

The Thin Green Line

Cuts in State Pollution Control Agencies Threaten Public Health



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ACKNOWLEDGEMENTS

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THE ENVIRONMENTAL INTEGRITY PROJECT

The Environmental Integrity Project (<http://www.environmentalintegrity.org>) is a nonpartisan, nonprofit organization established in March of 2002 by former EPA enforcement attorneys to advocate for effective enforcement of environmental laws. EIP has three goals: 1) to provide objective analyses of how the failure to enforce or implement environmental laws increases pollution and affects public health; 2) to hold federal and state agencies, as well as individual corporations, accountable for failing to enforce or comply with environmental laws; and 3) to help local communities obtain the protection of environmental laws.

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PHOTO CREDITS:

Cover Image: Flames and smoke rise from the largest oil refinery on the East Coast, the Philadelphia Energy Solutions Refining Complex in Philadelphia, on June 21, 2019, following an explosion and fire at the facility. (Associated Press Photo/Matt Rourke, used with permission.)

Page 14: Indiana Dunes National Park, Wikimedia Commons. Page 16: Shell cracker plant, Wikimedia Commons. Page 18: Hurricane Florence NC, flickr/Waterkeeper Alliance, Rick Dove. Page 20: Houston Ship Channel, flickr/Louis Vest. Page 22: ExxonMobil refinery, Wikimedia Commons. Page 24: An aerial view of a factory in East St. Louis, Illinois, Shutterstock.

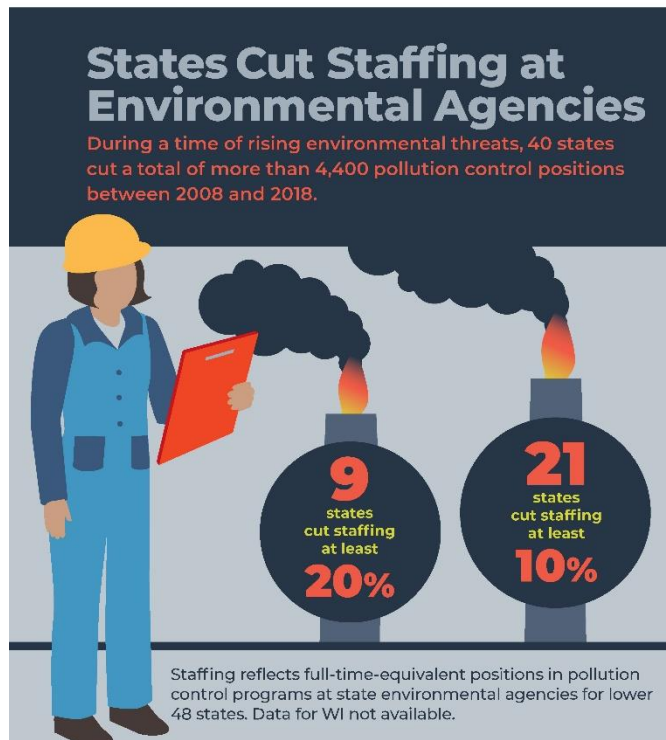
The Thin Green Line

Cuts to State Pollution Control Agencies Threaten Public Health

Over the last decade, Congress and the White House have cut the U.S. Environmental Protection Agency’s funding for pollution control and science by 16 percent (adjusted for inflation) while reducing its workforce 16 percent by eliminating 2,699 positions.

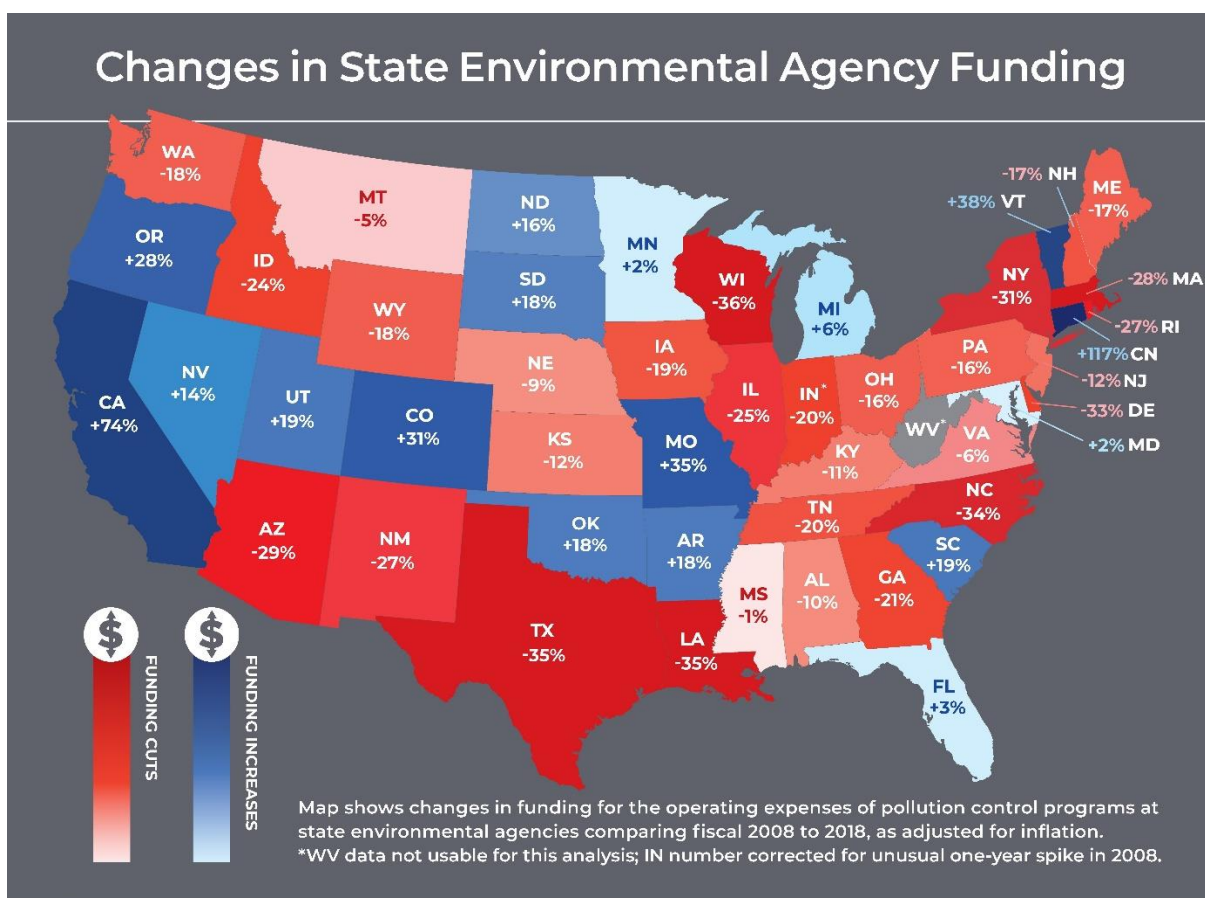
President Trump has repeatedly proposed cutting the EPA’s budget much further, while reducing the federal agency’s oversight and enforcement responsibilities. The EPA’s strategic plan for 2020 promises to “restore authority to the states through cooperative federalism,” while “sharply refocus[ing]” EPA on supporting states.¹ “Cooperative federalism” is a slogan that is often used to legitimize the transfer of more environmental authority from EPA to state governments. The Trump Administration wants the public to believe that EPA can step back without harm to public health or the environment because states have shown they can pick up the slack.

Subject to EPA’s approval and continued oversight, states are already implementing many requirements of federal environmental law and share credit for its achievements over the past several decades. However, states that agree to take on these federal responsibilities are required under our statutes to maintain the capacity, the legal authority, and the political will to do so. The Environmental Integrity Project examined the first of these issues: the capacity of state environmental agencies to ensure that federal standards are met under the Clean Air Act, Clean Water Act, and other environmental laws. We found that a majority of states have cut their pollution control spending and staffing over the last decade—often more drastically than EPA—even at times when overall state budgets have grown and environmental challenges have increased. This downsizing of environmental protection agencies at both the federal and state levels has happened during an unprecedented boom in the U.S. oil and gas industry. State regulators are frequently overwhelmed with permit applications for new projects while serious violations of law continue to accumulate at existing facilities with no enforcement response.



EIP examined the funding for state environmental agencies in the lower 48 states² over the most recent decade (fiscal years 2008 through 2018) and found the following:³

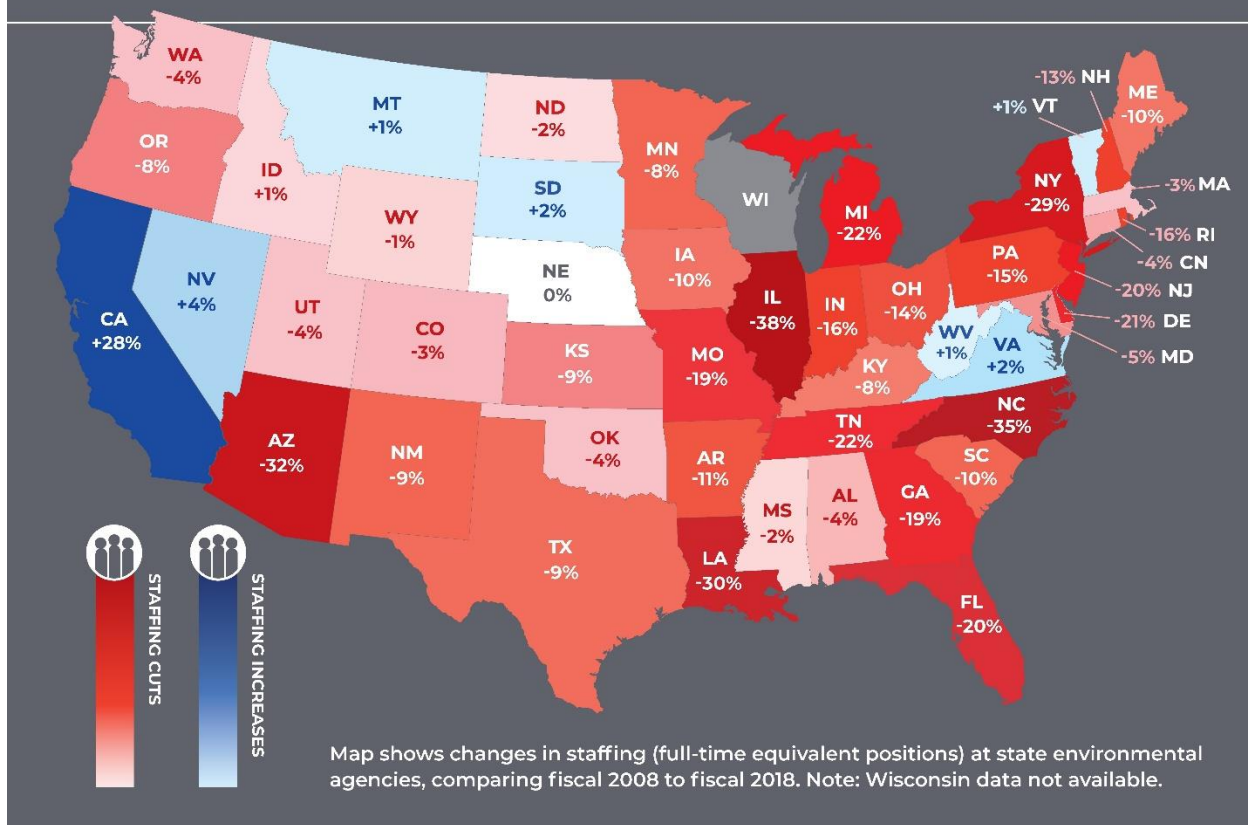
- Thirty states reduced the funding for their environmental agencies' pollution control programs.⁴ Twenty-five imposed cuts of at least 10 percent, while 16 slashed funding by more than 20 percent when adjusted for inflation.
- Although climate change and coastal flooding are having a growing impact, six of the 10 states with the sharpest cuts to their environmental agencies are coastal states that are disproportionately hurt by rising sea levels, including North Carolina, Louisiana, and New York.
- Forty states reduced the staffing⁵ levels at their environmental agencies over this decade. Twenty-one states cut their environmental workforce by at least 10 percent, and nine of those eliminated at least 20 percent.
- The only state reporting significant growth was California, where officials boosted state spending on the California Environmental Protection Agency's budget by 75 percent between fiscal 2008 and 2018, adding 1,255 pollution-control staff.
- Overall, states eliminated more than 4,400 position at agencies responsible for protecting the environment. If California's numbers are not included, the remaining states for which data are available⁶ shed a total of 5,705 pollution control positions over a decade, or about 14 percent of their total state workforce in this sector.



These steep reductions came despite evidence that many environmental violations are not resulting in enforcement or penalties. For example, there are 2,098 sewage plants, factories, and other industrial sites in 49 states that are currently in significant violation of federal air, water, or hazardous waste pollution control laws, including 1,255 that have been in violation every quarter continuously for the last three years, according to EPA records. Of these 1,255 sites with chronic violations, 80 percent (1,008) are in states with environmental agencies that suffered staffing cuts, and 41 percent (512) are in states that lost more than 10 percent of their pollution-control positions. For example, the New York Department of Environmental Conservation lost almost a third of its staff over the last decade; meanwhile, New York has had 28 wastewater plants in continuous violation of the federal Clean Water Act for the last three years.

It is noteworthy that deep cuts to environmental agencies have happened in states controlled by both Democrats (like New York) and Republicans (like Texas). For detailed case studies of a few states with large funding reductions, see pages 14 through 25 of this report. We profile Texas (whose environmental agency took a 35 percent cut); Louisiana (35 percent); North Carolina (34 percent cut); Illinois (25 percent budget cut, along with a 38 percent staffing cut); Indiana, whose pollution control programs suffered a 20 percent cut; and Pennsylvania, whose environmental agency suffered a 16 percent cut.

Changes in Staffing at State Environmental Agencies



Policy Recommendations:

- 1) Industry lobbyists and politicians should stop pretending that shifting more responsibility for environmental programs from federal to state agencies will not tear big holes in the safety net that protects public health and our natural resources from dangerous pollutants. This is a fallacy when most state environmental agencies have been weakened by budget and workforce cuts.
- 2) Federal and state governments play complementary but essential roles when it comes to protecting the environment. However, neither EPA nor most states have enough funding to do their share. Congress can help with more funding for both EPA and state agencies. But any increases for the states should not be taken out of EPA operating programs, because EPA's workforce has already shrunk to levels not seen since the Reagan Administration.
- 3) Governors and state lawmakers should fund state environmental agencies sufficiently to allow them to hire enough inspectors, permit writers, scientists, engineers, and other professionals to implement federal laws that protect public health, clean air, and clean water. That should be done by increasing permitting fees for industry that most states already collect.

States unable to muster the political will to adequately fund their own environmental agencies are less likely to make the hard decisions required to stand up to powerful lobbyists and hold polluters accountable.

In the end, cuts to state environmental agencies are attacks on public health and the natural resources that Americans cherish. Although their labor often goes unheralded, workers at both EPA and state environmental agencies are the thin green line that protects our families, forests, fields, and waterways from pollution. If we cut that line, either through negligence or anti-government ideology, we will leave a contaminated landscape that we will not want to pass on to future generations.

How EIP Conducted this Study:

Over a period of several months, the Environmental Integrity Project examined the budgets of the environmental agencies in the lower 48 states (numbers for Alaska and Hawaii were not available). Our analysis surveyed annual expenditures and staffing levels from fiscal year 2008 to 2018 for state agencies that protect public health and the environment from all forms of pollution. Their responsibilities include monitoring and investigating pollutants found in the air as well as in rivers, streams, and lakes, groundwater, and drinking water supplies; developing rules and writing permits; providing technical assistance to regulated industries and local governments; managing the cleanup of contaminated sites; and conducting inspections and bringing enforcement actions when pollution limits are violated.

Much of this day-to-day work involves implementing federal requirements the states have adopted after EPA approval. Federal grants help state agencies offset these program costs, which are also partly financed through permit or pollution fees and general appropriations by state legislatures.

Our analysis does not include programs that manage state parks or recreational areas, or state wildlife or fisheries programs. While obviously important, these functions are often handled by separate agencies with missions that align more closely with the U.S. National Park Service or Department of the Interior. Most states consolidate pollution control and cleanup programs in a single agency, like Indiana's Department of Environmental Management or the Ohio EPA. In a few states, pollution control and cleanup programs are housed within the state's natural resources department, as with the Wisconsin Department of Natural Resources. In such cases, we have attempted to identify and distinguish spending for those functions from the department's overall budget.

The data presented reflects each agency's annual operating expenditures, and does not include capital spending. Operating budgets include payroll for the agency's workforce of scientists, engineers, inspectors, lawyers, and other professional and administrative staff; overhead costs, e.g., building maintenance; outside technical support, e.g., for lab analysis or information technology; or grants to local governments. Capital expenditures usually involve large loans or grants to upgrade sewer systems or drinking water treatment plants. We excluded these capital costs because they can vary widely from one year to the next, and do not measure a state's capacity to implement federal requirements that limit pollution from a wide range of private and public sources.

The dollar amounts for each state reflect actual expenditures where we were able to obtain that information, and amounts appropriated by state legislatures in the remaining cases. Agency expenditures and staffing levels were primarily obtained from online sources that included documents prepared by or for the state's budget office or legislature. We shared the data with all states in draft form on October 24, 2019. Sixteen states responded either by suggesting corrections based on more accurate or recent information not available through online sources, or by confirming the numbers and methodology used were accurate. The appendices of this report include data for all states and explain the adjustments we made in response to the comments we received. A web map released along with the report on environmentalintegrity.org identifies the sources of all the data.

We adjusted the spending numbers for inflation, using 2018 dollars. Although inflation over this decade was modest, it adds up over time. For example, a dollar in 2018 buys about 17 percent less than it did in 2008.

Comparison to overall state spending: In at least some cases, spending on environmental agencies was slashed while overall state spending continued to grow. For example, between 2008 and 2018 (after adjusting for inflation):

- **Texas** cut the funding its state Commission on Environmental Quality by 35 percent, while boosting overall state government spending by 41 percent;
- The **North Carolina** Department of Environmental Quality lost 34 percent of its funding, while state spending overall grew by 8 percent;
- The **Indiana** Department of Environmental Management lost 20 percent of its funding, while overall state spending grew 17 percent;
- The **Pennsylvania** Department of Environmental Protection's funding fell by 16 percent, while overall state spending increased 18 percent;

Some states argue that their budget cutbacks are offset by reorganizing and streamlining agency functions to make a declining workforce more efficient. However, it is hard to believe these efficiency improvements are enough in cases where workloads for state agencies increase at an even faster rate. For example, between 2008 and 2018, gas production in Pennsylvania soared from 198 billion cubic feet a year to more than six trillion cubic feet annually, making Pennsylvania the second largest natural gas producer in the U.S.⁷ Over the same period, the state's pollution control agency, the Department of Environmental Protection, lost 16 percent of its funding and 15 percent of its staff. The Pennsylvania legislature has stubbornly refused to give the agency the resources it needs to monitor the explosive growth in gas production and the emissions from all the downstream infrastructure that the boom has created (e.g., compressors, gas processors, and storage terminals). (For more details on this, see sidebar story on Pennsylvania on page 23).

In almost half the states, 108 local or regional governments have been authorized to implement some or most of the federal Clean Air Act requirements that would normally be handled by state agencies. Our report is limited to state agency spending and staffing, and does not include the budget or workforce for regional or local entities.

Cuts to Operating Budgets

States with 10 Largest Percentage Cuts to Environmental Agency Funding

State	FY 2008 (millions)	FY 2008 (inflation adjusted 2018 dollars)	FY 2018	Percentage
Wisconsin	\$91	\$107	\$69	-36
Texas	\$494	\$578	\$374	-35
Louisiana	\$164	\$192	\$125	-35
North Carolina	\$116	\$136	\$90	-34
Delaware	\$46	\$54	\$36	-33
New York	\$381	\$446	\$307	-31
Arizona	\$81	\$95	\$67	-29
Massachusetts	\$59	\$69	\$50	-28
Rhode Island	\$30	\$35	\$25	-27
New Mexico	\$77	\$90	\$66	-27

Note: Figures for pollution control program operating funds in state environmental agencies are in millions. Source is state budget documents.

See Appendix A for data from all states. Overall, 30 states reduced the pollution control funding for their environmental agencies over this decade. Significantly, the state with the second highest percentage of cuts—Texas—that also experienced one of the largest growths in the oil and gas industry. Louisiana also made significant cuts to its Department of Environmental Quality despite a major expansion of its petrochemical industry. Louisiana has approved hundreds of air pollution control permits for industry since 2012, including for 41 big new petrochemical projects to build to expand liquefied natural gas export terminals, chemical plants, refineries and fertilizer factories. Eleven more large-scale project are currently seeking permit approvals.⁸ These permit applications for these massive new investments can run to several thousand pages, and should be carefully reviewed by state professionals to evaluate the impact they will have on air and water quality and the health of nearby communities. Meanwhile, the Bayou State has slashed its pollution control funding by 35 percent and staffing by 30 percent over the last decade, according to state budget figures.

In Pennsylvania, oil and gas companies have drilled more than 19,000 wells over the last decade even as the Department of Environmental Protection has shed 416 staff. Texas has approved more than 800 air pollution control permits for industry construction or expansion projects since 2012, including 95 major oil and gas facilities.⁹ Meanwhile, the Texas Commission on Environmental Quality has eliminated 296 positions since 2008. (For more on Texas, see page 14; for Louisiana, see page 16.)

Climate change and flooding are also having a growing impact on states along the Gulf Coast and both the East and West coasts, suggesting a need to more carefully plan for sea-level rise and regulate greenhouse gas pollution. However, seven of the 10 states with the sharpest cuts to their environmental agencies over the last decade have been are coastal

states, including Texas, Louisiana, and North Carolina, that are disproportionately impacted by storm surges and flooding.

When major natural disasters strike, inadequate pollution control preparation measures can lead to toxic spills and air pollution releases. For instance, when Hurricane Harvey struck the Houston area in 2017, the lack of state-enforced industrial shutdown protocols allowed companies to release thousands of pounds of hazardous air pollution releases just as the storm overtook many vulnerable neighborhoods. The release of so much pollution in such a short period added to the anxiety of the thousands of residents already trying to cope with a dangerous storm.¹⁰

The drop in spending for state pollution control programs cuts across party lines, and can be found in so-called red states (Texas, Louisiana, Indiana), blue states (New York, Massachusetts, and Delaware) and swing states (Pennsylvania and Wisconsin). The states with the largest cuts in funding were not always the states with the biggest reductions in personnel.

Cuts to Staffing at State Environmental Agencies

Among the 47 states for which data were available,¹¹ Illinois imposed the deepest staffing cuts to its environmental agency on a percentage basis between 2008 and 2018, shedding 389 positions and 38 percent of its workforce. New York cut largest number of staff in total, between fiscal 2008 and 2018 at its environmental agency (690 positions eliminated).

Top 10 Largest Percentage Cuts to State Environmental Agency Staff

State	FY 2008	FY 2018	Positions Lost	Percentage
Illinois	1,028	639	-389	-38
North Carolina	1,051	675	-376	-35
Arizona	473	322	-151	-32
Louisiana	994	698	-296	-30
New York	2,367	1,677	-690	-29
Tennessee	1,127	880	-247	-22
Michigan	1,568	1,228	-340	-22
Delaware	326	258	-68	-21
Florida	2,022	1,611	-411	-20
New Jersey	2,321	1,858	-463	-20

Note: Figures are full-time-equivalent positions at state environmental agencies, often eliminated through attrition. Source is state budget documents.

Overall, 40 states of the 47 states for which data were available reported declining staff levels between 2008 and 2018. Twenty-one reduced their workforce by 10 percent or more, and nine by at least 20 percent. Nationally, more than 4,400 positions were eliminated at state agencies responsible for protecting the environment over the last decade, but with

California excluded, staff cuts in the remaining states rise to 5,705 for an average reduction of 14 percent.

Only one state grew the staffing at its environmental agency by a significant amount (more than 10 percent) from 2008 to 2018: California.

The California Exception to the Cuts

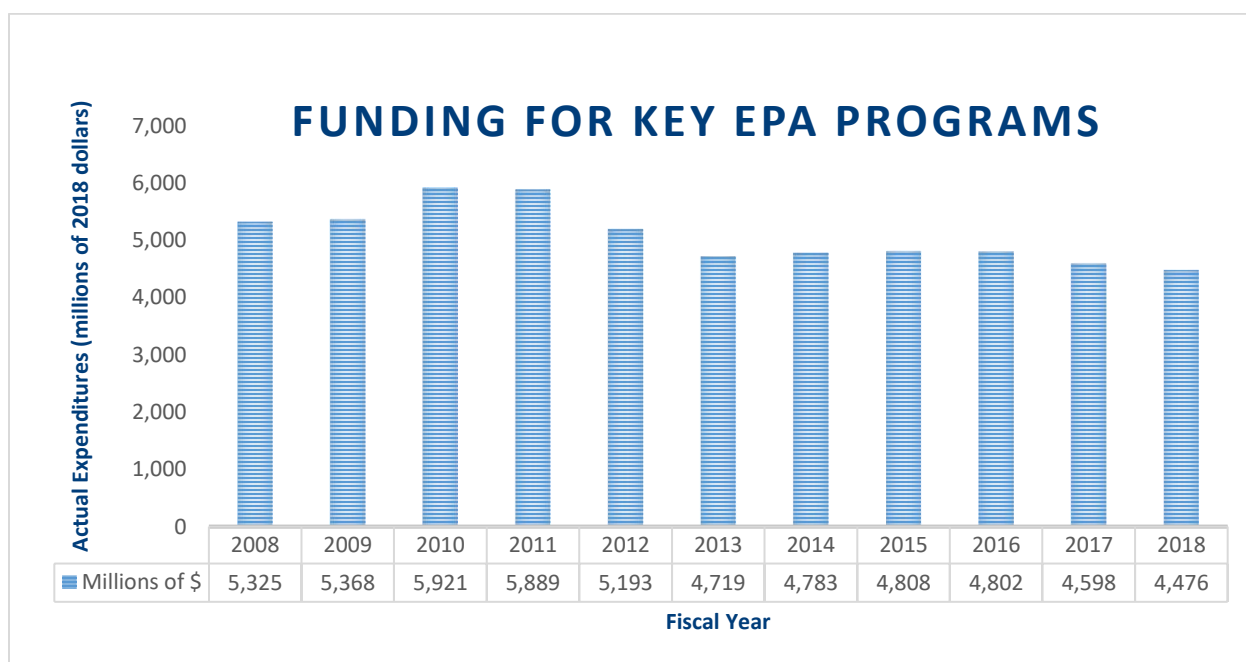
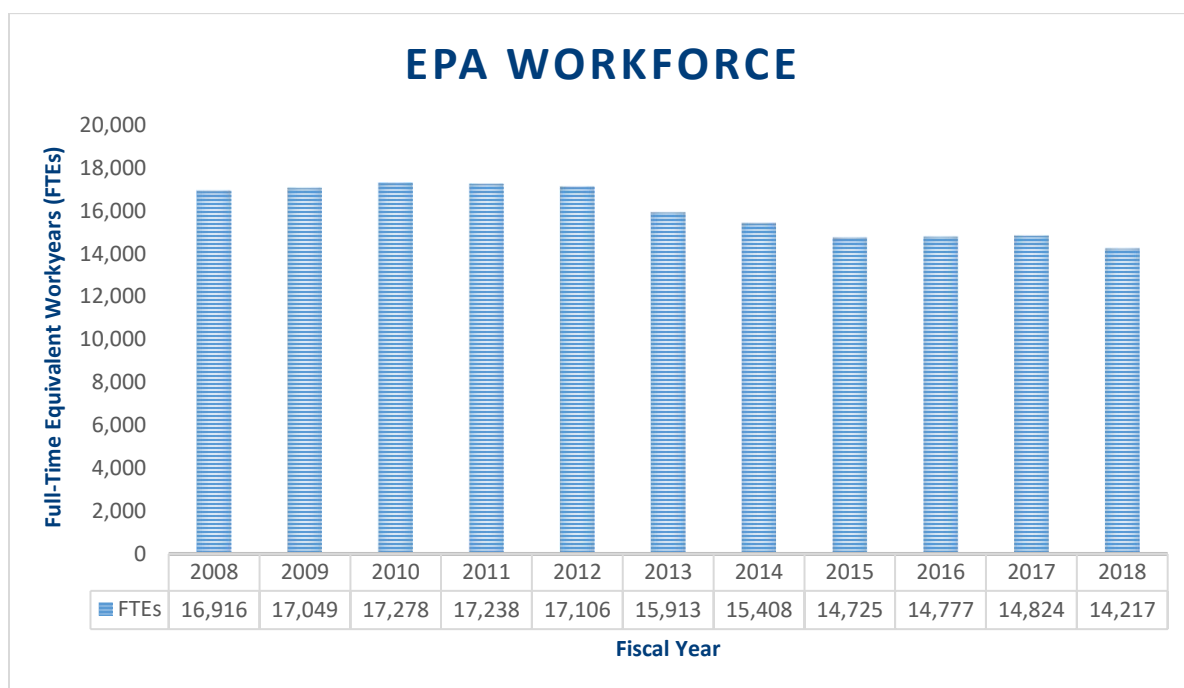
Governors and lawmakers in the Golden State almost doubled their funding for the California Environmental Protection Agency over the last decade, expanding its budget from \$2.4 billion to \$4.2 billion, adjusted for inflation. Staffing at CalEPA grew by 28 percent, from 4,434 full-time-equivalent positions in fiscal 2008 to 5,689 in 2018, according to state budget figures. The largest area of growth in CalEPA's spending was in recycling programs, with the state budget for resource recovery and recycling growing from zero in 2010 to \$1.6 billion in 2018. This was after California lawmakers passed a sweeping new recycling law. In part to reduce greenhouse gas emissions from landfills, the law (called AB 341) directed the state EPA to oversee a sweeping new program of mandatory commercial recycling and establish a new statewide target of 75 percent recycling by 2020 through source reduction and composting.¹²

CalEPA has also been positioning itself as a world leader in greenhouse gas reductions with a "cap and trade" program run by the California Air Resources Board (or CARB, which is part of CalEPA). "Cap and trade" systems use free-market-style buying and selling of pollution credits to provide financial incentives for companies to reduce their emissions. CARB's budget grew by 10 percent from fiscal 2008 to 2018, rising from \$870 million to \$960 million, according to state budget figures and adjusted for inflation. With drinking quality and availability a continuing issue in California, the budget for CalEPA's Water Resources Control Board also grew substantially over this decade, rising from \$1 billion in fiscal 2008 to \$1.2 billion in 2018, adjusted for inflation.

Trends at the U.S. EPA from 2008 to 2018

Over the same decade, Congress and the White House cut funding for EPA pollution control, site cleanup, and research programs by almost a billion dollars, and slashed staffing at the federal agency by 2,699 full-time equivalent positions (16 percent).¹³

Those losses came under both Republicans and Democrats, with 448 positions eliminated so far under President Trump between fiscal years 2017 and 2019. Under the Obama Administration, 2,139 positions were eliminated at EPA, with the numbers dropping from 16,916 in fiscal 2008 to 14,777 in fiscal 2016, a 13 percent decline.



Note: EPA staffing is employees expressed as full-time-equivalent positions. Funding includes environmental programs and management, science and technology, and Superfund.

During this time period, EPA spending on key pollution control programs declined, going from \$5.3 billion down to \$4.5 billion for environmental programs and management, science and technology, and hazardous waste (the Superfund program), when adjusted for inflation. Funding for enforcement programs at the federal agency dropped 17 percent over this period, from \$623 million in fiscal 2008, when adjusted for inflation, to \$520 million in

2018. Staffing for enforcement at the federal agency fell 10 percent from 2,977 full-time-equivalent positions to 2,691 in 2018.

The Balance Between Federal and State Responsibilities

The argument that EPA should shift more responsibility and authority to the states has been a recurring theme—especially popular among Republican governors and members of Congress—over the last two decades or more. Trump Administration EPA Administrator Andrew Wheeler, a former coal lobbyist, has repeatedly touted the virtues of “cooperative federalism,”¹⁴ using the phrase as a rationale for passing more responsibility down to the states. Wheeler wrote in a memo to his employees in October 2018: “States and tribes have the primary role in state- and tribal-implemented federal programs, and the EPA will generally defer to states and tribes in their day-to-day activities.”¹⁵

The 1970 federal Clean Air and 1972 Clean Water acts, among other federal environmental laws, allow states (instead of the EPA) to assume responsibility for implementation of federal pollution control standards, but only if they have the capacity to do so, and agree to comply with specific statutory requirements. Under this statutory framework, EPA is supposed to conduct regular oversight to ensure that state implementation is consistent with federal law. EPA also has a responsibility to object to weak permits, develop and revise national standards to protect the environment and public health, and establish minimum pollution control requirements.

Regardless of whether a state is authorized to implement federal laws, Congress gave EPA the authority to take enforcement actions against polluters who fail to comply. Even where resources for state environmental agencies are adequate, however, state regulators often face heavy pressure from large local industries to cut corners when issuing permits or look the other way when companies or municipalities exceed pollution limits. “The reason that the ultimate authority to enforce the law was put into federal hands was because the states weren’t any good at it,” former EPA Administrator William Ruckelshaus, the agency’s first leader, said in May 2019. “The idea that you’re going to delegate it to the states ... is completely fraudulent.” While those issues are very real, they are outside the scope of this report, which focuses on whether states have the resources to do the job.

The bottom line is that states cannot pick up more slack from a diminished EPA if the state agencies are also crippled by cuts to their funding and staff.

States Hit by Big Cuts

TEXAS

Cut Environmental Programs During Fossil Fuel Boom

At a time of rapid industry growth and hotspots of worsening air pollution, Texas slashed its environmental funding by 35 percent over the last decade – second most in the U.S. -- even as the overall state budget grew by 41 percent, according to state figures.

State funding for the Texas Commission on Environmental Quality (TCEQ)'s pollution control programs plummeted from \$578 million in 2008 to \$374 million in 2018, when adjusted for inflation. Meanwhile, staffing at the TCEQ also declined, from 2,884 full-time-equivalent positions in fiscal 2008 to 2,616 positions in fiscal 2018.

“With one-third of our waterways unsafe for fishing and swimming and two-thirds of Texans living in areas with unsafe air quality, Texas has major environmental problems,” said Luke Metzger, Executive Director of Environment Texas. “But instead of meeting this challenge, our legislature is deprioritizing the environment and public health. It's nuts that, especially amid a huge building out of polluting petrochemical infrastructure, we have fewer people looking after our environment than we did 10 years ago.”

Fires, explosions, and other accidents are becoming common at Texas petrochemical facilities, especially when floods and natural disasters, such as Hurricane Harvey, hit the state. For example, on July 31, 2019 the second of two fires this year erupted at the ExxonMobil Baytown petrochemical complex just east of Houston, injuring 37 people and releasing 14,103 pounds of benzene, a carcinogen.



Texas is the leading U.S. producer of both crude oil and natural gas, accounting for 37 percent of the nation's crude oil production and 24 percent of its natural gas production in 2017.

Right now, an underfunded and understaffed TCEQ allows far too many unpermitted releases of pollution from industry.¹⁶ From 2015 to 2017, Texas regulators penalized only seven percent (57 out of 872) of unpermitted pollution releases from the plastics industry in the Houston region during malfunctions or other industrial “upset” incidents that released a total of 11 million pounds of air pollution. The fines were minimal, totaling only six cents per pound of illegal pollution.

In West Texas, an EIP analysis recently found that excessive flaring from the oil and gas industry is causing dangerous levels of sulfur dioxide air pollution in the rapidly growing community around Midland and Odessa.¹⁷

“Despite the huge Permian Basin boom, Texas has a miniscule amount of air monitoring equipment in West Texas to measure ozone, sulfur dioxide, hydrogen sulfide and particulate matter, despite repeated complaints by residents,” said Cyrus Reed, PhD, Interim Director and Conservation Director of the Lone Star Chapter of the Sierra Club.

“With so much development occurring, and so much reported emissions events in the Permian Basin, TCEQ is unable to respond to concerns of the community about pollution.”

The following are some key challenges facing Texas that require an adequately funded state environmental agency:

- Texas is the leading U.S. producer of both crude oil and natural gas, accounting for 37 percent of the nation's crude oil production and 24 percent of its natural gas production in 2017.¹⁸ The state has more than 460,000 miles of pipelines crisscrossing the state.
- The state has approved more than 700 air pollution control permits for industry construction or expansion projects since 2012, including 95 major oil and gas facilities, with 14 more seeking approval.
- Houston, Dallas and El Paso all rank within the top 25 U.S. cities for ground-level ozone, or smog, pollution according to the American Lung Association.¹⁹
- Of the 79 petroleum refineries in Texas, 42 (or 53 percent), have been the subject of state or federal enforcement actions over the last five years. Thirty-four (or 43 percent) have been in continuous noncompliance with pollution control laws over the last three years, including ExxonMobil Chemical Baytown, Valero Texas City Refinery, and Motiva Port Arthur Refinery, according to EPA records.²⁰
- Texas is also the ninth largest coal-producing state in the U.S., with nine coal mines producing 25 million tons of coal in 2018.²¹ Nearly a quarter of Texas’s electricity comes from coal-fired power plants. A recent EIP report found toxic groundwater contamination to be a pervasive problem at coal ash waste ponds at power plants across the state.²²
- The Lone Star State currently has 29 major wastewater plants and industrial facilities in significant noncompliance with the federal Clean Water Act, four of which have been in continuous violation for the last three years, EPA records show. These include at the Enterprise Mont Belvieu oil and gas plant east of Houston, and the Port Acres Wastewater Treatment plant in Port Arthur.

- Texas also has 258 industrial facilities with what EPA considers “high priority” violations of the federal Clean Air Act, and 28 with current hazardous waste violation, according to EPA records.

Budget cuts have hit several TCEQ programs particularly hard over the last decade. The TCEQ pollution prevention program had its budget cut from \$6 million in 2008 to \$1.8 million in 2018, a 70 percent decline. The agency’s waste assessment and planning program had its budget cut from \$16.4 million to \$6.4 million, a 61 percent decline.

Meanwhile, over this same period, Texas overall budget grew substantially, rising from \$112 billion in fiscal 2008 to \$158 billion in fiscal 2018, state figures show.

LOUISIANA

Neglected Communities by Slashing Environmental Protections

Despite growing threats from an expanding petrochemical industry and rising sea levels, Louisiana has slashed its spending on environmental protection programs by 35 percent over the last decade and staffing by 30 percent, according to state budget figures.



The ExxonMobil Refinery in Baton Rouge as viewed seen from the top of the Louisiana State Capitol building.

State funding for the Louisiana Department of Environmental Quality fell from \$192 million in 2008 to \$125 million in 2018, when adjusted for inflation, while staffing declined from 994 full-time-equivalent positions in fiscal 2008 to 698 in 2018. Over same period, the overall state budget for Louisiana shrank by much less, only 15 percent.

This lack of environmental prioritization should not be surprising: A 2011 EPA

Inspector General report found Louisiana’s enforcement of environmental laws to be among the worst in the country.²³

“The Louisiana Department of Environmental Quality needs two things: more money in its budget and the will to enforce the law,” said Anne Rolfes, Director of the Louisiana Bucket Brigade, an environmental organization. “Demoralized employees lack the proper funding to do their jobs, and they are vulnerable to industry pressure. The petrochemical industry will not miss an opportunity in Louisiana to exploit a weakened enforcement agency, and we in Louisiana suffer because of it.”

The true cost of environmental degradation is more tangible in Louisiana than in almost any other state. Driven by oil and gas industry development and rising sea levels, more than 2,000 miles of the state's southern edge have literally washed away into the Gulf of Mexico since the early 1930s. While the rate of loss has slowed since peaking in the 1970s, more than a football field still disappears about every 100 minutes, according to U.S. Geological Survey.²⁴

The rapid expansion of the oil and gas industry not only threatens further land erosion, but also endangers communities who live next to industry. Often lower-income and minority residents in Louisiana live with toxic air and water, deafening noise, depressed property values, and elevated safety risks from fires, accidents, and flooding.

A Taiwanese company called Formosa Plastic is proposing to build one of the largest plastics factories in the world in St. James Parish. It's a mostly African-American community between Baton Rouge and New Orleans in an area known known as "Cancer Alley" for its high cancer rates and numerous petrochemical plants and refineries.²⁵ The \$9 billion facility would release some of the highest amounts of carcinogenic air pollutants, including ethylene oxide and benzene, of any plant in the state.^{26 27}

Below are some of the major environmental challenges facing Louisiana that require a robust environmental protection agency:

- More than a third of the petrochemical plants in the state (15 of 43) have been in continuous noncompliance with pollution control laws over the last three years, including the Phillips 66 Lake Charles refinery, the ExxonMobil Baton Rouge chemical plant, and Dow Chemical Co.'s Louisiana Operations, according to EPA records.²⁸
- Louisiana has approved hundreds of air pollution control permits for industry sites since 2012, including 41 for major oil and gas processing projects, with another 11 companies currently seeking approval for construction or expansion. These new or expanding facilities will contribute significantly to the state's greenhouse gas emissions and hazardous air pollution.²⁹
- Louisiana has 7,388 oil and gas drilling facilities, and accounts for seven percent of U.S. gas production.³⁰ The state is the ninth largest crude oil producer and fourth largest natural gas producer in the U.S.³¹
- In less than a century, Louisiana has lost over 2,000 square miles of land, an area roughly the size of Delaware. Sea level rise, oil and gas infrastructure, natural disasters, shipping channels, and other human-driven developments continue to erode Louisiana's coastline.³²
- Louisiana currently has 12 major wastewater plants and industrial facilities in significant noncompliance with the federal Clean Water Act, including two—the

Baton Rouge and Springhill sewage treatment plants—in continuous violation for the last three years, according to EPA records.

- The state also has 72 industrial facilities with what EPA considers “high priority” violations of the Clean Air Act, and 49 with current violations of hazardous waste laws.

Despite all of these challenges, state officials keep cutting the Louisiana Department of Environmental Quality.

“A state agency without sufficient funding emboldens an already abusive industry,” said Anne Rolfes of the Louisiana Bucket Brigade.

NORTH CAROLINA

Imposed Big Cuts Despite Flooding and Factory Farm Growth

Despite growing environmental threats from climate change, factory farming and other sources, governors and lawmakers in North Carolina slashed funding for pollution control efforts by 34 percent over the last decade.



North Carolina is home to 2,246 factory hog farms housing 9.7 million pigs that produce 10 billion gallons of manure annually. These facilities pollute rivers and streams across the state, especially during natural disasters such as 2008's Hurricane Florence.

At a time when the overall state spending grew, officials cut funding for pollution control programs at the North Carolina Department of Environmental Quality (DEQ) from \$136 million in fiscal 2008 to \$90 million in 2018, when adjusted for inflation.

Over the same time, the DEQ eliminated 376 jobs, with the number of full-time-equivalent positions at the state agency falling by more than a third, from 1,051 in fiscal 2008 to 675 in 2018, according to state budget figures.

“This idea that we can just slowly underfund our state environmental agencies, and that is somehow going to be beneficial to the state or business is just really backward,” said Drew Ball, Director of Environment North Carolina. “It doesn’t help business and certainly doesn’t help the health and safety of families.”

One fallout of the draconian staffing cuts, Ball noted, is that the state now has a backlog of permit applications by developers and other business owners who need permits to move ahead with their projects. To get around this personnel problem, state officials have imposed a “shot clock” of 30 to 60 days for DEQ to automatically approve many permit applications. That means, in effect, that many permits will be rubber stamped because of inadequate time and personnel.

“North Carolina has nine permit writers for 220 water discharge facilities,” complained Democratic Gov. Roy Cooper.³³ “Meanwhile, South Carolina has almost twice as many officials overseeing far fewer facilities.”

Despite the lack of funding for environmental protections, North Carolina faces several major pollution threats, including:

- The state is home to 2,246 factory hog farms housing 9.7 million pigs that produce 10 billion gallons of manure annually—500 times the waste produced by the population of Washington D.C.³⁴ The hog waste lagoons often spill into rivers because of higher storm surges caused by sea-level rise and climate change.
- North Carolina has 13 power plants with coal ash dumps that are leaking unsafe levels of toxic pollutants into groundwater, including the second-worst site for coal ash contamination in the nation: Duke Energy’s Allen Steam Station in Belmont.³⁵
- The state has six wastewater and industrial plants that are currently in significant noncompliance with the federal Clean Water Act, all of which have been in continuous violation for the last three years, according to EPA records. These include the Bellows Creek, Long Creek, and Rocky River sewage treatment plants.
- North Carolina also has 10 industrial facilities with what EPA considers “high priority” violations of the Clean Air Act, and 10 plants with hazardous waste violations.

Among the hardest-hit programs at the North Carolina Department of Environmental Quality over the last decade has been wetlands protection, with its workforce reduced from nine workers to zero by last year, according to state budget data.

The cuts to DEQ were not caused by a shortage in state funding or any kind of budget crunch, state records indicate. The overall state budget grew by eight percent over this decade, from \$40 billion in fiscal 2008 to \$43 billion in fiscal 2018.

“Republican lawmakers, whether they admit it or not, look at environmental regulation as the enemy of big business,” the Raleigh News & Observer editorialized.³⁶ “Rules hamper business, the logic goes, and therefore North Carolina needs as few regulations as possible. And since Republicans have been in charge, they’ve done away with regulation, and they’ve dramatically cut the budget for DEQ.”

ILLINOIS

Left Pollution Violations Unaddressed with Cuts to Environmental Agency

Over a decade, as Illinois' overall state budget grew by nearly half and environmental threats persisted, governors and lawmakers cut staffing at the Illinois Environmental Protection Agency (IEPA) by 38 percent—the most of any state in the U.S.

IEPA eliminated 389 full-time equivalent positions between fiscal 2008 and 2018, with its workforce declining from 1,028 to 639, according to state figures. Meanwhile, the state slashed funding for pollution control programs at the IEPA by 27 percent, from \$257 million in fiscal 2008 to \$192 million in fiscal 2018, when adjusted for inflation.

“I know the people at IEPA are trying to do their jobs and the obligations we’ve given them with limited resources, but it’s just too little and the work isn’t getting done,” said Jen Walling, Executive Director of the nonprofit Illinois Environmental Council. “This means that people are subject to more pollution, polluters are getting away with more violations, and also, for industry, it takes longer to obtain a permit in Illinois.”

Some examples of the need for an adequately staffed Illinois Environmental Protection Agency include:

- Environmental enforcement in Illinois has declined by almost half over the last decade, with the IEPA referring an average of 149 cases to the Illinois Attorney General’s Office for prosecution in the years 2008 to 2011, but only 80 per year on average between 2015 and 2018.³⁷ So far in 2019, there have been 86 referrals.³⁸



Eighteen coal-fired power plants in Illinois have coal ash dumps that are leaking dangerous levels of toxic metals including arsenic and lead into groundwater – the most of any state in the U.S.

- Eighteen coal-fired power plants in Illinois have coal ash dumps that are leaking dangerous levels of toxic metals including arsenic and lead into groundwater, according to utility records. That's the most of any state in the U.S.³⁹
- Illinois has 10 municipal wastewater treatment plants in significant noncompliance with the federal Clean Water Act, including eight in continuous violation for the last three years, according to EPA records.⁴⁰ The sewage plants with chronic violations are in Geneva, Bolingbrook, Mount Carmel, Quincy, Paris, LaSalle, Frankfurt, and Beardstown.
- The state also has 12 industrial plants with what EPA considers current "high priority" violations of the federal Clean Air Act, and 30 plants with hazardous waste violations, according to EPA records.
- Farm runoff pollution is a major problem in the Illinois and Mississippi rivers and their tributaries, with 672 miles of waterways and 25,000 acres of lakes in the state impaired with pollution because of animal feeding operations.⁴¹

Attorney General Lisa Madigan has noticed the sharp decline at IEPA. "I have been dismayed by the sudden drop off in the number of IEPA referrals to my office," she said.⁴² "The failure to thoroughly investigate and refer violations of the laws has dangerous consequences for people's health and the environment."

Particularly hard hit at the Illinois EPA has been the Bureau of Air, which had its funding cut 39 percent, from \$61 million in fiscal 2008 to \$37 million in 2018, according to state records. The Bureau of Water had its funding cut 29 percent from \$33 million in fiscal 2008 to \$23 million in fiscal 2018.

"The environment, the economy and public health are all being negatively impacted because we are not adequately funding IEPA," said Jen Walling of Illinois Environmental Council.

INDIANA

Environmental Agency Kneecapped by Cuts to Staff and Budget

Over the last decade, as Indiana's overall state spending grew by 17 percent, governors and lawmakers cut funding for the Indiana Department of Environmental Management (IDEM) by 20 percent.⁴³

"There are many smart, hard-working people at Indiana's Department of Environmental Management, but their ability to do the work the state needs is curtailed by severe resource limitations and repeated budget cuts," said Dr. Indra Frank, Environmental Health and Water Policy Director at the Hoosier Environmental Council.

According to state budget figures, the state slashed funding for pollution control programs at IDEM by 20 percent, from \$175 million in 2007/2009 to \$140 million in fiscal 2018, when

adjusted for inflation. Over this same period, staffing at IDEM dropped by 149 positions, or 16 percent.

It should be noted that 2008 was an anomalous year for Indiana, with an unusual one-year spike in federal funding (\$251 million in fiscal 2008). So for this analysis, EIP corrected for this spike by averaging fiscal years 2007 and 2009 and comparing that average to 2018.



The eastern end of Indiana Dunes National Park abuts heavy industry (shown here is the NIPSCO Michigan City power plant.) In August, a chemical spill at a nearby steel factory released concentrated cyanide and ammonia into waters leading to the lake, forcing the park to close its beaches.

While IDEM took a funding hit, overall spending by the Indiana state government grew 17 percent over this last decade, rising from \$29 billion in 2008 to \$34 billion in 2018, when adjusted for inflation.

“While we need industries for our economy, we also need a clean environment,” said Natalie Johnson, Executive Director of Save the Dunes, an organization working to preserve northwest Indiana’s environment. “We cannot continue to diminish the agency that is meant to protect people and the environment. Funding must be restored to properly allow IDEM to hold

polluters accountable and seek long-term solutions to address chronic pollution problems.”

The sharp decline in resources for conservation programs in Indiana is being felt in some of the state’s most treasured outdoors spaces.

For example, Indiana Dunes National Park, a gorgeous 25-mile stretch of beaches and wooded hills along the southern shore of Lake Michigan, became the nation’s newest national park in February 2019. But in August, a chemical spill at a nearby steel factory released concentrated cyanide and ammonia into waterways leading to the lake. The toxic pollution resulted in the death of several thousand fish and the closing of beaches at the park.⁴⁴ The accident occurred at global giant ArcelorMittal’s Burns Harbor plant during a power loss. The facility has violated industrial pollution permit limits dozens of times over the last five years. However, state and federal regulators have been slow to apply enforcement measures.⁴⁵

The following are some key environmental challenges facing Indiana that require an adequately funded state environmental agency:

- All fifteen coal-fired power plants in Indiana have coal ash dumps that are leaking dangerous levels of toxic metals including arsenic and lead into groundwater,

according to monitoring data from the power companies.⁴⁶ The contaminated sites include the Michigan City Generating Station, Cayuga Generating Station, and Wabash River Generating Station.⁴⁷

- Twenty-three major wastewater plants and industrial facilities in Indiana are currently in significant noncompliance with the federal Clean Water Act, according to EPA enforcement records.⁴⁸ Five—including in Kendallville and New Albany—have been in continuous noncompliance every quarter over the last three years.
- Indiana also has 72 industrial plants currently listed as having what EPA considers “high priority violations” of the federal Clean Air Act, and 24 in significant noncompliance of hazardous waste laws, EPA records show.
- Ninety-two of 299 facilities in the utility sector (including electric power, natural gas, water supply, and sewage removal), or 31 percent, have violated state or federal environmental laws within the last three years, including Duke Energy Vermillion Generating Station and BP Amoco Whiting Refinery.⁴⁹
- Eleven of Indiana’s 18 ethanol-manufacturing facilities, or 61 percent, have faced federal or state enforcement actions over the last five years, including Central Indiana Ethanol LLC, Grain Processing Corp, and New Energy Corp, EPA records show.⁵⁰

Budget cuts have hit certain Indiana environmental programs particularly hard. The IDEM hazardous waste management program had its funding cut from \$10.6 million in 2008 to \$2.5 million in 2018, a 76 percent decline, when adjusted for inflation. The IDEM safe drinking water program had its budget cut from \$6.9 million in 2008 to \$5.1 million in 2016 (the most recent available year), a 26 percent decline.

PENNSYLVANIA

Slashed Environmental Protections amid Oil and Gas Boom

During a decade when natural gas production in Pennsylvania multiplied 30 fold and overall state spending grew, state officials slashed funding for pollution control efforts by 16 percent, the most in the U.S., state records show.

Funding for the Department of Environmental Protection's (DEP) pollution control programs dropped from more than \$650 million in fiscal 2008 to a little less than \$550 million in fiscal 2018. Meanwhile, 416 jobs were eliminated at the state agency, which had 2,746 full time equivalent positions in fiscal 2008, but only 2,330 in fiscal 2018—a drop of 15 percent.

“From soup to nuts, when you make steep cuts in revenue at DEP and then lose staff and expertise, not surprisingly, your ability to run the agency and protect the environment is chopped off at the knees,” said

David Masur, Director of PennEnvironment, a nonprofit advocacy organization.

“I think it’s really demoralizing for the staff, and it hurts the whole agency when you have a demoralized staff,” said Masur. “The men and women at DEP who do the day-to-day work in the trenches care deeply about these issues. But when staff positions are cut, when decades of expertise get pushed out, all of those things have a huge effect on the agency’s ability to be successful.”

The cuts at DEP come at a time when Pennsylvania is facing unprecedented environmental challenges:

- With the growth of hydraulic fracturing, oil and gas companies drilled more than 19,000 wells in western and central Pennsylvania from 2009 to 2019, bringing increased air and water pollution.⁵¹
- The safety of drinking water is at risk. EPA warned DEP in 2016 that its drinking water system inspectors have twice the average national workload, with each Pennsylvania inspector responsible for overseeing 149 water systems, compared to the national average of 67.⁵² “This excessive workload is not sustainable and program performance will continue to suffer,” EPA warned the state.
- Pennsylvania is the third largest coal mining state in the U.S., with at least 151 active coal mines that produced 50 million tons of coal in 2018.⁵³ The state also has more than 5,000 abandoned coal mines, many leaking acidic water into streams and rivers, and more than 5,500 miles of waterways across the Commonwealth have been damaged by abandoned mine drainage.⁵⁴



Construction of the Shell Cracker Plant in Beaver County, PA, in January 2019. The plant will be capable of producing 1.6 million tons of raw plastic annually, and is a key development of the new Appalachia petrochemical hub.

- Pennsylvania has 17 wastewater plants and industrial facilities currently in significant noncompliance with the federal Clean Water Act, including six in continuous violation over the last three years, according to EPA records.
- The Commonwealth also has 50 facilities with what EPA considers “high priority” violations of the federal Clean Air Act, and 15 industrial plants with current hazardous waste violations.
- Pennsylvania is facing increased pressure from EPA—and threats of lawsuits from downstream Maryland—for falling 17 million pounds short of regional goals for reducing nitrogen pollution into the Chesapeake Bay.⁵⁵

Because of Pennsylvania’s lack of progress in reducing its pollution into the Chesapeake Bay, the Chairman of the Chesapeake Bay Executive Council, Maryland Governor Larry Hogan, sent a letter to Pennsylvania Governor Tom Wolf on August 29, 2019, expressing “alarming concern” over Pennsylvania’s lack of progress in the Bay cleanup.⁵⁶

“The Commonwealth of Pennsylvania’s final (bay cleanup plan) falls far short of the federally established nitrogen goal by only achieving 73 percent of the required reduction. Pennsylvania’s plan also includes a troubling funding gap of over \$300 million annually,” Hogan wrote.

Pennsylvania’s lawmakers often insist the Commonwealth does not have the money to do more to protect the environment. However, the state’s overall budget—other than for pollution control—grew substantially between fiscal 2008 and 2018, rising 18 percent, from \$33 billion to \$39 billion, according to state budget figures.

Pennsylvania also has potential access to more pollution control dollars that it chooses not to utilize. The Commonwealth is the only natural-gas producing state in the U.S. that does not impose an excise tax on drilling companies, which could be used to fund hundreds of millions of dollars in clean water and conservation efforts.

Sources of Funding for State Agencies

As might be expected, multiple factors explain the drop in funding for state environmental agencies. Fiscal constraints play a part, although that explanation is harder to credit when overall state spending rises while environmental budgets continue to shrink. Some states argue that efficiency improvements allow their staff to perform the same tasks at a lower cost, e.g., by reducing the amount of time it takes to review and approve permits. All taxpayers expect their governments to eliminate bureaucratic overhead and wasteful spending. However, relying upon a shrinking workforce to review more applications at ever-faster rates forces agencies to rubber stamp permit approvals, without enough time to evaluate the environmental impact of their decisions or whether the right pollution controls are in place.

Most state environmental agencies are financed through a combination of federal grant dollars, user fees, and general revenues. EPA grants that help offset the cost that a state incurs when it agrees to implement federal environmental laws generally cover between 25 and 30 percent of the environmental agency’s total operating budget, with a higher

percentage in smaller states. Although not widely understood, about half of the U.S. EPA's budget is spent on grants to states, local governments, tribes, universities, and public-private partnerships. The so-called "categorical grants" provide the primary support for states that have assumed responsibility programs under the Clean Air Act, Clean Water Act, and other federal statutes. Funding levels for these categorical grants declined from \$1.157 to \$1.055 billion between the 2008 and 2018 fiscal years, a 22 percent decrease in inflation-adjusted dollars.

However, spending for categorical grants presents an incomplete picture of the support EPA gives states, which increasingly comes through other grant mechanisms. For example, EPA awarded more than \$29 million to state, local and tribal agencies in 2018 to reduce pollution in "targeted airsheds." This program did not exist in 2008, and is not included among the categorical grants mentioned above. Neither is the \$447 million in EPA spending on "geographical initiatives" in 2018, almost all of which is distributed to both public and private organizations to tackle pollution in the Great Lakes, Chesapeake Bay, Puget Sound, Gulf of Mexico, and other high-value ecosystems. While not all of this spending flows to state pollution control agencies, some of it does, including the \$95 million that the Indiana Department of Environment, Michigan Department of Environmental Quality, and Ohio EPA received between 2010 and 2018 through EPA's Great Lakes Restoration Initiative.

In other words, while EPA spent less in 2018 on the categorical grants that support state environmental agency budgets than in years past, those cutbacks for at least some states have been offset by other sources. Congress should certainly consider increasing spending levels for state categorical grants, but not at the expense of EPA operating programs that have been declining for years.

The most sensible solution to state budget shortfalls is to raise the fees that most states already collect from the sources of pollution they regulate. These include permit fees, penalties collected from environmental violators, and payments based on the volume of pollution released by the largest sources. The Clean Air Act already requires authorized states to collect fees from the largest polluters that are sufficient to cover the cost of monitoring, permitting, and inspecting sources subject to federal emission control standards.

In most states, the general revenues from state taxpayers cover a relatively small fraction of their environmental agency's operating budget. Legislatures will need to find the political will to increase the share that goes to pollution control and cleanup programs. And the U.S. EPA should stop handing off federal responsibilities to states that lack the resources to take them on.

Conclusion

The idea of local control over local environmental issues is a rational one, and forms the bedrock of many land-use decisions today. For example, most zoning and real-estate permitting decisions are made at the local level. In many parts of the U.S., air and water quality have dramatically improved since our first federal environmental laws were written nearly fifty years ago. However, we still have a long way to go, as millions of Americans

still live in areas with unhealthy levels of smog or particulate matter, and too many waterways are impaired by contaminants that make their water unsafe or unsuitable for swimming or fishing. Both the U.S. EPA and state agencies need the resources to do their part if we are to fix these problems and meet new challenges in the years ahead.

EPA and states share responsibility for implementing the Clean Air Act, Clean Water Act, and other environmental laws. In broad terms, EPA develops national standards to protect public health and our natural resources from pollutants like ozone (smog) or bacteria, establishes pollution limits for specific industries, and defines the minimum requirements that larger sources must satisfy to obtain a federal air, water, or hazardous waste permit. Subject to EPA approval, states can assume the primary responsibility for implementing these standards, which includes issuing and revising permits, inspecting facilities and enforcing compliance, and developing additional requirements as needed to meet federal air or water quality standards. EPA retains important oversight responsibilities in states with approved programs, e.g., it can reject a bad federal permit that a state has issued, and bring enforcement actions against polluters as needed.

This division of labor is authorized by law and designed to build on the strengths of both federal and state governments. But over the last decade in particular, neither the U.S. EPA nor state agencies have had the funding they need to do their part.

Unfortunately, under the guise of “cooperative federalism,” Republican leaders in Congress and the Trump Administration have in recent years have been promoting the idea that EPA should be dramatically shrunk or eliminated entirely—because the state governments can take charge of all the responsibilities. This state’s rights movement becomes nothing more than a shell game, however, when state governments are quietly starving their state environmental agencies of the money and workers necessary to do the job.

This report’s review of state budgets in the lower 48 states found that about half of states cut the pollution control budgets of their environmental agencies significantly (at least 10 percent) between fiscal 2008 and 2018, when adjusted for inflation. Meanwhile, environmental challenges continued or even increased—with the oil and gas industry expanding in several states, and flooding driven by climate change devastating many areas of the U.S. No one can claim “mission accomplished” with pollution control efforts when, for example, coal ash dumps are leaking toxic metals into groundwater, factory hog farms are spilling millions of gallons of waste into rivers, and more than 2,000 industrial sites across the U.S. are in significant noncompliance with the federal clean water, clean air or hazardous waste laws. This report recommends the following steps to address the problem:

- 1) Industry lobbyists and politicians should stop pretending that shifting more responsibility for environmental compliance from federal to state agencies won’t tear big holes in the safety net that protects public health. This is a fallacy when most state environmental agencies have been weakened by budget and workforce cuts.
- 2) Federal and state governments play complementary but essential roles when it comes to protecting the environment. However, neither EPA nor most state environmental agencies have enough funding to do their share. Congress can help with more funding for state

agencies, but any increases cannot be taken out of EPA operating programs, because EPA's workforce has already shrunk to levels not seen since the Reagan Administration.

3) Governors and state lawmakers should fund state environmental agencies sufficiently to allow them to hire enough inspectors, permit writers, scientists, engineers, and other professionals to implement federal laws that protect public health, clean air, and clean water. That should be done by increasing permitting fees that most states already collect.

Only by strengthening the thin green line of state environmental agencies can we protect our families, children, and grandchildren from the pollution that threatens their health and future.

Appendix

Table I. Budget Cuts to State Environmental Agencies (in millions)

State	Agency	2008 Baseline Budget (\$ mil)	Inflation Adjusted 2008 Budget (2018 \$)	2018 Budget	Percent Change
Alabama	Department of Environmental Management	56.9	66.6	60.0	-10.0
Arizona	Department of Environmental Quality	81.0	94.8	67.4	-29.0
Arkansas	Department of Environmental Quality	46.0	53.8	63.7	18.3
California	Environmental Protection Agency	2,069	2,420	4,223	74.5
Colorado	Department of Public Health and Environment	52.6	61.6	80.9	31.4
Connecticut	Department of Energy and Environmental Protection	153.4	179.5	390.0	117.3
Delaware	Department of Natural Resources and Environmental Control, Office of Environmental Protection	46.1	53.9	36.3	-32.8
Florida	Department of Environmental Protection	544.9	637.6	653.7	2.5
Georgia	Department of Natural Resources,	138.3	161.9	128.1	-20.8

State	Agency	2008 Baseline Budget (\$ mil)	Inflation Adjusted 2008 Budget (2018 \$)	2018 Budget	Percent Change
	Environmental Protection Division				
Idaho	Department of Environmental Quality	57.1	66.8	51.0	-23.7
Illinois	Environmental Protection Agency	219.3	256.6	192.1	-25.2
Indiana	Department of Environmental Management	214.3**	250.7/175*	140.0	-20**
Iowa	Department of Natural Resources	40.3	47.1	38.3	-18.8
Kansas	Department of Health and Environment, Division of Environment	70.5	82.4	73.0	-11.5
Kentucky	Department of Environmental Protection	106.0	124.0	110.7	-10.7
Louisiana	Department of Environmental Quality	163.9	191.7	125.0	-34.8
Maine	Department of Environmental Protection	72.6	85.0	70.2	-17.0
Maryland	Department of Environment	100.3	117.3	119.2	1.6
Massachusetts	Department of Environmental Protection	59.4	69.5	50.3	-27.6
Michigan	Department of Environmental Quality	284.3	332.6	351.7	5.7
Minnesota	Pollution Control Agency	169.5	198.3	201.4	1.6
Mississippi	Department of Environmental Quality	103.1	120.7	119.9	-0.6
Missouri	Department of Natural Resources, Environmental Programs	141.7	165.8	224.1	35.1
Montana	Department of Environmental Quality	91.7	107.3	101.6	-5.3
Nebraska	Department of Environmental Quality	56.6	66.2	60.3	-8.9
Nevada	Department of Conservation & Natural Resources, Division of Environmental Protection	48.5	56.8	64.7	13.9
New Hampshire	Department of Environmental Services	87.6	102.5	85.1	-17.0
New Jersey	Department of Environmental Protection	283.2	331.4	291.9	-11.9

State	Agency	2008 Baseline Budget (\$ mil)	Inflation Adjusted 2008 Budget (2018 \$)	2018 Budget	Percent Change
New Mexico	Department of Environment	77.2	90.3	66.4	-26.5
New York	Department of Environmental Conservation	380.9	445.6	307.5	-31.0
North Carolina	Department of Environment and Natural Resources (now DEQ)	116.5	136.3	90.4	-33.7
North Dakota	Department of Environmental Health (now DEQ)	36.9*	43.2	50.2*	16.3
Ohio	Environmental Protection Agency	176.6	206.6	173.4	-16.1
Oklahoma	Department of Environmental Quality	49.1	57.4	67.8	18.2
Oregon	Department of Environmental Quality	185.8*	217.4	277.2*	27.5
Pennsylvania	Department of Environmental Protection	555.9	650.4	549.8	-15.5
Rhode Island	Department of Environmental Management, Bureau of Environmental Protection	29.9	35.0	25.5	-27.0
South Carolina	Department of Health and Environmental Control	84.1	98.5	116.8	18.7
South Dakota	Department of Environment and Natural Resources	17.9	21.0	24.8	18.1
Tennessee	Department of Environment and Conservation	174.8	204.5	162.9	-20.3
Texas	Commission on Environmental Quality	493.7	577.6	374.5	-35.2
Utah	Department of Environmental Quality	54.1	63.3	75.5	19.2
Vermont	Department of Environmental Conservation	38.2	44.7	61.9	38.4
Virginia	Department of Environmental Quality	138.5	162.1	153.1	-5.5

State	Agency	2008 Baseline Budget (\$ mil)	Inflation Adjusted 2008 Budget (2018 \$)	2018 Budget	Percent Change
Washington	Depart of Health & Department of Ecology	450.4*	526.9	434.9*	-17.5
West Virginia	Department of Environmental Protection	146.7	171.6	248.1	44.6
Wisconsin	Department of Natural Resources	91.4	107.0	68.9	-35.6
Wyoming	Department of Environmental Quality	73.9	86.4	70.6	-18.3

*ND, OR and WA budgets are biennium; numbers provided are for 2008/2009 and 2018/2019. ** 2008 was an anomalous year for Indiana, with an unusual one-year spike in federal funding). So for this analysis, EIP corrected for this spike by averaging fiscal years 2007 and 2009 (\$175 million) and comparing that to 2018, resulting in a 20 percent drop.

Table 2. Staffing Cuts to State Environmental Agencies (Full-Time-Equivalent Positions)

State	Agency	2008 Staffing*	2018 Staffing*	Actual Change	Percent Change
Alabama	Department of Environmental Management	600	575	-25	-4
Arizona	Department of Environmental Quality	473	322	-151	-32
Arkansas	Department of Environmental Quality	377	336 (2017)	-41	-11
California	Environmental Protection Agency	4,434	5,689	1,255	28
Colorado	Department of Public Health and Environment	385	373	-12	-3
Connecticut	Department of Energy and Environmental Protection	1,027	988	-39	-4
Delaware	Department of Natural Resources and Environmental Control, Office of	326	258	-68	-21

State	Agency	2008 Staffing*	2018 Staffing*	Actual Change	Percent Change
	Environmental Protection				
Florida	Department of Environmental Protection	2,022	1,611	-411	-20
Georgia	Department of Natural Resources, Environmental Protection Division	888 (2009)	717	-171	-19
Idaho	Department of Environmental Quality	379	382	3	1
Illinois	Environmental Protection Agency	1,028	639	-389	-38
Indiana	Department of Environmental Management	954	805	-149	-16
Iowa	Department of Natural Resources	375	338	-37	-10
Kansas	Department of Health and Environment, Division of Environment	468	427	-41	-9
Kentucky	Department of Environmental Protection	773	712	-61	-8
Louisiana	Department of Environmental Quality	994	698	-296	-30
Maine	Department of Environmental Protection	413	372	-41	-10
Maryland	Department of Environment	977	930	-48	-5
Massachusetts	Department of Environmental Protection	697	676	-21	-3

State	Agency	2008 Staffing*	2018 Staffing*	Actual Change	Percent Change
Michigan	Department of Environmental Quality	1,568	1,228	-340	-22
Minnesota	Pollution Control Agency	919	841	-77	-8
Mississippi	Department of Environmental Quality	518	510	-8	-2
Missouri	Department of Natural Resources, Environmental Programs	864 (2009)	697	-167	-19
Montana	Department of Environmental Quality	458	462	4	1
Nebraska	Department of Environmental Quality	218	217	-1	0
Nevada	Department of Conservation & Natural Resources, Division of Environmental Protection	228	237	9	4
New Hampshire	Department of Environmental Services	547	474	-73	-13
New Jersey	Department of Environmental Protection	2,321	1,858	-463	-20
New Mexico	Department of Environment	699	638	-61	-9
New York	Department of Environmental Conservation	2,367	1,677	-690	-29
North Carolina	Department of Environment and Natural Resources (now DEQ)	1,219	793	-426	-35
North Dakota	Department of Environmental Health (now DEQ)	155 (2008/2009)	152 (2018/2019)	-3	-2

State	Agency	2008 Staffing*	2018 Staffing*	Actual Change	Percent Change
Ohio	Environmental Protection Agency	1,267	1,086	-181	-14
Oklahoma	Department of Environmental Quality	540	521	-19	-4
Oregon	Department of Environmental Quality	797 (2008/2009)	735 (2018/2019)	-62	-8
Pennsylvania	Department of Environmental Protection	2,746	2,330	-416	-15
Rhode Island	Department of Environmental Management, Bureau of Environmental Protection	212	178	-34	-16
South Carolina	Department of Health and Environmental Control	1,197	1,077	-120	-10
South Dakota	Department of Environment and Natural Resources	177	181	4	2
Tennessee	Department of Environment and Conservation	1,127	880	-247	-22
Texas	Commission on Environmental Quality	2,884	2,616	-269	-9
Utah	Department of Environmental Quality	403	388	-15	-4
Vermont	Department of Environmental Conservation	311	309	-2	-1
Virginia	Department of Environmental Quality	957	973	16	2
Washington	Depart of Health & Department of Ecology	1,676	1,603	-73	-4

State	Agency	2008 Staffing*	2018 Staffing*	Actual Change	Percent Change
West Virginia	Department of Environmental Protection	920	928	8	1
Wisconsin	Department of Natural Resources	No data available	No data available	No data available	No data available
Wyoming	Department of Environmental Quality	264	262	-2	-1

*Most recent year available used when 2008 or 2018 unavailable; year noted in table.

Table 3. State Responses to Data Supplied in Draft Form in October 2019

EIP asked for responses from states to the data presented in this report, and received 16 written replies, which are summarized below.

State	Response
Arizona	Confirmed our numbers.
Georgia	Sent FTE figures for all years. Also suggested that we include the Hazardous Waste Trust Fund and Solid Waste Trust fund in our analysis, which we did.
Iowa	Confirmed our numbers.
Kansas	Sent actual expenditures for FY07, FY08, FY17, and FY18.
Kentucky	Sent us different numbers for FY07, FY08, FY17, and FY18, but they only changed the overall trends for KY but 1-2% points. We chose to continue using the values we found in the operating budgets for each year.
Maine	Confirmed our numbers and sent us corrected budget figures for FY07.
Maryland	Confirmed our numbers, but explained that we should include the Coordinating Offices in our budget and FTE figures, which we then did.
Michigan	Confirmed our numbers, but explained that we should include the Great Lakes Office in our budget and FTE figures, which we then did.

Minnesota	Confirmed our numbers.
Alabama	Explained that we should not use the expenditures for the unallotted accounts in their budget reports and just stick to expenditures from the allotted accounts.
Montana	Confirmed our numbers.
Nebraska	Confirmed our FTE numbers and sent FTE for FY17 and FY18. Sent over budget/appropriation figures for FY07, FY08, FY17, and FY18, but we chose to use the actual expenditures we found in the state's Executive Budget Documents.
Nevada	Sent FTE numbers for FY08 and FY18.
New Mexico	Explained that we needed to use the budget figures presented under the "Total Uses" category in the Budget Recommendations for each fiscal year, not the "Sources Total" category. They also explained that we needed to remove the "Other Financing Uses" from our total, as they would be duplicative of other categories. We made these changes.
Tennessee	Confirmed our numbers.
Washington	Washington Department of Health sent over actual expenditures and FTE figures for their environmental programs. We added their FTE figures and changed out budget numbers for what they sent.

End Notes

¹ EPA Press Release, "EPA Updates Strategic Plan to Emphasize Current Environmental and Policy Goals," September 9, 2019. Link: <https://www.epa.gov/newsreleases/epa-updates-strategic-plan-emphasize-current-environmental-and-policy-goals>

² Full data for staffing and budgets were not available for Alaska and Hawaii.

³ Budgets for Alaska and Hawaii for fiscal 2008 to 2018 were not immediately available. Staffing data for Wisconsin was not available. Partial data for Ohio available (from 2011 through 2018.)

⁴ In this report, we examined the pollution control spending of state agencies – such as for controlling water pollution, air pollution, and contamination of industrial sites. We did not include spending for wildlife management, parks or major capital projects.

⁵ Staffing in this report is expressed in "full-time-equivalent" or FTE positions.

⁶ Data were available for the lower 48 states, excluding staffing figures for Wisconsin.

⁷ Gas production figures from U.S. Energy Information Administration website on natural gas production in Pennsylvania, accessed on October 25, 2019, at <https://www.eia.gov/dnav/ng/hist/n9010pa2a.htm>

⁸ EPA and state data compiled by Environmental Integrity Project. (2019, October 15). Emission Increase Database. Retrieved from <https://www.environmentalintegrity.org/oil-gas-infrastructure-emissions>.

⁹ This number excludes a significant amount of construction that was authorized by amending an existing permit, rather than by issuing a new permit. It also excludes the many thousands of construction projects authorized by the State's Standard Permit and Permit by Rule programs.

¹⁰ "Preparing for the Next Storm," Environmental Integrity Project, August 16, 2018. <https://www.environmentalintegrity.org/reports/preparing-for-the-next-storm/>

¹¹ States for which staffing data at environmental agencies from fiscal 2008 to 2018 were not available were: Wisconsin, Hawaii and Alaska. For Ohio, only partial information was available, and it showed that staffing at the

state's environmental agency dropped from 1,267 full-time equivalent positions in fiscal 2009 to 1,086 in fiscal 2018.

¹² California Environmental Protection Agency, "Major Accomplishments 2011–2018," link:

https://calepa.ca.gov/wp-content/uploads/sites/6/2019/03/CalEPA_Accomplishments_Report_2011-2018_a.pdf

¹³ EPA web page, "EPA's Budget and Spending," accessed on October 30, 2019. Link:

<https://www.epa.gov/planandbudget/budget>

¹⁴ EPA web page, "Cooperative Federalism," accessed on October 30, 2019. Link:

<https://www.epa.gov/home/cooperative-federalism-epa>

¹⁵ EPA Administrator Andrew Wheeler, memo "Principles and Best Practices for Oversight of Federal Environmental Programs Implemented by States and Tribes," October 30, 2018. Link:

https://www.epa.gov/sites/production/files/2019-04/documents/fep_oversight_memo.10.30.18.pdf

¹⁶ "Plastics Pollution on the Rise," Environmental Integrity Project, 09/05/2019.

<https://www.environmentalintegrity.org/wp-content/uploads/2019/09/Plastics-Pollution-on-the-Rise-report-final.pdf>

¹⁷ "Sour Wind in West Texas," Environmental Integrity Project, 05/09/2019.

<https://www.environmentalintegrity.org/wp-content/uploads/2019/05/West-Texas-Air-Pollution-Report-5.9.19.pdf>

¹⁸ "Texas State Energy Profile," U.S. Energy Information Administration.

<https://www.eia.gov/state/print.php?sid=TX>

¹⁹ "State of the Air 2019," American Lung Association. <https://www.lung.org/our-initiatives/healthy-air/sota/city-rankings/most-polluted-cities.html>

²⁰ EPA Enforcement and Compliance Online (ECHO) database; Texas, NAICS Code 324110, petroleum refineries. Accessed on October 25, 2019.

²¹ "Coal Production and Number of Mines by State and Mine Type, 2018 and 2017," U.S. Energy Information Administration. <https://www.eia.gov/coal/annual/pdf/table1.pdf>

²² "Groundwater Contamination from Texas Coal Ash Dumps," Environmental Integrity Project, 01/17/2019.

²³ "EPA Must Improve Oversight of State Enforcement," U.S. Environmental Protection Agency, December 9, 2011.

<https://www.epa.gov/sites/production/files/2015-10/documents/20111209-12-p-0113.pdf>

²⁴ "USGS: Louisiana's Rate of Coastal Wetland Loss Continues to Slow," USGS, 07/12/2017.

<https://www.usgs.gov/news/usgs-louisiana-s-rate-coastal-wetland-loss-continues-slow>

²⁵ "Sierra Club: The Revolution in St. James," Meghan Holmes, Louisiana Bucket Brigade, 10/10/19.

<http://labucketbrigade.org/blog/sierra-club-revolution-st-james>

²⁶ "Louisiana to Hold Hearing for Massive Formosa Plastics Toxic Chemical Complex," Julie Dermansky, Earthjustice, 07/09/19.

²⁷ "Formosa Selects St. James Parish for \$9.4 Billion Louisiana Project," Formosa Chemical Manufacturing Complex in Louisiana, USA. <https://www.formosaenergy.com/formosa-chemical-manufacturing-complex>

²⁸ EPA Enforcement and Compliance Online (ECHO) database; Louisiana, NAICS Code 324110, petroleum refineries. Accessed on October 25, 2019.

²⁹ EPA and state data compiled by Environmental Integrity Project. (2019, October 15). *Emission Increase Database*. Retrieved from <https://www.environmentalintegrity.org/oil-gas-infrastructure-emissions>

³⁰ "Louisiana State Profile and Energy Estimates," U.S. Energy Information Agency.

<https://www.eia.gov/state/?sid=LA>

³¹ "2019 State Oil and Gas: Production and Price Projections," Louisiana Department of Natural Resources, 03/19.

<http://www.dnr.louisiana.gov/assets/TAD/newsletters/2019/2019StateOilandGas.pdf>

³² "USGS: Louisiana's Rate of Coastal Wetland Loss Continues to Slow," USGS, 07/12/2017.

<https://www.usgs.gov/news/usgs-louisiana-s-rate-coastal-wetland-loss-continues-slow>

³³ Cite Raleigh News & Observer editorial

³⁴ Kendra Pierre-Louis, Nadja Popovich and Hiroko Tabuchi, "Florence's Floodwaters Breach Coal Ash Pond and Imperil Other Toxic Sites," The New York Times, Sept. 24, 2018. Link:

<https://www.nytimes.com/interactive/2018/09/13/climate/hurricane-florence-environmental-hazards.html?auth=login-email>

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- ³⁵ Environmental Integrity Project report, “Coal’s Poisonous Legacy,” March 4, 2019. Link: <https://www.environmentalintegrity.org/wp-content/uploads/2019/03/National-Coal-Ash-Report-Revised-7.11.19.pdf>
- ³⁶ Raleigh News & Observer editorial by the newspaper’s editorial board, “Shrunk DEQ budget could hurt GenX claim,” Sept. 25, 2017. Link: <https://www.newsobserver.com/opinion/editorials/article175349016.html>
- ³⁷ Data from Illinois Attorney General’s Office Senior Press Secretary Annie Thompson, via email to EIP, on October 25, 2019.
- ³⁸ Numbers on referrals as of Nov. 6, 2019, from the Illinois EPA press office.
- ³⁹ Environmental Integrity Project report, “Coal’s Poisonous Legacy,” March 4, 2019. Link: <https://www.environmentalintegrity.org/wp-content/uploads/2019/03/National-Coal-Ash-Report-Revised-7.11.19.pdf>
- ⁴⁰ EPA Enforcement and Compliance Online (ECHO) database, accessed on October 24, 2019. Link: <https://echo.epa.gov/facilities/facility-search/results>
- ⁴¹ Illinois Environmental Council web page, “Nutrient Pollution,” accessed on October 24, 2019. Link: <https://ilenviro.org/nutrient-pollution/>
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- ⁴³ It should be noted that IDEM experienced an unusual one-year spike in funding in 2008, which then dropped off sharply. However, even if we correct for that spike by averaging out the state’s spending on pollution control programs for the years 2007 and 2009, the 20 percent decline from that average (\$175 million) to the \$140 million in 2018 would remain among the highest one third of U.S. states.
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- ⁴⁵ “Lake Michigan cyanide spill shows troubling pattern, groups say,” Garret Ellison, MLive.com, 10/08/2019.
- ⁴⁶ “New Tests Reveal 15 out of 15 of Indiana’s Coal Ash Sites Are Leaking,” Jessica A. Knoblauch, Earthjustice, 08/17/2018. <https://earthjustice.org/blog/2018-august/indiana-at-a-crossroads-on-coal-ash>
- ⁴⁷ “Coal’s Poisonous Legacy,” Environmental Integrity Project, 03/04/2019. <https://www.environmentalintegrity.org/wp-content/uploads/2019/03/National-Coal-Ash-Report-Revised-7.11.19.pdf>
- ⁴⁸ EPA Enforcement and Compliance Online (ECHO) database; Indiana, NAICS Code 221320, sewer systems or sewage treatment facilities. Accessed on 10/29/19.
- ⁴⁹ EPA Enforcement and Compliance Online (ECHO) database; Indiana, NAICS Code 22, utilities. Accessed on 10/29/19.
- ⁵⁰ EPA Enforcement and Compliance Online (ECHO) database; Indiana, NAICS Code 325193, ethyl alcohol manufacturing. Accessed on 10/29/19.
- ⁵¹ Gas production figures from U.S. Energy Information Administration website on natural gas production in Pennsylvania, accessed on October 25, 2019, at <https://www.eia.gov/dnav/ng/hist/n9010pa2a.htm>. Well drilling data from Pennsylvania DEP website, “Oil and Gas Reports,” accessed the same day at <https://www.dep.pa.gov/DataandTools/Reports/Oil%20and%20Gas%20Reports/Pages/default.aspx>
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- ⁵⁴ Pennsylvania DEP fact sheet, “Pennsylvania’s Surface Mining Control and Reclamation Act Funded Abandoned Mine Lands Program: Past, Present, and Future,” accessed on October 25, 2019, at: http://files.dep.state.pa.us/Mining/Abandoned%20Mine%20Reclamation/AbandonedMinePortalFiles/AML_Fact_Sheet_Final_2019_03_11.pdf
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- ⁵⁶ Maryland Governor Larry Hogan’s letter to Pennsylvania Governor Tom Wolf on August 29, 2019. Available at: <https://governor.maryland.gov/2019/08/29/governor-hogan-calls-for-action-and-accountability-on-pennsylvanias-clean-water-progress/>