/runaway_risks_web.pdf.
- ⁶⁹ *Lac-Mégantic Runaway Train and Derailment Investigation Summary*, TRANSP. SAFETY BD. OF CANADA (last modified May 5, 2019), <https://www.tsb.gc.ca/eng/rapports-reports/rail/2013/r13d0054/r13d0054-r-es.html>.
- ⁷⁰ U.S. DEP'T OF TRANSP., PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMIN., HAZARDOUS MATERIALS BY RAIL LIABILITY STUDY REPORT TO CONGRESS (2017), https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/news/57011/report-congress-hazardous-materials-rail-liability-study-nov-2017_1.pdf.
- ⁷¹ Xindi Hu, *The Most Widely Used Pesticide, One Year Later*, HARV. UNIV. (Apr. 17, 2018), <http://sitn.hms.harvard.edu/flash/2018/widely-used-pesticide-one-year-later/>.
- ⁷² Petition for Review, League of United Latin Am. Citizens v. Wheeler, No. 17-71636 (9th Cir. Aug. 9, 2018).
- ⁷³ David Andrews, *Report: Up to 10 Million Americans Could Have PFAS-Contaminated Drinking Water*, ENVTL. WORKING GRP. (May 22, 2018), <https://www.ewg.org/research/report-110-million-americans-could-have-pfas-contaminated-drinking-water>.
- ⁷⁴ Lauren Zanolli, *Why You Need to Know about PFAS, the Chemicals in Pizza Boxes and Rainwear*, THE GUARDIAN (May 23, 2019), <https://www.theguardian.com/us-news/2019/may/23/pfas-everyday-products-toxics-guide>.



