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Steam and smoke rise from a power plant in Juliette, Georgia. The Trump administration is proposing changes to the way such pollutants may be regulated.

PHOTOGRAPH BY ROBB KENDRICK, NATIONAL GEOGRAPHIC CREATIVE

ENVIRONMENT | Explainer

A running list of how President Trump is changing environmental

policy

The Trump administration has promised vast changes to U.S. science and environmental policy—and we're tracking them here as they happen.


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70 MINUTE READ



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The Trump Administration's tumultuous presidency has brought a flurry of changes—both realized and anticipated—to U.S. environmental policy. Many of the actions roll back Obama-era policies that aimed to curb climate change and limit environmental pollution, while others threaten to limit federal funding for science and the environment.

It's a lot to keep track of, so National Geographic will be maintaining an abbreviated timeline of the Trump Administration's environmental actions and policy changes, as well as reactions to them. We will update this article as news develops. 

Editor's Note: This story was originally published on March 31, 2017, and was last updated on January 9, 2019.

EPA CRIMINAL ENFORCEMENTS HIT 30-YEAR LOW

January 15

A report by the nonprofit Public Employees for Environmental Responsibility (PEER) found the Environmental Protection Agency's criminal prosecutions under the Trump administration have been the lowest they've been in 30 years.

Much of the EPA's authority comes from the agency's ability to prosecute organizations that have violated environmental standards, but the Trump administration has been vocal about scaling back regulations and reducing EPA legal authority.

Only 166 referrals were sent to the Department of Justice during the last fiscal quarter. The EPA hasn't filed such few cases since the Reagan administration. Under the Clinton administration, criminal referrals reached just under 600.

In a [press release](#), PEER attributed the steep decline to the agency's reduced budget for enforcement staff. Before leaving office, former administrator Scott Pruitt reportedly pulled agents from regional offices to staff his large security detail.

Last August, the agency also [renamed their National Enforcement Initiative](#) to the National Compliance Initiative. The change brought with it a softer approach to reprimanding polluters. For instance, a company could be allowed to negotiate an agreement to change their actions instead of facing prosecution. Though decried by environmentalists, the EPA [says](#) the change will help them tackle a broader scope of violations.

[Environmental groups](#) say not enforcing violations is a subtle way for the agency to scale back the EPA without passing large policy changes.



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TRUMP NOMINATES ANDREW WHEELER TO PERMANENT EPA JOB

January 9, 2019

Though the federal government remains shut down, President Donald Trump officially nominated Acting Environmental Protection Agency Administrator Andrew Wheeler to the post on a permanent basis on Wednesday. Wheeler had served in the acting role since July, when former EPA Administrator Scott Pruitt resigned after intense media scrutiny and ethics scandals (see below).

Confirmed by the Senate as acting administrator, Wheeler will now need an additional confirmation for the permanent job.

The former coal lobbyist has largely continued Pruitt's legacy in office. In August Wheeler released a proposed rule that would roll back fuel-efficiency and pollution standards for vehicles, as well as limit California's ability to set its own car standards. Wheeler also unveiled a proposed replacement for the Obama-era Clean Power Plan that would let states set their own rules. In December Wheeler rolled out a weakened redo of the Waters of the United States rule, which would limit oversight of a range of activities from farming to industry.

Trump said Wheeler has "done a fantastic job" in his acting role.

"For me, there is no greater responsibility than protecting human health and the environment, and I look forward to carrying out this essential task on behalf of the American public," Wheeler said in a statement upon his nomination.

"Wheeler has advanced the same destructive agenda as Pruitt, but without sideshow antics slowing him down," Brett Hartl, government affairs director at the Center for Biological Diversity, said in a statement. "If he's confirmed, Wheeler would surpass Pruitt as the most dangerous EPA administrator of all time. The Senate must not give him the chance."

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A WORLD OF CHANGE STARTS TODAY

TOGETHER, WE CAN END PLASTIC WASTE

TRUMP ADMINISTRATION ROLLS BACK OBAMA-ERA COAL RULES

December 6, 2018

The Trump administration rolled back another Obama-era climate rule when it announced Thursday it will lift some restrictions on greenhouse gas emissions from coal power plants.

The change, intended to spur construction of new coal plants, comes as scientists warned world leaders attending the UN's annual climate conference that the consequences of unchecked global warming will be severe and costly. The meeting opened with a warning from Polish President Andrzej Duda: "We are trying to save the world from annihilation..."

The easing of coal rules was announced by the Environmental Protection Agency's acting administrator, Andrew Wheeler, who said the move would "rescind excessive burdens on America's energy providers and level the playing field so that new energy technologies can be part of America's future."

Proposed changes to the New Source Performance Standards would no longer require that plants meet strict goals of achieving emissions equal to or less than what plants would have achieved with carbon capture and storage technology.

The Obama administration rule, adopted in 2015, restricted carbon dioxide pollution from future power plants and prompted a strong pushback from the coal industry that complained it inhibited new plant construction. Equipment required under the Obama rule was expensive, and criticized by the energy industry as technologically unproven.

The announcement also came the day after the U.S. Energy Information Administration released figures for coal consumption in 2018 that show a four percent decline from 2017 and the lowest level since 1979. The largest consumer of coal is the electric power sector, and the decline reflects the closing of coal plants and competition from natural gas and renewable energy sources. Energy analysts have predicted that coal is unlikely to recover in the energy market it once dominated.

Michelle Bloodworth, president and CEO of the American Coalition for Clean Coal Electricity, who appeared by Wheeler's side at the EPA press conference, praised the proposal because it will make it feasible for new plant construction.

Clare Lockwood, an attorney at the Center for Biological Diversity, called the proposal an "act of flailing, die-hard climate denial."

INTERIOR EASES DRILLING CONTROLS

PROTECTING SAGE GROUSE

December 6, 2018

The U.S. Interior Department moved forward Thursday with plans to ease restrictions on oil and gas drilling across millions of acres of protected habitat in 11 western states where the imperiled greater sage grouse lives.

Documents released by the Bureau of Land Management show the Trump administration's intention to open more public lands to lease and allow waivers for drilling in the grouse breeding grounds. The plan is the next step in the administration's efforts to rework Obama administration protections for the grouse. Interior Secretary Ryan Zinke had promised to remove obstacles to drilling. Protections of the ground-dwelling grouse have long been viewed by the energy industry as an obstacle to development.

"I completely believe that these plans are leaning forward on conservation of sage grouse," Interior Deputy Secretary David Bernhardt told the Associated Press. "Do they do it in exactly the same way, no? We made some change in the plans and got rid of some things that are simply not necessary."

Conservationists and wildlife advocates vigorously disagreed and warned that drilling could further threaten the birds' survival. The sage grouse once numbered in the millions. The population is now estimated by the U.S. Fish and Wildlife Service between 200,000 and 500,000.

"David Bernhardt spent years in the private sector advancing policy goals of special interests who profit off our public lands. Despite his clear conflicts, Zinke put him in charge of ripping apart the plans just to help those very industries that Bernhardt used to work for," Jayson

O'Neill, deputy director of the Western Values Project, a Montana-based nonprofit focused on public lands protections, said in a statement.

The administration's plans would modify protections in seven states, including Wyoming, Nevada, Utah, Colorado, California, Idaho, and Oregon. The documents released Thursday include environmental analysis of the changes in each state plan. The public can comment on that analysis before a final decision, expected to be announced in early 2019.

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NOAA GREEN LIGHTS SEISMIC AIRGUN BLASTS FOR OIL AND GAS DRILLING

November 30, 2018

Five oil and gas companies have been given the green light to use

seismic airgun blasts to search for lucrative oil and gas deposits that could be buried in the sea floor from New Jersey to Florida.

The proposal was shot down by the Bureau of Ocean Energy Management in 2017 after it was deemed unsafe for marine life, but a recent review by the National Oceanic and Atmospheric Administration (NOAA) concluded the blasts could be done without significantly threatening the population status of threatened or endangered species. The basis of NOAA's investigation was to determine whether or not the activity would violate the Marine Mammal Protection Act.

Large marine mammals like whales and dolphin use sound communicating, feeding, and mating, meaning the blasts could impact all three of those essential activities.

[Read more about how marine life will be impacted.](#)

KEYSTONE XL PIPELINE BLOCKED BY FEDERAL JUDGE

November 8, 2018

A federal judge in Montana blocked construction from beginning on the [Keystone XL pipeline](#), a 1,200-mile-long project that would deliver 800,000 barrels a day of crude oil from the Alberta, Canada, oil sands to refineries in the U.S. Pipeline operator TransCanada first proposed the pipeline in 2008; the Obama administration rejected its permit application in 2015, citing concerns about the pipeline's impact on climate. Trump reversed that decision shortly after he was inaugurated

ADVERT

in 2017. (What is the Keystone XL pipeline?)

Judge Brian Morris wrote that the Trump administration had discarded prior factual findings related to climate change to move the project forward. In so doing it had violated its responsibilities under the Administrative Procedures Act to provide a “reasonable explanation” for the changed decision. The Trump administration, Morris wrote, had failed to fully consider the climate, cultural, economic, and environmental impacts of the project—neither incorporating the latest science on climate change nor the impact on indigenous cultural resources in the pipeline's path.

The pipeline has been controversial since it was first proposed, with many environmental groups and indigenous communities strongly opposed to its construction. Construction work had been scheduled to begin in 2019. How long it will now be delayed is uncertain. The administration could appeal the ruling.



YOUTH CLIMATE CHANGE LAWSUIT DELAYED

November 8, 2018

The trial in a climate change lawsuit brought by 21 youths has been delayed again, after a federal appeals court granted the Trump administration's request that it consider halting the case.

The Ninth Circuit Court of Appeals on Thursday gave the youths' lawyers 15 days to respond to the government's petition. In a meeting with lawyers, District Court Judge Ann Aiken indicated she will

promptly set a new trial date once the appeals court lifts its temporary stay, according to Meg Ward, a spokeswoman for the youths.

The trial had been set to begin on October 29 in Eugene, but was delayed after the Justice Department asked the Supreme Court to intervene and halt it. On November 2, the justices refused and advised the government to return to the Ninth Circuit, which it did on November 5. Trump administration lawyers filed a rarely-used appeal that asks the appellate court to rule on the case before the lower court has heard it at trial.

SUPREME COURT REFUSES TO HALT YOUTHS' CLIMATE CHANGE SUIT

November 2, 2018

The Supreme Court on Friday refused to halt the trial in a case brought by 21 youths who sued the federal government for its role in causing global warming. The youths, many of whom live in regions already suffering the effects of climate change and extreme weather events, want a federal judge in Oregon to order the government to write a plan to address climate change.

The trial was to have begun October 29 in Eugene, but was delayed after the Trump administration asked the Supreme Court to intercede and block the case.

In a three-page unsigned order, the justices advised the government to take its arguments back to the 9th Circuit Court of Appeals, and left open the possibility that the government court return to the Supreme

Court. Justices Clarence Thomas and Neil M. Gorsuch said they would have granted the administration's request. The other seven justices did not indicate how they decided the government's appeal.

The justices noted the government's description of the case as "based on an assortment of unprecedented legal theories, such as a substantive due process right to certain conditions, and an equal protection right to live in the same climate as enjoyed by prior generations."

The order was the second time since July the justices denied the government's effort to stop the case as premature.

Lawyers for the youths announced they would ask that the trial begin next week.

"The youth of our nation won an important decision today from the Supreme Court that shows even the most powerful government in the world must follow the rules and process of litigation in our democracy," Julia Olson, executive director of Our Children's Trust and the co-counsel in the lawsuit, said in a statement.

The case of Juliana v. United States was filed in 2015 during the Obama administration. The youths' suit contends that the federal government pursued energy policies that caused climate change even though it knew for more than a half-century that carbon emissions would destabilize the climate, and the failure to protect future generations from the effects of climate change violated their generations' constitutional right to live in a "climate system capable of sustaining human life."

Both the Obama and Trump administration lawyers have argued repeatedly in numerous appeals that the policy-making on climate

change does not belong in court, but more properly in the realm of Congress and the federal agencies that write laws and government regulations. The youths “seek nothing less than a complete transformation of the American energy system—including the abandonment of fossil fuels—ordered by a single district court....” Solicitor General Noel Francisco wrote in a brief. He added: the “assertion of sweeping new fundamental rights to certain climate conditions has no basis in the nation’s history and tradition—and no place in federal court.”

In response to the government’s appeal, the youths’ lawyers argued that constitutional questions are traditionally addressed after trial, when a record of fact has been established, and not before. As to the potential injury, the lawyers wrote: “When a child suffers climate-induced flooding where the child sleeps, increased incidence of asthma attacks from climate-induced wildfire and smoke conditions in areas where the child exercises, dead coral reefs due to overly warm oceans where the child swims, and storm surges and rising seas perpetually attacking the barrier island where the child lives so that the child now routinely evacuates and experiences flooding in the child’s roads, home and school, those injuries are hardly generalized grievances.”

FIRST OFFSHORE OIL WELLS APPROVED FOR THE ARCTIC

October 24, 2018

After years of heated debate between conservationists and the petroleum industry about risks and rewards, the federally controlled waters of the U.S. Arctic are cleared to see their first oil and gas production wells. On Wednesday, the Bureau of Ocean Energy Management issued a conditional permit to Houston-based Hilcorp to move forward with its Liberty Project, to begin drilling from an artificial island in the Beaufort Sea.

In announcing the approval, Interior Secretary Ryan Zinke said, “Responsibly developing our resources, in Alaska especially, will allow us to use our energy diplomatically to aid our allies and check our adversaries.”

But environmentalists are concerned that the region's harsh climate, and threatened wildlife, make the project a risky gamble.

“Opening the Arctic to offshore oil drilling is a disaster waiting to happen,” Kristen Monsell, ocean legal director with the Center for Biological Diversity, said in a statement. “This project sets us down a dangerous path of destroying the Arctic. An oil spill in the Arctic would be impossible to clean up and the region is already stressed by climate change.”

Hilcorp intends to move forward by creating a gravel island in 19 feet of water about 5.6 miles off Alaska's north shore. The island would have a footprint covering 24 acres of seafloor and an area above the surface of about 9 acres. The site lies a few miles east of the massive Prudhoe Bay oil field.

Hilcorp says it hopes to extract 60,000 to 70,000 barrels per day from up to 16 wells on the island, for a total haul of 80 million to 130 million barrels over 15 to 20 years. Oil will be conveyed via an underwater pipeline.

Regulators pointed to safety features in approving the plan, including a promise to only drill into oil-bearing rock when the Arctic is frozen and restrictions on ship traffic.

But environmentalists challenge that any cleanup efforts in the remote north would be exceedingly difficult. Noise and traffic to the island may disturb whales, seals, and other wildlife, Monsell said.

U.S. PUSHES TO END CHILDREN'S CLIMATE CHANGE SUIT

October 19, 2018

A week before the start of a trial in a case brought by 21 children who sued the U.S. government for its role in causing climate change, the government is moving aggressively to end the case.

After failing to convince the Supreme Court to end the case in July, the Justice Department returned to the court this week to ask for a second time that the suit be blocked. Solicitor General Noel Francisco, in a new 38-page filing, asked the justices again to intervene and “end this profoundly misguided suit.”

On Friday, Chief Justice John Roberts temporarily halted the case and has given the lawyers for the children until Wednesday to respond.

The youths contend that the U.S. government has pursued energy policies that caused climate change, despite knowing for more than 50 years that carbon emissions would destabilize the climate; they argue the failure to protect future generations from the effects of climate change violate their generation’s constitutional right to a “climate

system capable of sustaining human life.”

The trial in the case of Juliana v. United States is scheduled to begin Oct. 29 in Eugene, Oregon.

In a statement, Julia Olson, the youth’s co-counsel and executive director of Our Children’s Trust, expressed confidence in a statement that the trial will proceed once the justices receive the youth plaintiffs’ response to the government’s “mischaracterization” of the case.

“As the Supreme Court has recognized in innumerable cases, review of constitutional questions is better done on a full record where evidence is presented and weighed by the trier of fact,” Olson said. “This case is already about recognized fundamental rights and children’s rights of equal protection under the law.”

The government’s new appeal to the Supreme Court came as both sides await a ruling from the Ninth Circuit Court of Appeals on the government’s effort to end the case.

“We are now facing a legal case where the district court is considering a matter, the Ninth Circuit is considering the same matter, and the Supreme Court has been asked to consider the matter,” says Phil Gregory, the youth’s co-counsel. “Every legal scholar I’ve talked to says they have never seen this before. It’s unprecedented.”

In July, when the Supreme Court justices declined to intercede, calling it “premature,” they also noted the “breadth” of some of the claims were “striking,” and that there are “substantial grounds for a difference of opinion.” The justices cautioned U.S. District Judge Ann Aiken to “take these concerns into account” when moving toward trial.

On Monday, in a sweeping ruling, Aiken rejected the government’s efforts to limit the case, although granted the government’s request to

dismiss President Trump as a defendant. She ordered the case to proceed to trial as scheduled.

In the government's new filing, Francisco argued that Aiken had failed to follow the high court's admonishment to "meaningfully narrow" the case. He also harshly criticized the lawsuit, arguing that not only has the case cost "taxpayers millions of dollars" as government lawyers prepare for the court battle, but that the lawsuit itself is merely an "attempt to redirect federal environmental and energy policies through the courts rather than through the political process."

The government also moved this week, in a filing dated Oct. 15, to exclude climate experts from testifying for the plaintiffs because the government does not dispute their conclusions about climate change. That was a day after Trump, in an [interview](#) with CBS's *60 Minutes*, conceded that "something's happening" to the climate, but added: "I don't know that it's man-made."

PRESIDENT TRUMP SIGNS BILL TO CLEAN UP OCEAN PLASTICS

October 12, 2018

President Trump called out other nations, including China and Japan, for "making our oceans into their landfills" when he signed legislation last week to improve efforts to clean up [plastic trash from the world's oceans](#).

“As president, I will continue to do everything I can to stop other nations from making our oceans into their landfills,” Trump said at a White House signing ceremony. “That’s why I’m please—very pleased, I must say—to put my signature on this important legislation.”

The law, passed with bipartisan support, amends the National Oceanic and Atmospheric Administration’s Marine Debris Act and funds the program through 2022. The law fosters efforts to clean up plastic trash from the world’s oceans and encourages federal trade negotiators to prod “leaders of nations responsible for the majority of marine debris” to improve management of waste that ends up in the oceans.

Trump agreed with Democratic Senator Sheldon Whitehouse, one of the bill’s co-sponsors, that trade talks with the Philippines should include plastic waste. “We’re okay with that,” he said. “I understand. A lot comes from there.”

Trump also blamed other unnamed countries that “abuse the oceans” and whose trash floats to the West Coast of the United States,” creating, he said, “a very unfair situation.”

“It’s incredible. It’s incredible when you look at it,” Trump said. “People don’t realize it, but all the time we’re being inundated by debris from other countries.”

Comparatively, the beaches of the United States are among the world’s cleanest. Kamilo Beach in Hawaii, which faces the Pacific gyre, where ocean trash collects, is the exception. But most of the world’s plastic trash collects in coastal regions and on beaches in developing nations that lack adequate municipal waste collection systems.

Japan has had for years one of the world’s highest recycling rates and earlier this year, China stopped buying the world’s trash. The United

States was one of the top sellers of recycled plastic to China.

The president's full remarks are [here](#), and the [text](#) of the Save Our Seas Act is here.

EPA TO DISBAND AIR POLLUTION REVIEW PANEL

October 11, 2018

The Environmental Protection Agency will not continue a scientific review panel that advises the agency about safe levels of pollution in the air, the [New York Times reports](#).

The 20-member [Particulate Matter Review Panel](#) has been made up of scientists who are experts in the health dangers of soot. That panel will no longer meet next year, though the agency declined to disclose why.

Conservation groups have complained that eliminating the panel will make it easier to roll back pollution standards or push through other changes with less regard to the impact on human health.

The agency has said that a seven-member panel will review federal air standards going forward, with the goal of more revisions by 2020. Conservationists have warned that this group currently only includes one independent researcher and may not be robust enough to protect public health.

BAN ON MINING NEAR YELLOWSTONE EXTENDED

October 8, 2018

U.S. Interior Secretary Ryan Zinke extended a ban on mining in a 30,000-acre area of his home state near Yellowstone National Park. Known as Paradise Valley, that part of southwestern Montana is popular with outdoor enthusiasts and tourists and is known for pricey second homes. Attractive to mining companies in recent years, the parcel of federal land is managed by the U.S. Forest Service.

Zinke's order extends the ban on all mineral extraction on the federal land for another 20 years, the maximum allowed by law. The previous Interior secretary, Sally Jewel, had enacted a two-year ban while more studies of the area were made. Meanwhile, mining companies had been making some exploratory efforts on nearby private land.

"I fully support multiple use of public lands, but multiple use is about balance and knowing that not all areas are right for all uses. There are places where it is appropriate to mine and places where it is not. Paradise Valley is one of the areas it's not," Zinke said when extending the ban, as reported by *The Hill*.

The ban was supported by Montana's entire delegation to Congress—who have also floated a bill to make it permanent—and had strong bipartisan support in the state. It was opposed by the state's mining association.

While praising the move, Aaron Weiss of the conservation group Center for Western Priorities also noted that "Secretary Zinke always seems to support conservation in his home state of Montana, while

backing the most aggressive forms of industrial development in the other 49 states."

Weiss pointed to recent efforts supported by Zinke to expand mining in Bears Ears, Grand Staircase-Escalante, and the Boundary Waters as examples of the latter.

REPORT: TRUMP ADMINISTRATION PREDICTS 7 DEGREES OF GLOBAL WARMING BY 2100

September 28, 2018

A Washington Post story highlights a startling footnote in a U.S. government agency report: a forecast that global carbon emissions will nearly double by 2100. Trump administration officials are using the dire forecast to support a rollback of Obama-era fuel efficiency standards that would increase U.S. carbon emissions.

The draft report, recently published by the National Highway Traffic Safety Administration (NHTSA), intends to justify the SAFE Vehicles Rule, the Trump administration's proposed changes to fuel efficiency standards for model year 2021-2026 passenger cars and light trucks. Trump officials would prefer to freeze these average fuel economy standards to 37 miles per gallon. The Obama-era policy would have made these standards stricter over time, to an average of 46.7 miles per gallon for model year 2025 vehicles.

According to the NHTSA report, this change would increase these vehicles' carbon emissions by nine percent from 2021 through the end of the century, an upswing of about 7.8 billion tons of CO₂. But to minimize this impact, the report emphasizes that the rollback would increase global CO₂ levels by “just” 0.65 parts per million—from a baseline of 789.11 parts per million.

It's this baseline estimate that's raising eyebrows. Currently, global CO₂ levels are about 410 parts per million, smashing natural CO₂ records from the last 800,000 years by a third. The last time CO₂ levels were this high, roughly three million years ago, sea levels were 20 feet higher than they are today.

Against this backdrop, setting a 2100 baseline of 789 parts per million is astonishing. For one, this forecast assumes that the Paris Agreement makes no dent in global CO₂ levels in coming decades. The global pact calls for limiting warming to 3.6 degrees Fahrenheit by 2100, four degrees less than the NHTSA predicts. A full seven degrees would mark a dramatic twist of Earth's thermostat knob: From the height of the last ice age to now, tropical sea surface temperatures have increased by roughly that much.

In an interview with the *Washington Post*, MIT Sloan School of Management professor John Sterman called the forecast “a textbook example of how to lie with statistics.”

“First, the administration proposes vehicle efficiency policies that would do almost nothing [to fight climate change],” he said. “Then [the administration] makes their impact seem even smaller by comparing their proposals to what would happen if the entire world does nothing.”

The Trump administration says the rule is a necessary safety fix,

arguing that it would lower the cost of newer vehicles and thus encourage people to get newer, safer cars. In an August 2018 story in the *New York Times*, outside experts questioned these arguments.

EPA REPEALS OBAMA-ERA METHANE RULES

September 18, 2018

This week, the Trump administration Environmental Protection Agency announced final new rollbacks to Obama-era climate change policy, reducing requirements on oil and gas companies to monitor and mitigate releases of methane from wells and other operations.

Methane is an extremely potent greenhouse gas and regularly seeps from energy activities. Some in the industry had complained that the Obama-era rules were too burdensome.

The Interior Department is also expected to soon release a plan to return to allowing companies to intentionally flare off methane, an activity that environmentalists had said was wasteful and contributing to carbon emissions.

Kathleen Sgamma, president of the Western Energy Alliance, praised the new changes to the *New York Times*. The Obama rules were "a record-keeping nightmare that was technically impossible to execute in the field," she told the paper. Yet environmentalists warn that more leaks will lead to more pollution.

The rules allow companies to follow laxer state guidelines and decrease the time required between inspections of equipment and for

repairing leaks. The 2016 rule was expected to cost the industry \$530 million by 2025. Yet the Obama administration had estimated that the fuel being wasted by leaks actually costs taxpayers \$330 million a year in lost natural gas royalties.

When the new EPA rule was announced attorneys general in California and New Mexico filed suit, challenging the change.

TRUMP EPA UNVEILS PLAN TO NULLIFY FEDERAL RULES ON COAL POWER PLANTS

August 21, 2018

As a candidate, one of Donald Trump's signature promises was to weaken air pollution rules on coal-fired power plants. In a speech in West Virginia Tuesday, President Trump detailed the Environmental Protection Agency's plan to reverse Obama Administration rules designed to curtail coal emissions of carbon dioxide and methane that contribute to climate change.

The Trump Administration's new plan—called the Affordable Clean Energy rule—dismantles Obama's federal rules over all American coal plants and gives regulating authority to each state. Some states, like California, may propose even harsher targets. But others, such as coal-rich states like West Virginia and Pennsylvania, are likely to loosen

emissions regulations that coal industry leaders have called burdensome and expensive.

Despite legal challenges to the Obama plan, known as the Clean Power Plan, coal plants have declined in recent years. Since 2010, more than 200 American coal plants have been retired or taken offline. In that time, other energy sources including renewables like wind and solar have become more cost-effective and reliable. Yet Trump's rules are likely to most affect aging coal plants across the country that pollute the most, making them more cost effective to run longer.

The move is likely to have a lasting effect on climate change. The U.S. is the second biggest emitter of greenhouse gasses. Obama's Clean Power Plan had intended to cut U.S. emissions 32 percent below 2005 levels by 2030. By the same measure, the Trump plan is expected to cut emissions only as much as 1.5 percent.

After the rule is submitted to the Federal Register, the public will have 60 days to comment before it is finalized. Environmental groups are expected to challenge it in court.

TRUMP ANNOUNCES PLAN TO WEAKEN OBAMA-ERA FUEL ECONOMY RULES

August 2, 2018

The Trump administration announced a long-expected plan to dismantle an Obama-era policy that would have increased vehicle mileage standards for cars made over the next decade. The Obama rules were intended to limit vehicle emissions of greenhouse gasses

that contribute to climate change.

The vehicle emissions standards had been one of the signature policies of the Obama administration to confront climate change. They required light cars made after 2012 to become almost twice as efficient by 2025—averaging nearly 54 miles per gallon—in hopes of saving billions of barrels of oil needed to burn for fuel.

The Trump administration proposal, announced by both the Department of Transportation and the Environmental Protection Agency, wouldn't nix the rules entirely but would halt the mileage targets at 34 miles per gallon by 2021. Beyond that number, some automakers complained, the targets would be too difficult to reach, and the added expense to innovate technology and alter production lines would cost jobs and increase prices for car buyers.

Other carmakers approved of the Obama rules, acknowledging that even if they were burdensome, they leveled the playing field for all automakers in all states, ensuring that no company could sell cheaper, less-efficient cars while others tried to innovate.

DOT and EPA officials cited passenger safety as their primary objective in rolling back the rules. People who owned more efficient cars would drive more, they said, putting them at greater risk of accidents. They also said that cars with better mileage would delay people from getting new cars with enhanced safety features. Some experts interviewed by the New York Times expressed skepticism at these explanations.

The Trump administration's move sets up a legal battle with more than a dozen states, led by California, that have passed their own set of higher fuel standards. Despite the relief from the Trump Administration's move, several companies have urged the

administration to return to negotiations with states to agree on a uniform set of standards across the country. They argued that a fragmented system between federal and state rules, like the one Trump's rollback creates, would be a worst-case scenario.

SUPREME COURT LETS CHILDREN'S CLIMATE CHANGE LAWSUIT MOVE TO TRIAL

July 30, 2018

Juliana v. United States, a lawsuit filed by 21 children against the federal government over climate change, is headed to trial later this year, after the Supreme Court rejected the Trump Administration's efforts to derail the case.

In a four-sentence order issued July 30, Justice Anthony Kennedy rejected the government's request that the case be stayed as "premature." Kennedy noted that the "breadth of the (children's) claim is striking..." But he cautioned that the complicated case presents "substantial grounds for difference of opinion" and warned the trial court to "take these concerns into account in assessing the burdens of discovery and trial..."

The trial is scheduled to begin October 29 in Eugene, Oregon.

The children's suit, filed in federal court in 2015 by the non-profit Our Children's Trust, alleges that the government has failed to protect Earth from the effects of climate change, putting the lives of future generations at risk and violating their basic constitutional rights to life,

liberty, and property.

The Obama Administration sought unsuccessfully to have the case dismissed, arguing remedies for climate change are better addressed by Congress than in court. The Trump Administration was named as a defendant in the case in January 2017. In March, Trump Administration lawyers filed the first of several attempts to have the case dismissed or delayed. None succeeded, prompting the appeal to the high court.

TRUMP OFFICIALS SET ASIDE EVIDENCE OF NATIONAL MONUMENTS' SUCCESSES

July 23, 2018

As the Trump administration downsized Utah's Bears Ears and Grand Staircase-Escalante National Monuments and reviewed dozens more, U.S. Department of the Interior officials dismissed evidence that the monument designations brought benefits, the Washington Post reports.

On July 16, the Interior Department's Freedom of Information Act team uploaded thousands of pages of documents that had not been completely redacted. The next day, officials took down these documents and replaced them.

The erroneously un-redacted documents contain facts that cast some monuments in a positive light. One 2017 analysis by the Bureau of Land

Management mentioned that once Grand Staircase-Escalante became a national monument, the annual rate of archaeological listings in the area more than doubled, and vandalism dropped. In December 2017, President Trump moved to shrink the monument by 46 percent.

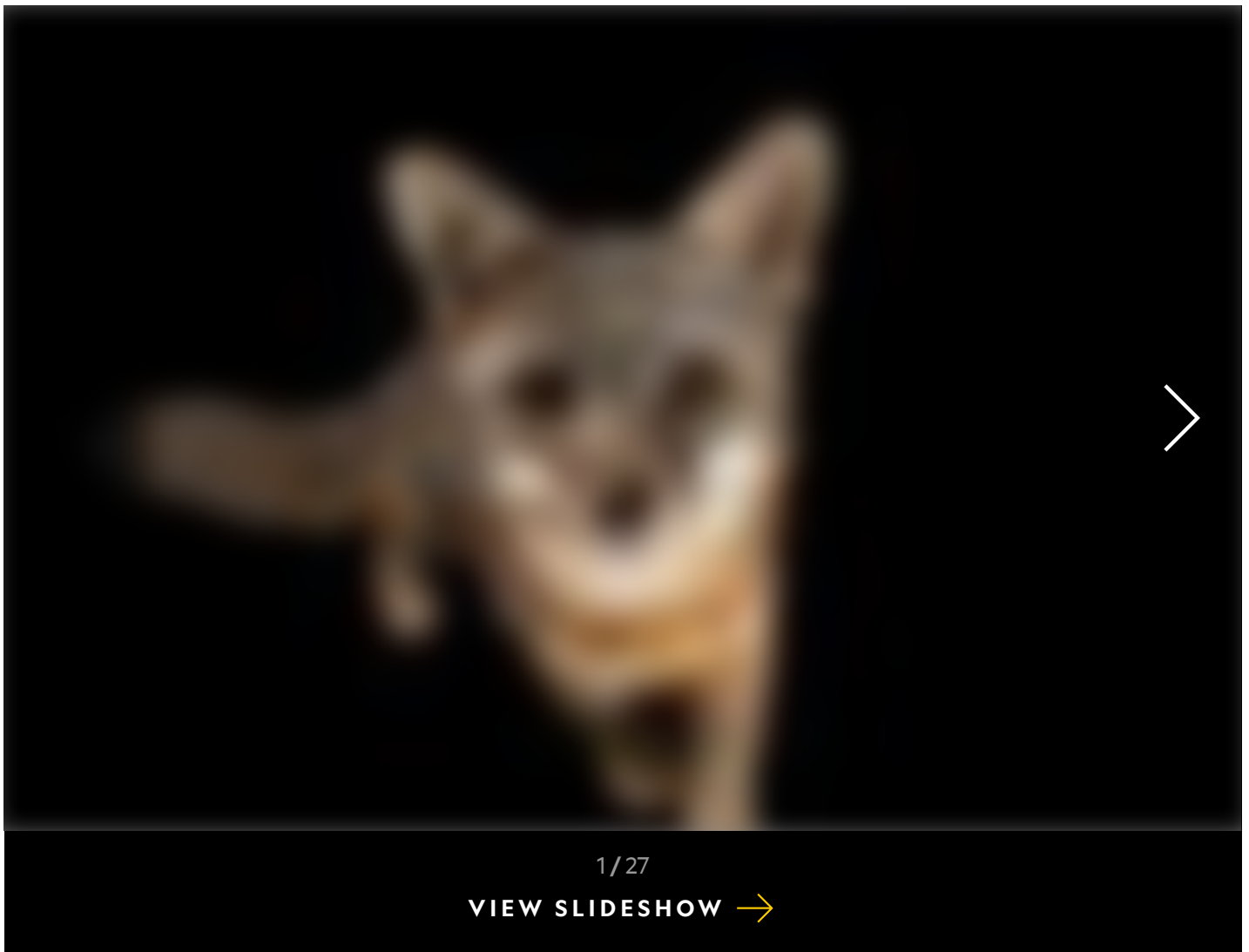
In another document, Interior Department official Randal Bowman recommended deleting fishing data from an assessment of the Northeast Canyons and Seamounts Marine National Monument. The administration reviewed the Atlantic Ocean monument—which President Obama created in 2016—amid concerns that the monument's ban on fishing hurt local fishers.

Bowman sought to nix data showing that from 2005 to 2014, about two-thirds of the area's shipping vessels generated less than five percent of their annual landings from the waters that became the monument.

“This section is based on information provided by NOAA and the Fishery Management Council, and so can be presumed accurate,” he wrote in a comment. “However, including all this information undercuts the case for the ban being harmful.”

According to legal experts interviewed by the *Post*, Trump officials could argue that the intended redactions fall under the “deliberative privilege” exemption of the Freedom of Information Act. That clause aims to protect executive branch staffers as they honestly discuss and hone policies.

ANIMALS PROTECTED BY THE ENDANGERED SPECIES ACT



A rare Santa Catalina Island fox, *Urocyon littoralis catalinae*, at Catalina Island Conservancy.

PHOTOGRAPH BY JOEL SARTORE, NATIONAL GEOGRAPHIC PHOTO ARK

TRUMP OFFICIALS PROPOSE ROLLBACKS OF ENDANGERED SPECIES ACT RULES

July 19, 2018

On Thursday, the Trump administration unveiled a proposal that would make several key changes to the Endangered Species Act—the 1973 law that has served as a bulwark against the bald eagle's extinction, among thousands of other species.

The plan calls for nixing a rule that forbids referring to the economic impacts of listing an endangered or threatened species. That said, the plan makes pains to say that determinations would still be based only on biological considerations. It also would give regulators greater freedom to avoid designating critical habitat for threatened and endangered species.

It also would tweak how the risks facing threatened species—which aren't endangered yet but could be in the foreseeable future—would be weighed. The U.S. Fish and Wildlife Service would constrain the definition of “foreseeable future” to “only so far into the future as the Services can reasonably determine that the conditions potentially posing a danger of extinction in the foreseeable future are probable.”

What's more, the U.S. Fish and Wildlife Service has proposed eliminating the blanket section 4(d) rule. Since the 1970s, this FWS policy gave threatened species all the protections given to endangered species, which face a more immediate risk of extinction, by default.

Unlike FWS, NOAA's National Marine Fisheries Service tacks on protections for threatened species one by one. The new proposal calls on FWS to adopt NOAA's case-by-case approach for future listings of threatened species. The hundreds of threatened plants and animals that currently have blanket 4(d) protections will continue to have them, according to FWS.

Already, environmental groups are strongly criticizing the plan.

“These proposals would slam a wrecking ball into the most crucial protections for our most endangered wildlife,” added Brett Hartl, government affairs director at the Center for Biological Diversity, in a statement. “If these regulations had been in place in the 1970s, the bald eagle and the gray whale would be extinct today. If they’re finalized now, Zinke will go down in history as the extinction secretary.”

The proposed changes will be posted to the Federal Register in a matter of days. The Trump administration has invited public comment on the rules, which will be open for 60 days on regulations.gov after they are posted.

EPA ADMINISTRATOR SCOTT PRUITT RESIGNS

July 5, 2018

EPA administrator Scott Pruitt resigned on Thursday, ending the tenure of the most divisive U.S. environmental lead in decades.

Pruitt's resignation, confirmed by President Trump in a statement on Twitter, comes after months of criticism and an ever-growing pile of ethics scandals.

Media reports found that Pruitt had racked up hundreds of thousands of dollars in first-class flights, a \$43,000 soundproof office phone booth, and more than \$1,500 in fountain pens. A recent CNN report also alleges that Pruitt made his staff omit parts of his schedule from

the public record.

Pruitt also caught fire for asking his staff for personal help. Pruitt reportedly asked his unprecedentedly large security detail to turn on their emergency lights as he ran late to a meal at a chic D.C. French restaurant. He also asked his detail to track down his favorite lotion, and he asked his top aides to retrieve his dry cleaning, pick up snacks, track down used hotel mattresses, and help find his wife a job.

Beyond his cavalcade of scandals, Pruitt also brought abrupt changes to U.S. environmental policy.

He halted an Obama-era request that fossil-fuel producers track methane emissions and overruled EPA scientists' plea to ban the insecticide chlorpyrifos. While Pruitt's EPA moved to make the water contaminant PFAS a national priority, officials also reportedly sought to delay a CDC report about the compound's toxicity.

The EPA under Pruitt moved hastily to end the Obama administration's signature environmental policies. Pruitt stalled the Clean Power Plan, the Obama administration's effort to regulate power-plant emissions; wanted to weaken 2022-2025 car fuel economy standards; delayed the "Waters of the United States" rule for two years; and wanted to downwardly revise the "social cost of carbon," a crucial stat when weighing the costs and benefits of fighting climate change.

Pruitt also advocated for the U.S. to leave the Paris climate accords —leaving the U.S. globally isolated on what scientists broadly agree is an environmental crisis.

In a contentious letter recently published in the *Journal of the American Medical Association*, two Harvard University researchers argue that the Trump administration's environmental policies, as

championed by Pruitt, could kill an additional 80,000 people per decade when compared to prior policy.

Deputy EPA administrator Andrew Wheeler, a former coal lobbyist, is now acting EPA administrator. He is widely expected to continue Pruitt's policies.

WHITE HOUSE CUTS NASA CLIMATE MONITORING PROGRAM

May 9, 2018

Science magazine reports that the Trump administration has ended NASA's Carbon Monitoring System, a \$10-million-per-year effort to fund pilot programs intended to improve the monitoring of global carbon emissions.

Congress directed the CMS's creation in 2010, but as *Science* reporter Paul Voosen notes, the March 2018 spending deal didn't specifically dedicate funds to the program—giving the White House sufficient latitude to wind it down. Researchers say that CMS-supported work is particularly relevant to the global Paris Agreement, especially for verifying whether the nations of the world are actually meeting their pledges to reduce carbon emissions.

"If you cannot measure emissions reductions, you cannot be confident that countries are adhering to the agreement," said Kelly Sims Gallagher, a Tufts University climate policy expert, in an interview with *Science*.

The move marks the latest efforts of the Trump administration, which

has rejected the Paris Agreement and an array of prior U.S. climate policies, to downsize NASA's climate science program. The White House has repeatedly called for the elimination of CMS and several other NASA climate missions, including the planned PACE, OCO-3, and CLARREO Pathfinder instruments. Trump officials also advocate the shutdown of the Earth-viewing instruments aboard DSCOVR, which have taken high-res pictures of our planet's sunlit half nearly every hour since July 2015.

Despite the closure of CMS, NASA will continue to operate several climate-monitoring satellites, and the agency is scheduled to launch two climate instruments to the International Space Station by the end of 2018. "The winding down of the CMS research program does not curb NASA's ability or commitment to monitoring carbon and its effects on our changing planet," said NASA spokesperson Steve Cole in a statement to National Geographic.

Yet researchers contend that without CMS's support, research into how to make sense of these data will slow.

"The topic of climate mitigation and carbon monitoring is maybe not the highest priority now in the United States," said University of Maryland climate scientist George Hurtt, the CMS science team leader, in an interview with *Science*. "But it is almost everywhere else."

Correction: A previous version of this post incorrectly attributed a quote to Harvard University scientist Daniel Jacob. The quote is actually from University of Maryland scientist George Hurtt.

EPA ISSUES CONTROVERSIAL RULE ON SCIENCE 'TRANSPARENCY'

April 24, 2018

Environmental Protection Agency Administrator Scott Pruitt proposed a rule Tuesday that would only allow the agency to consider in its rule making scientific studies for which the underlying data are made available publicly. “The science that we use is going to be transparent. It’s going to be reproducible,” Pruitt told reporters.

Industry and conservative groups have called for this change for some time, while some environmental groups warn that it could reduce the EPA's ability to consider all the evidence available when making rules on tough questions like power plant emissions and the safety of everything from pesticides to consumer products.

In a letter, nearly 1,000 scientists (many of whom used to work at the EPA) asked Pruitt to abandon the proposal, which they said “would greatly weaken EPA's ability to comprehensively consider the scientific evidence.” Much of the data that would be excluded is based on reviews of personal health information, which is often not publicly available because of privacy laws or practical challenges.

“This proposal would mean throwing out the studies we rely on to protect the public, for no good reason,” said Betsy Southerland, a longtime EPA scientist, in a press release from the Union of Concerned Scientists. “This would have an enormous and negative impact on the EPA’s ability to enforce the law and protect people’s health. Administrator Pruitt can’t carry out the basic responsibilities of his job if he insists that his agency ignore the evidence.”

The rule change is subject to a 30-day public comment period.

THREATENED SPECIES PROTECTION RULE UNDER REVIEW

April 2, 2018

The White House is currently reviewing a regulation that some environmental groups fear could nix protections granted to nearly 300 threatened species.

In a surprise rule change submitted on Monday, the U.S. Department of the Interior has proposed removing what's called the "blanket section 4(d) rule." Since the 1970s, this U.S. Fish and Wildlife Service (FWS) policy has stated that by default, threatened species receive the full protections of the Endangered Species Act (ESA).

The ESA affords wide-ranging protections to species on the brink of extinction, barring everything from outright poaching to coming too close to the species in the wild. These restrictions don't automatically apply to threatened species, but section 4(d) of the ESA says that departments can protect threatened species at their discretion.

Historically, different departments have used this discretion in different ways. By default, FWS's blanket section 4(d) rule gives threatened species every ESA protection, which regulators then clarify and whittle down. When the National Marine Fisheries Service lists a threatened species, however, it adds protections bit by bit.

The proposed removal of the blanket section 4(d) rule concerns environmental groups because it's possible that the move would

jeopardize protections for hundreds of threatened species, which aren't yet facing the threat of extinction but could in the future.

According to the Center for Biological Diversity, an environmental advocacy group, 294 species listed as threatened by the FWS are afforded protections only because of the blanket rule. The affected species include the northern spotted owl, the southern sea otter, the spotted seal, as well as eight species of coral and numerous plants.

"How are they going to deal with the species that are already listed as threatened?" asks Noah Greenwald, the endangered species director of the Center for Biological Diversity. "I think that's pretty critical, because there's no way they can publish 300 individual rules ... This certainly looks like a regulatory rollback."

That said, the rule change's impact remains unclear. The proposed regulation hasn't been released, and once it is, it will be subject to a period of public comment. The Interior Department has not yet responded to National Geographic's emailed questions about the proposed rule change.

"The Center for Biological Diversity thinks it's the worst-case scenario—it's hard for me to assume that," says Defenders of Wildlife vice president Bob Dreher, an FWS associate director during the Obama administration. "We are of course concerned, and we're going to be watching it very, very carefully."

In gearing up for the rule change, the Trump administration appears to be responding to two legal petitions filed in 2016 by the Pacific Legal Foundation—a conservative public-interest law firm—on behalf of the Washington Cattlemen's Association and the National Federation of Independent Businesses.

The groups argue that by giving threatened species all ESA protections as a default, the blanket rule functionally eliminates the distinction between endangered and threatened species. They say the arrangement illegally flouts Congress and penalizes private landowners.

Jonathan Wood, an attorney with the Pacific Legal Foundation, maintains that rescinding the blanket rule won't hurt conservation. He argues that if threatened species have fewer protections than endangered species, then private landowners have an incentive to help endangered species recover to threatened status—since the upgrade in status removes onerous regulations. ([Read more about the debate over the Endangered Species Act.](#))

“Recovery for endangered species is abysmally low ... By varying the protections, you better align the incentives of the property owners with the incentives of the endangered species,” he says. “Ideally, we boost that recovery rate.”

Environmental groups and Wood disagree vehemently on the ESA's efficacy. But they agree on one major point: the text of the regulation may take months to be released, and until then, it's unclear how threatened species will be treated.

“Without seeing the proposed rule and the reasons it gives, it's hard to say too much,” says Wood.

That said, Dreher offers a word of caution to the Department of the Interior: “If they take an approach which leaves threatened species arbitrarily unprotected, you can be sure that we and other organizations will sue.”

EPA STARTS ROLLBACK OF CAR EMISSIONS STANDARDS

April 2, 2018

In [a press release](#), EPA administrator Scott Pruitt announced that the U.S. government would revisit the Obama administration's fuel efficiency standards for cars and light-duty trucks—the first step in a rollback of one of the U.S.'s biggest efforts to curb carbon emissions.

In July 2011, President Obama announced he would tighten regulations of vehicle greenhouse gas emissions, [with rules that were first finalized in August 2012](#). Under Obama-era policy, cars and light-duty trucks would be required to have average fuel efficiencies equivalent to 54.5 miles per gallon by model year 2025.

About a sixth of U.S. greenhouse gas emissions in 2016 came from passenger cars and light-duty trucks. Overall, the Obama program would've reduced greenhouse gas emissions by 6 billion metric tons —[more than the total CO2 the U.S. emitted in 2016](#).

The EPA committed to finishing a midterm evaluation of the 2022-2025 standards by no later than April 1, 2018. On January 12, 2017, outgoing Obama EPA administrator Gina McCarthy finalized the evaluation and reaffirmed the stringent emissions standards.

At the time, car manufacturers argued that the 2022-2025 standards were unrealistic, expensive, and politically rushed. The Trump administration has enthusiastically echoed these sentiments; it restarted the midterm evaluation in March 2017.

“The Obama administration's determination was wrong,” Pruitt said in a statement. “Obama’s EPA cut the Midterm Evaluation process short with politically charged expediency, made assumptions about the standards that didn’t comport with reality, and set the standards too high.”

Automakers struck a guardedly pleased tone in releases about the announcement, seemingly leery that they may be getting more rollbacks out of the Trump EPA than they originally bargained for. Already, environmental and public health groups are voicing fierce opposition.

“Starting a process to weaken clean car standards marks yet another step backward from the fight to curb climate change,” said Harold P. Wimmer, the national president and CEO of the American Lung Association, in a statement. “Climate change poses serious threats to millions of people, especially to some of the most vulnerable Americans, including children, older adults and those living with chronic diseases such as asthma.”

“Pruitt’s rollback of the EPA clean car standards is a U-turn in the fight against climate change. We don’t know exactly how far the agency will back-track until they publish new standards, but we can be sure that it will make achieving a low-carbon transportation system more difficult and likely more expensive,” wrote Luke Tonachel, the clean vehicles director for the Natural Resources Defense Council, in a statement.

Globally, lowering U.S. emissions standards could bolster other countries to weaken their own emissions standards. Within the U.S., a rollback would set up a legal trench war between the EPA and the state of California. Under a waiver it received at the dawn of the EPA, California has the authority to set its own, more stringent emissions standards. Twelve other states and the District of Columbia—in all, a

third of the U.S. population—follow California's lead.

"We're ready to file suit if needed to protect these critical standards and to fight the administration's war on our environment," said California Attorney General Xavier Becerra in a statement. "California didn't become the sixth-largest economy in the world by spectating."

ZINKE OFFERS SUPPORT FOR GRIZZLIES IN NORTH CASCADES

March 23, 2018

In a move that pleased conservationists and infuriated cattlemen, Secretary of the Interior Ryan Zinke announced his support for efforts to return the grizzly bear to the North Cascades ecosystem.

"The grizzly bear is part of the environment, as it once was here. It's part of a healthy environment," he said according to The Seattle Times.

Zinke said that by the end of 2018, U.S. officials would complete a plan for returning the grizzly bear to the North Cascades, a rugged ecosystem that straddles the U.S. state of Washington and the Canadian province of British Columbia. The U.S. Fish and Wildlife Service estimates that fewer than 50 grizzly bears now live in the region, which is isolated from other grizzly populations in North America.

In 2013, the Fish and Wildlife Service found that the North Cascades grizzly bear warranted an endangered listing under the Endangered Species Act. The following year, the *Seattle Times* reports that the Obama administration announced a three-year recovery study. In 2017,

the study was halted; now, with Zinke's support, it will presumably continue.

FEMA EXPELS "CLIMATE CHANGE" FROM STRATEGIC PLAN

March 16, 2018

NPR reports that the U.S. Federal Emergency Management Agency has stricken "climate change" and associated verbiage from its strategic plan, on the heels of one of the most expensive years of natural disasters in modern U.S. history.

The plan, published on March 15, says that one of the agency's major strategic goals is to "ready the nation for catastrophic disasters." As NPR noted, it does discuss the potential for rising disaster costs:

Disaster costs are expected to continue to increase due to rising natural hazard risk, decaying critical infrastructure, and economic pressures that limit investments in risk resilience. As good stewards of taxpayer dollars, FEMA must ensure that our programs are fiscally sound. Additionally, we will consider new pathways to long-term disaster risk reduction, including increased investments in pre-disaster mitigation.

In a statement to NPR, FEMA Public Affairs Director William Booher said that "this strategic plan fully incorporates future risks from all hazards regardless of cause."

In the plan, FEMA does not elaborate on the causes of “rising natural hazard risk,” which include human-caused climate change. As National Geographic previously reported, two recent studies found that the record rainfall from Hurricane Harvey—which cost roughly \$125 billion—got a 15-percent boost thanks to climate change. The studies also found that climate change roughly tripled the odds of a storm of Harvey’s intensity.

The threats of climate change featured in FEMA strategic plans drafted under the Obama administration, as well as earlier ones. In a 2008 strategic plan drafted under the George W. Bush administration, then-FEMA director R. David Paulison said that future years “will likely present our nation with equally challenging events, including technological incidents, terrorist attacks, natural disasters, or extreme weather events spawned by global warming.”

EPA MULLS SHAKE-UP TO ENVIRONMENTAL RESEARCH PROGRAM

February 26, 2018

The Trump administration is thinking about reorganizing an EPA group that funds research on children’s health and environmental health disparities affecting minorities and the poor.

According to the proposal, the EPA would consolidate its National Center for Environmental Research (NCER), a branch of the EPA’s Office of Research and Development, with two other offices related to grant-making. The combined office would field Freedom of Information

Requests, manage EPA records, and administer grants.

In a statement to *Earthier*, EPA spokesperson Liz Bowman said that the move is intended to make the agency more efficient. She added that the management of research grants would continue and that none of NCER's current staff would be fired.

When news of the reorganization first broke, some raised concerns that NCER's work would fall by the wayside. Currently, NCER oversees EPA's STAR (Science to Achieve Results) program, which issues grants and fellowships to outside environmental researchers. STAR funding helps support the U.S.'s Children's Environmental Health and Disease Prevention Research Centers, which examine pollution's effects on children's health.

In 2017, STAR earned acclaim from the National Academies—the U.S.'s preeminent scientific body—for its support of high-quality science, including work showing that infants could be exposed to arsenic via rice cereal. Yet from 2002 to 2016, STAR's budget declined by more than 70 percent (adjusting for inflation) to \$36 million, E&E News reports. In its FY2019 budget request, the Trump EPA called for STAR's elimination.

In an interview with National Geographic, a senior EPA official said that the reorganized office would continue STAR if Congress funds it. The official added that new STAR grants would probably dovetail with the EPA's priorities under administrator Scott Pruitt, which the agency laid out in its 2018-2022 strategic plan.

Pruitt's "back-to-basics" plan calls for a focus on maintaining air quality, implementing recent chemical-safety reforms, funding infrastructure for drinking water, and accelerating the cleanup of Superfund sites. Missing from the document is any mention of climate change or

carbon dioxide, points of emphasis in [Obama-era EPA strategic plans](#).

TRUMP PROPOSES CUTS TO CLIMATE AND CLEAN-ENERGY PROGRAMS

February 12, 2018

In its [FY2019 budget](#) and [addendum](#), the Trump administration has proposed sweeping rollbacks to U.S. programs designed to study and mitigate the effects of climate change, as well as cuts to research on renewable energy.

At this point, the budget is merely an opening bid in negotiations with Congress; last year, lawmakers largely ignored similar proposed cuts. Nevertheless, the budget provides insight into the White House's priorities.

For instance, [the EPA budget](#) suggests eliminating the environmental agency's climate-change research program, which currently costs the agency \$16 million per year. In addition, the EPA has proposed axing [several voluntary emissions-reductions programs](#) and [STAR](#), which funds environmental research and graduate student fellowships.

Other parts of the budget trim environmental services, such as the EPA's [Report on the Environment](#), and cut the agency's Human Health Risk Assessment program by nearly 40 percent.

As it did in 2017, the Trump administration has proposed axing several NASA Earth-science missions, including PACE and OCO-3. ([Read more](#)

about the targeted missions.)

The budget also calls for shutting down the Earth-facing instruments aboard DSCOVR, which is already flying. These instruments include EPIC, which continually photographs Earth's sunlit half to measure the planet's energy budget.

The White House has proposed eliminating the U.S. State Department's Global Climate Change Initiative, which in 2017 received \$160 million in funding. The program primarily aims to help other countries better weather the impacts of climate change. Though most developing countries did little to contribute to ongoing climate change, developing countries will be more severely affected.

The Trump administration's 2019 budget also advocates for a 55-percent cut in spending on the Department of Energy's applied R&D programs. The cuts would shrink the agency's \$3.77-billion budget to slightly less than \$1.7 billion. In its justification, the White House says that the move would refocus R&D efforts from late-stage development to early-stage research.

At the same time, the budget cuts investments in early-stage research by axing ARPA-E, the Department of Energy's \$305-million advanced research program. The budget also calls for nearly a 40-percent cut to the department's Office of Energy Efficiency and Renewable Energy, even after accounting for the Bipartisan Budget Act of 2018 (BBA), which recently increased FY2019 spending levels.

At the same time, the budget calls for increases in spending on fossil fuels. Including the BBA, the Department of Energy's budget calls for an extra \$281 million on fossil-fuel R&D, \$200 million of which would be spent on "clean coal." (Can coal ever be clean?)

Unlike last year, the Trump administration is no longer proposing the destruction of the popular ENERGY STAR program, which certifies energy-efficient appliances. Instead, it wants to charge companies that seek the labeling, using those “user fees” to make the program financially self-sufficient.

REPORT: TRUMP MULLING MAJOR CUTS TO CLEAN ENERGY RESEARCH

January 31, 2018

The [Washington Post reports](#) that in its 2019 budget, the Trump administration is seeking to slash Department of Energy funding for renewable energy and energy efficiency initiatives by 72 percent.

Congress would likely oppose such steep cuts in any future budget negotiations, but the move further signals the Trump administration's avowed support of fossil-fuel industries.

News of the proposed cuts comes the day after President Trump praised “beautiful clean coal” in his State of the Union address, and several days after Trump announced steep tariffs on imported solar panels. ([Find out more about the myth of “clean coal.”](#))

According to *Post* reporters [Chris Mooney](#) and [Steven Mufson](#), leaked budget documents reportedly show that the administration is seeking to cut funding for the Department of Energy's [Office of Energy Efficiency and Renewable Energy](#) by more than 70 percent, from an enacted 2017 budget of \$2.04 billion to \$575.5 million. The *Post* also reports that the budget suggests staffing cuts, from 680 staffers in

2017 to a proposed 450 in 2019.

"I will not comment on a budget that has not been released. However, I will suggest that anyone who questions this administration's commitment to an all-of-the-above energy approach simply look at our record," Department of Energy spokesperson Shaylyn Hynes said in a statement. "Last year the Energy Department awarded hundreds of millions of dollars to solar and wind energy.

"Though it may not fit into the narrative of the environmental lobby and their pundits, the truth is that Secretary Perry believes that there is a role for all fuels—including renewables—in our energy mix."

This would not be the first time that the Trump administration has attempted to slash this sort of funding. In its 2018 budget, the Trump administration sought cuts of more than two-thirds for the Office of Energy Efficiency and Renewable Energy, which Congress rejected.

EPA LOOSENS REGULATIONS ON TOXIC AIR POLLUTION

January 25, 2018

In a brief legal memo, the Trump EPA has dropped "once in, always in" (OIAI), a Clinton-era EPA policy that aimed to lock in reductions of hazardous air pollution from industrial sources.

Industry lawyers and Senate Republicans have long argued that eliminating OIAI will actually provide a stronger incentive for

businesses to reduce emissions, since they can now more easily lower emissions and avoid the regulations that major pollution sources must endure.

However, environmental activists and lawyers are concerned with the abrupt change, saying that it may actually *increase* exposure to hazardous air pollution—especially among vulnerable populations, who live near major industrial polluters more often.

“They’re really going to be killing people,” said Hip-Hop Caucus vice president Mustafa Ali, the former environmental justice head at EPA, [in an interview with *Earther*](#). “You’re going to have all types of public health problems.”

To see how OIAI worked, imagine a business that emits 11 tons of a given hazardous air pollutant (HAP) per year. Under EPA regulations, facilities that emit more than 10 tons of one HAP, or 25 tons of HAPs in total, are reclassified from *area sources* to *major sources*.

By law, major sources must retool their processes to get their emissions down to the lowest levels set by peers within the industry. These benchmarks are called the Maximum Achievable Control Technology, or MACT, standards.

By hewing to MACT standards, let's say the company's HAP emissions go down from 11 tons per year to three tons. According to OIAI, the company would have to abide by MACT standards permanently, locking in eight tons of annual emissions reductions.

Under the new EPA policy, however, the company could do just enough to reduce emissions from 11 tons to nine. By dropping below the 10-ton threshold, the company goes from being a major source to being an area source—thereby jettisoning the MACT requirement.

While going from 11 tons of emissions to nine is technically a reduction, it's actually *more* pollution relative to what the facility could have achieved by complying with MACT standards. This phenomenon, called “backsliding,” is what OIAI aimed to prevent.

Environmental groups are poised to sue the EPA to block the policy change.

“This is among the most dangerous actions that the Trump EPA has taken yet against public health,” said John Walke, clean air director at the Natural Resources Defense Council (NRDC), in [a statement](#). “NRDC will fight this terrible decision to unleash toxic pollutants with every available tool.”

MOST OF NATIONAL PARKS ADVISORY BOARD RESIGNS IN PROTEST

January 15, 2018

Nine of the 12 members of the [National Park System Advisory Board](#) resigned on January 15, [the Washington Post reported on January 16](#), in protest of Interior Secretary Ryan Zinke's refusal to meet with them.

First chartered by Congress in 1935, the civilian group [is required](#) to contain academic experts, experienced park managers, and at least one former elected official from an area adjacent to a national park.

The board advises the National Park System, the National Park Service, and the Secretary of the Interior on a wide range of matters, and it also helps to select national historic landmarks. Its members are unpaid.

"I wasn't voted in, but I realize I represent people beyond myself," says Carolyn Finney, a University of Kentucky geographer who had served on the board since 2010. "When you slam the door in the face of me and the board, you're also slamming the door on a whole lot of other people."

In a joint letter, Finney and other departing board members expressed frustration at Secretary Zinke's refusal to meet with them.

"For the last year we have stood by waiting for the chance to meet... We understand the complexity of transition but our requests to engage have been ignored, and the matters on which we wanted to brief the new Department team are clearly not part of its agenda," wrote Tony Knowles, the board's departing chair and a former Alaska governor, in a resignation letter co-signed by Finney and seven other board members.

"I wish the National Park System and Service well and will always be dedicated to their success," Knowles's letter continued. "However, from all of the events of this past year I have a profound concern that the mission of stewardship, protection, and advancement of our National Parks has been set aside."

In May, the *Washington Post* reported that the Interior Department began a sweeping review of more than 200 advisory boards and other entities associated with the department. Around the same time, EPA administrator Scott Pruitt dismissed several members of the agency's Board of Scientific Counselors.

REPORT: CLIMATE CHANGE WEB SITES 'CENSORED' UNDER TRUMP

January 10, 2018

A [new report](#) finds that in the first year of the Trump administration, U.S. government websites have been systematically altered to cut mentions of climate change. However, there is no evidence of tampering with climate data.

The report, published by the nonprofit [Environmental Data & Governance Initiative \(EDGI\)](#), says that several government agencies—notably the EPA—have removed or reduced their web content about climate change.

Since Trump's inauguration, the group has monitored thousands of government web pages for changes or deletions. In some instances, "climate change" is replaced with the vaguer words "sustainability" or "resiliency." In others, some climate change webpages are taken down entirely.

For instance, the Bureau of Land Management's [web page on climate change](#) was taken down between May and November 2017, the report states. The EPA's ["Student's Guide to Global Climate Change"](#) went offline sometime between February and April 2017.

"While we cannot determine the reasons for these changes from monitoring websites alone, our work reveals shifts in stated priorities and governance and an overall reduction in access to climate change information, particularly at the EPA," the group says.

EDGI emphasizes that, so far, it hasn't seen evidence of the removal or deletion of climate data sets, as some scientists and activists had

feared.

(Full disclosure: the National Geographic Society has given grants to Data Refuge and the Climate Adaptation Knowledge Exchange, which are archiving U.S. climate data.)

TRUMP INTERIOR DEPARTMENT DECLARES THAT ACCIDENTAL BIRD DEATHS ARE LEGAL

December 22, 2017

Reversing Obama-era policy, the Trump administration has decreed that it will no longer consider the accidental killing of birds—from eagles colliding with wind turbines to ducks zapped on power lines—a violation of the Migratory Bird Treaty Act (MBTA).

“It reverses decades of precedent over 20 administrations,” says Sarah Greenberger, the National Audubon Society’s vice president of conservation policy. “It’s a shocking step to break with that kind of tradition, and it’s of great concern.”

The law, which turns a hundred years old in 2018, is among the United States’ oldest and widest-reaching environmental protections. Originally envisioned to save birds from overhunting, the law now safeguards more than 1,025 migratory bird species and their eggs, feathers, and nests. Illegally killing a protected bird can result in a \$15,000 fine and up to six months in jail.

The law—which prohibits harming protected species "at any time, or in any manner"—had been interpreted as forbidding “incidental takes,”

the accidental yet foreseeable deaths of birds from industrial activity. But the phrase itself does not appear in the law. Through the years, some U.S. courts had questioned whether the MBTA really does cover incidental takes.

In a memo published on January 10, 2017, Hilary Tompkins—the outgoing solicitor for the Obama Interior Department—found that all forms of incidental take were prohibited under the MBTA. In her memo, she cites the U.S. Fish and Wildlife Service’s longtime interpretation of the law and decades of successful prosecutions.

Tompkins also notes that Canada—the co-signer of the Migratory Bird Treaty of 1916, which sparked the MBTA—interprets it as requiring the prohibition of incidental takes.

But on February 6, the incoming Trump administration rescinded Tompkins’ guidance, pending a review. On December 22, it was replaced entirely by a memo reaching the opposite conclusion, relying in part on some U.S. courts’ skeptical rulings.

The analysis, penned by Daniel Jorjani—one of the Trump Interior Department’s highest-ranking lawyers and a former adviser to the Koch brothers—instead finds that the word “take” describes a willful, deliberate act. What’s more, he says that for industry, the threat of being prosecuted for incidental takes is an undue burden.

“Interpreting the MBTA to apply to incidental or accidental actions hangs the sword of Damocles over a host of otherwise lawful and productive actions,” Jorjani wrote in the new memo.

Conservation groups are outraged by the decision. If the MBTA no longer covers incidental take, some experts fear that industry may not invest in systems that save many birds’ lives, such as covers for oil pits,

more widely spaced power lines, or camera systems that slow wind turbines when birds are present.

"The statement made by this administration basically says that the real problem...is poaching birds for feathers for ladies' hats," says Defenders of Wildlife vice president Bob Dreher, who served as associate director of the U.S. Fish and Wildlife Service under Obama. "They're turning this thing into an antique."

Energy companies, in particular, have been regularly penalized for incidental takes. After the Deepwater Horizon oil spill in 2010, the largest in U.S. history, federal officials used the MBTA to secure \$100 million in fines from BP that went toward bird conservation efforts.

One 2014 study found that the spill killed anywhere from 600,000 to 800,000 birds in the Gulf of Mexico, including a third of the northern Gulf's laughing gull population.

Renewable energy and fossil-fuel groups alike have praised the MBTA reversal. "This commonsense approach ensures that lawful activities are not held hostage to unnecessary threats of criminalization," the National Ocean Industries Association said in a statement.

"We don't dispute the need for energy," says Greenberger. "It just seems so unnecessary to have taken this step."

News of the reversal comes as National Geographic, the National Audubon Society, and the Cornell Lab of Ornithology kick off the Year of the Bird. The joint effort will explore and celebrate birds, as well as document the threats facing them.

"I think we will celebrate, but we also intend to use this partnership to remind people how much of a part of our lives birds are—and what it takes to protect them," says Greenberger.

This entry has been updated to include comment from Bob Dreher.

TRUMP DROPS CLIMATE CHANGE FROM LIST OF NATIONAL SECURITY THREATS

December 18, 2017

President Donald Trump has announced that the United States will no longer regard climate change by name as a national security threat.

The stance marks an abrupt turn from the Obama administration, which in 2015 described climate change as "an urgent and growing threat to our national security," given its effects on natural disasters, conflicts over food and water, and refugee crises.

In contrast, the Trump administration's national security strategy, published Monday, discusses climate change only within the context of U.S. energy policy.

"Climate policies will continue to shape the global energy system, [and] U.S. leadership is indispensable to countering an anti-growth energy agenda that is detrimental to U.S. economic and energy security interests," the report reads. "Given future global energy demand, much of the developing world will require fossil fuels, as well as other forms of energy, to power their economies and lift their people out of poverty."

As National Geographic has previously reported, humans' dramatic alteration of the global climate is not only scientific fact, but it also

poses numerous security threats to the United States and the world.

Depending on the region, extreme weather events—such as droughts, wildfires, heatwaves, and torrential rains—may become more frequent and intense under climate change, posing threats to military installations and civilian communities alike. As weather patterns change, some disease-bearing creatures such as mosquitoes will enjoy longer active seasons over wider areas, exacerbating threats to public health.

In addition, rising seas threaten to cripple coastal military infrastructure, an ongoing concern at the U.S. Navy's installation in Norfolk, Virginia. Melting ice means that the normally ice-clogged Arctic is poised to transform into a major shipping route, altering regional geopolitics. Warmer, more acidic waters will kill off many coral reefs, which supply food and income to millions. And as sea levels rise, flooding will displace coastal populations.

"We've seen that 700,000 refugees coming from Syria have shaken the European Union to its core. Take that number and multiply it by 100 who would be forced to leave the coasts, and that's the kind of change we are going to unleash upon ourselves," said David Titley, a climate scientist at Penn State University and retired U.S. Navy rear admiral, in a previous interview.

"The impacts of that on security or economics are fundamentally unknowable," he added. "But anybody who thinks that's not a huge risk is probably smoking something."

Despite Trump's change in emphasis, it's possible that U.S. government research on climate change will continue—under an assumed name. Since Trump's inauguration, U.S. government websites seeking to scrub "climate change" from their records have opted to swap out the phrase

for the word “resilience.”

For instance, a division within the Department of Defense’s environmental research programs that had been named for climate change is now named for “resiliency.” An EPA web page devoted to “climate ready” water management now discusses “resilient water utilities.”

What does President Trump’s national security strategy say about “resilience,” then?

“Resilience includes the ability to withstand and recover rapidly from deliberate attacks, accidents, natural disasters, as well as unconventional stresses, shocks, and threats to our economy and democratic system,” the report states. “Through risk-informed investments, we will build resilient communities and infrastructure to protect and benefit future generations.”

TRUMP UNVEILS PLAN TO DRAMATICALLY DOWNSIZE TWO NATIONAL MONUMENTS

December 4, 2017

In a speech delivered in Salt Lake City, President Trump announced his intention to sharply reduce two Utah national monuments established by his predecessors.

In a move presaged by leaked government documents, Trump announced that he would reduce the 1.35-million acre Bears Ears National Monument, created by President Barack Obama in late 2016,

by 85 percent. The president also said he would cut the 1.88-million acre Grand Staircase Escalante National Monument, designated by President Bill Clinton in 1996, nearly in half.

Indian nations, conservation groups, and paleontologists have filed suit over the expected changes, among the most sweeping efforts taken by a U.S. president to downsize national monuments.

(For more, read our extensive coverage of the proposed changes—and what they actually mean.)

INTERIOR DEPARTMENT PROPOSES LARGEST-EVER OIL AND GAS LEASE AUCTION

October 23, 2017

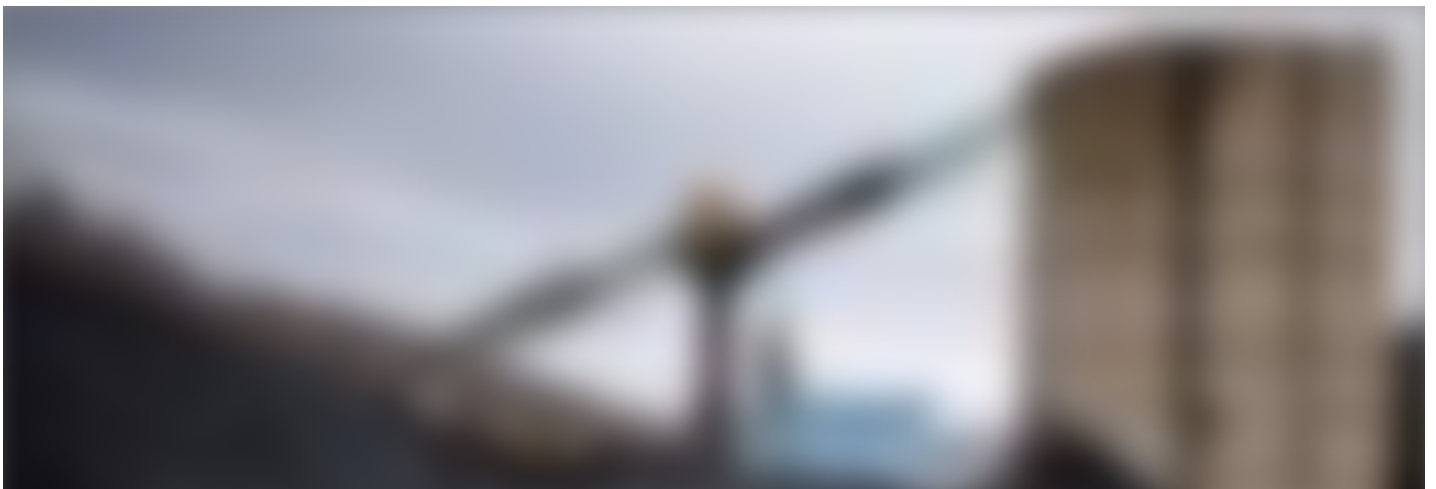
The U.S. Department of Interior has proposed auctioning off oil and gas leases for 77 million acres of federal waters within the Gulf of Mexico—the largest lease auction of its kind ever announced.

In an October 23 statement, the Interior Department says that it will auction off the oil and gas leases for all available unleased areas on the Gulf of Mexico's outer continental shelf, in waters off the coasts of Texas, Louisiana, Mississippi, Alabama, and Florida. The auction is about a million acres larger than the most recent auction of its ilk, which occurred under the Obama administration in August 2016.

“In today’s low-price energy environment, providing the offshore industry access to the maximum amount of opportunities possible is part of our strategy to spur local and regional economic dynamism and job creation and a pillar of President Trump’s plan to make the United States energy dominant,” said Interior Secretary Ryan Zinke in a statement.

The U.S. Bureau of Ocean Energy Management estimates that the Gulf of Mexico’s outer continental shelf contains over 48 billion barrels of oil and 141 trillion cubic feet of gas that are technically recoverable. EPA estimates suggest that if these fossil fuels were burned completely, they would add the equivalent of more than 28 billion tons of carbon dioxide to the atmosphere—more than five times the United States’ total carbon footprint in 2016.

The announcement comes days after an oil pipeline off the coast of Louisiana spilled some 672,000 gallons of oil into the Gulf of Mexico, the largest oil leak in the Gulf since the 2010 *Deepwater Horizon* disaster, which was more than 300 times bigger. Forecasters say that the oil, which dispersed under 5,000 feet of water, is not expected to impact the shoreline, according to an ABC report.





Mounds of unsold coal stand above ground at ERP Compliant Fuels' Federal No. 2 mine near Fairview, W.Va., April 11, 2016. With Donald Trump's win in the race for the White House, scores of regulations that have reshaped the contours of corporate America over the last eight years suddenly seemed vulnerable.

PHOTOGRAPH BY LUKE SHARRETT, THE NEW YORK TIMES/REDUX

TRUMP EPA POISED TO SCRAP CLEAN POWER PLAN

October 9, 2017

The U.S. Environmental Protection Agency is poised to withdraw the Clean Power Plan, the lynchpin of the Obama Administration's effort to combat climate change, the New York Times reported Monday.

In a speech delivered in Hazard, Kentucky, EPA Administrator Scott Pruitt declared that he will sign a proposal on Tuesday that would eliminate the Clean Power Plan (CPP), claiming that “the war on coal is over.”

Unveiled in 2015, the Clean Power Plan mandated that the U.S. power sector's carbon emissions be cut by 32 percent from 2005 by 2030 (870

million tons of CO₂), slashing the single biggest contributor to the country's overall carbon footprint.

Utility companies and 27 states sued the EPA over the rule, arguing that because the CPP encouraged a broader shift away from coal-fired power plants, the EPA had overstepped its authority under the Clean Air Act. The rule remained in legal limbo as a result.

President Trump campaigned on repealing the CPP, decrying it as an unfair burden on the coal industry and overall economy. EPA Administrator Pruitt, a longtime ally of fossil-fuel interests, advocated for the CPP's repeal when he was Oklahoma's attorney general.

A new report by the Rhodium Group, a policy research firm, finds that the U.S. power sector is now on track to reduce its 2030 emissions by 27 to 35 percent relative to 2005, in line with the CPP's initial goal. However, as the *New York Times* noted, that same report finds that the CPP would have required up to 21 states to cut their emissions more deeply than existing regulations call for. As a result, the CPP likely would have reduced U.S. power-sector emissions even further.

Beyond the potential climate hazards, experts and advocates have criticized the CPP's repeal on public health grounds. Not only do coal-fired power plants emit carbon dioxide, but they also emit sulfur dioxide, nitrogen oxides, and fine particulate matter—all potent respiratory irritants. The Obama Administration's EPA had estimated that the CPP would bring up to \$54 billion in climate and public health benefits, avoiding 1,500 to 3,600 premature deaths and 90,000 asthma attacks in children.

The EPA under Trump has taken a different tack. In a leaked draft obtained by POLITICO, the cost-benefit analysis for repealing the CPP

at times assumes that fine particulate matter (PM2.5) levels below the National Ambient Air Quality Standards pose no health hazard. There is little scientific evidence to support this claim, says George Thurston, an expert on air pollutants' health risks at the New York University School of Medicine.

"It's just as specious as saying people are at absolutely no risk of a car accident below the legal speed limit," Thurston said in a teleconference organized by the American Lung Association.

MINING HEALTH STUDY HALTED; CLIMATE ADVISORY PANEL DISBANDED

August 22, 2017

The Trump administration has suspended a study of health risks to residents who live near mountaintop removal coal mine sites in the Appalachian Mountains. The National Academies of Sciences, Engineering, and Medicine was asked by the Interior Department's Office of Surface Mining Reclamation and Enforcement in an August 18 letter to "cease all activities" involved in the two-year, \$1 million research project while the department undertakes a review of projects costing more than \$100,000. The review was prompted by "the department's changing budget situation," the letter said.

The academies undertook the study last year at the request of West Virginia's state government, after researchers at the University of West Virginia and other institutions found increased risks of birth defects,

cancer, and premature death, according to reporting by Ken Ward, Jr. of the Charleston, West Virginia *Gazette-Mail*.

President Trump proposed cutting \$1.6 billion—or 12 percent—from the Interior budget in 2018. Interior Secretary Ryan Zinke told a Senate committee in June that he supports the budget cuts, which includes cutting 4,000 jobs. “This is what a balanced budget looks like,” he said.

The academies went ahead with previously planned meetings in Hazard and Lexington, Kentucky communities to hear from coal country residents.

“The National Academies believes this is an important study and we stand ready to resume it as soon as the Department of Interior review is completed,” William Kearney, the academies executive director said in a statement. The academies are private, nonprofit institutions that conduct independent analysis and provide advice on complex public policy issues related to science, technology, and medicine, the statement says. They operate under an 1863 congressional charter signed by President Lincoln.

Meanwhile, the Trump administration also disbanded a federal advisory panel for the National Climate Assessment. The 15-member group was created in 2015 to help businesses and state and local governments understand and prepare for the government’s next National Climate Assessment. That report, required by law to be issued every four years, is due in 2018. A National Oceanic and Atmospheric Administration spokeswoman said the disbanding of the advisory panel, whose charter expired August 20, will not affect completion of the National Climate Assessment.

TRUMP REVOKES FLOOD STANDARDS ACCOUNTING FOR SEA-LEVEL RISE

August 15, 2017

President Trump has signed an executive order revoking federal flood-risk standards that incorporated rising sea levels predicted by climate science.

Trump's new executive order claims to improve federal infrastructure decisions by quickening and streamlining the environmental review process. A single sentence takes the additional step of revoking Executive Order 13690, signed by President Barack Obama on January 30, 2015.

That executive order required that federally funded projects hew to a Federal Flood Risk Management Standard, to reduce the risk of future flood damage. Specifically, the order required that floodplains had to be based on the "best-available, actionable hydrologic and hydraulic data and methods that integrate current and future changes in flooding based on climate science."

From 1993 to 2016, global average sea level has increased by about 3.25 inches and is projected to rise one to four feet by the end of the century. Higher sea-level rise cannot be ruled out, due to incomplete data on Antarctic ice-shelf stability. Since the 1960s, tidal flooding has increased at least fivefold in several U.S. cities.

U.S. cities are predicted to see more floods in the coming years. A recent Union of Concerned Scientists report found that chronic flooding—a flood roughly every two weeks—will come to affect more than 170 U.S. coastal communities in less than 20 years and some 670 communities by 2100.

REPORT: EPA ENFORCEMENT LAGS UNDER TRUMP

August 10, 2017

A [newly published report](#) asserts that in its first six months, the EPA under the Trump administration is off to a slow start enforcing environmental laws.

The report, published by the nonprofit [Environmental Integrity Project](#), examined lawsuits filed by the EPA from January 20 to July 31, 2017, roughly the Trump administration's first six months in power. Over that time, the EPA has filed fewer lawsuits against companies for breaking pollution control laws than the agency had during the opening months of the Clinton, George W. Bush, and Obama administrations.

The Trump EPA also lags by other key metrics, the report finds. So far, its actions against violators have avoided 22 estimated premature deaths, and it has collected \$12 million of civil penalties. In comparison, the Obama administration had avoided some 229 premature deaths and collected \$36 million in penalties—and in its first six months, the EPA under George W. Bush had avoided some 618 premature deaths and had collected \$30 million in penalties.

"This is the weakest start any of us has seen in at least 24 years," says Eric Schaeffer, the executive director of the Environmental Integrity Project and the EPA's former director of civil enforcement.

In a press call, Schaeffer and the report's other coauthors expressed

concern that the Trump EPA will not make enforcement a priority—a fear they say is only reinforced by proposed budget cuts. The Trump administration has called for a 23-percent cut to the agency's enforcement budget and an agency-wide budget cut of 31 percent.

In a statement, EPA deputy assistant administrator Patrick Traylor emphasized that the report's short time window can't account for the months to years it can take to police possible violators.

"This 'snapshot' assertions (sic) say much more about enforcement actions commenced in the later years of the Obama administration than it does about actions taken in the beginning of the Trump administration," he adds. "Despite this unfair report, EPA is committed to enforcing environmental laws to correct noncompliance and promote cleanup of contaminated sites."

INTERIOR DEPARTMENT RELAXES ASPECTS OF SAGE GROUSE PROTECTION

August 7, 2017

The Department of the Interior has released the results of a 60-day review of the Obama administration's conservation plan to protect the greater sage grouse. The review, ordered in June by Interior Secretary Ryan Zinke, was intended to determine if that plan interferes with Trump administration efforts to increase energy production on federal lands.

In light of the newly published review, Secretary Zinke recommends reprioritizing oil development within the broader 2015 plan, among other changes. Environmental groups have rebuked the overhaul, arguing that changes to the 2015 plan could dilute protections for the species.

“Today, the administration’s review opens the door to significant changes to the sage-grouse plans, which could undercut the sound science used to develop those plans and jeopardize what we know the bird needs to live and thrive,” said Eric Holst, the associate vice president of working lands for the Environmental Defense Fund, in a statement. “By reopening the federal plans, we risk undermining and undoing one of the greatest collaborative conservation efforts in our nation’s history.”

The Obama plan was drawn up as an alternative to a U.S. Fish and Wildlife Service decision to list the sage grouse for protection under the Endangered Species Act. The approach, which involved a five-year negotiation between 1,100 ranchers, environmental groups, and state and federal agencies, was hailed as an unprecedented collaboration that had reduced the threat to sage grouse habitat while avoiding a more stringent regulatory intervention that might hinder economic development. Fish and Wildlife declined to list the sage grouse after the collaborative conservation plan was unveiled in 2015.

The sage grouse habitat spans 173 million acres in 11 western states, including the Dakotas, and three Canadian provinces. Before the West was settled, the sage grouse once roamed over 290 million acres. In launching the 60-day review, Zinke said: “While the federal government has a responsibility under the Endangered Species Act to responsibly manage wildlife, destroying local communities and levying onerous regulations on the public lands that they rely on is no way to

be a good neighbor.” Rewriting the Obama plan could extend beyond President Trump’s term, when public comment periods, new proposals and legal challenges are taken into account.

EPA DROPS DELAY OF OBAMA-ERA OZONE STANDARDS

August 2, 2017

In an about-face spurred by a 16-state lawsuit, the Trump administration EPA has dropped its decision to delay Obama-era regulations on ozone. The potent lung irritant forms when strong sunlight irradiates emissions from vehicles, power plants, and other sources.

In October 2015, the Obama administration tightened the ozone national standard from 75 parts per billion to 70 parts per billion, citing ozone’s toll on public health. The Obama administration estimated that the reduction would yield \$2.9 to \$5.9 billion worth of health benefits in 2025, outweighing its estimated annual cost of \$1.4 billion.

Few were entirely thrilled with the 2015 regulations. Environmental and public-health groups criticized the regulation as not stringent enough, citing evidence that ozone still poses a public health threat at 70 parts per billion, the upper end of the ozone standards recommended by scientists advising the EPA. Meanwhile, industry groups and their allies in Congress criticized the rule for the costs it would inflict.

In June, the EPA announced its intent to delay the implementation of

the rule from October 1, 2017, to October 1, 2018, citing lingering questions and the regulation's complexities. In response, 16 Democratic state attorneys general and the District of Columbia petitioned the U.S. Court of Appeals for the District of Columbia to review the one-year delay.

In its reversal the next day, the EPA cited its "commitment to working with the states."

NOAA CANCELS RULE TO PROTECT WHALES FROM FISHING NETS

June 13, 2017

The Trump Administration this week cancelled a rule that would have helped prevent endangered whales and sea turtles from becoming entangled in fishing nets off the U.S. West Coast. Proposed in 2015, the rule would have closed the swordfish gill net fishery for up to two years if any two individual endangered whales or sea turtles were killed or seriously hurt within a two-year period. The same penalties would have applied if any combination of four bottlenose dolphins or short-finned pilot whales were injured or killed within a two-year period.

This week, however, the National Oceanic and Atmospheric Administration's fisheries division announced that the rule is no longer necessary because other protections have reduced the number of marine mammals entangled in gill nets. "What changed is that our more detailed analysis demonstrated to us that the hard caps would likely impose significant additional cost on the fleet without much additional conservation benefit," says Michael Milstein, a NOAA

fisheries spokesman.

Entanglements were common in the 1990s. But only two gray whales have been killed or seriously injured since 2012, according to NOAA. The short-beaked dolphin is the most frequently entangled marine mammal, and the number of annual entanglements of this species has declined from 200 killed in the early 1990s to fewer than 10 injured or killed in 2015.

New net design has helped reduce casualties, NOAA says. But environmentalists say that a more likely explanation for the reduced entanglements is the significant drop in the number of fishermen working the waters. The swordfish fleet has declined by almost 90 percent since the 1990s—from 141 boats in 1990 to just 20 boats in 2016. Leatherback turtles, humpback whales, and sperm whales are still being killed in gill nets, a spokeswoman for the Center for Biological Diversity told the Los Angeles Times.

INTERIOR SUGGESTS SHRINKING BEARS EARS

June 12, 2017

Interior Secretary Ryan Zinke recommended that Bears Ears National Monument in southern Utah's red rock country be shrunk by President Trump. Zinke declined to say at a press conference how much Bears Ears' boundaries should be downsized. But he suggested the rich cache of ancient tribal artifacts inside the monument—one of the

largest collections in the nation—could be protected in a much smaller area surrounding the Bears Ears twin butte formation and another section to the north of what is now a 1.3-million-acre expanse.

The boundary details will be forwarded to Trump later this summer, Zinke said, along with his review of 26 other national monuments. Zinke says legislation will also be proposed so that Congress determines how areas inside national monuments are managed. Bears Ears, for example, also contains wilderness areas inside its boundaries.

The president had asked Zinke in April to review large monuments as part of an effort to increase development on federal lands. Bears Ears is one of two controversial Utah national monuments that drew the ire of Utah lawmakers, who asked Trump to consider rescinding or shrinking them. Bears Ears, created by President Barack Obama last December after several years of negotiations with state and tribal leaders, was singled out by Trump as a “massive federal land grab.” The other is Grand Staircase Escalante, created by President Clinton in 1996, with little public involvement.

Zinke said the Utah delegation and state lawmakers, including Gov. Gary Herbert, support his recommendations. But supporters of Bears Ears existing boundaries expressed disappointment as well as doubts that Trump’s efforts to shrink Bears Ears would survive a court challenge. Randi Spivak, spokeswoman for the Center for Biological Diversity, an environmental group based in Tucson, Arizona, said the recommendation to downsize Bears Ears contradicts the intentions of the Antiquities Act, which enables presidents to set aside federal land for protection and signed into law by President Theodore Roosevelt in 1906. “It’s time for Zinke to stop pretending he’s a Teddy Roosevelt kind of guy,” Spivak said.

INTERIOR TO REVIEW GREATER SAGE GROUSE PROTECTION

June 8, 2017

Interior Secretary Ryan Zinke on Wednesday ordered a review of an Obama administration conservation plan to protect the greater sage grouse to determine if that plan interferes with Trump administration efforts to increase energy production on federal lands. The Obama plan was drawn up as an alternative to a U.S. Fish and Wildlife Service decision to list the sage grouse for protection under the Endangered Species Act. The approach, which involved a five-year negotiation between 1,100 ranchers, environmental groups, and state and federal agencies, was hailed as an unprecedented collaboration that had reduced the threat to sage grouse habitat while avoiding a more stringent regulatory intervention that might hinder economic development. Fish and Wildlife declined to list the sage grouse after the collaborative conservation plan was unveiled in 2015.

The sage grouse habitat spans 173 million acres in 11 western states, including the Dakotas, and three Canadian provinces. Before the West was settled, the sage grouse once roamed over 290 million acres. In launching the 60-day review, Zinke said: "While the federal government has a responsibility under the Endangered Species Act to responsibly manage wildlife, destroying local communities and levying onerous regulations on the public lands that they rely on is no way to be a good neighbor." Rewriting the Obama plan could extend beyond President Trump's term, when public comment periods, new proposals and legal challenges are taken into account.

U.S. PULLS OUT OF PARIS CLIMATE AGREEMENT

June 1, 2017

President Trump said that he will pull the U.S. out of the Paris climate agreement, steering away from a group of 194 other countries that have promised to curb planet-warming greenhouse gas emissions. The news came just days after he attended the G7 Summit in Italy, where the six other member countries—Germany, Italy, Canada, France, Japan, and the United Kingdom—reaffirmed their commitment to the 2015 climate pact.

As part of the accord, the U.S. had agreed to cut its emissions between 26 and 28 percent below 2005 levels by 2025. In abandoning that promise, the U.S. effectively cedes leadership on the issue to other countries, including the world's top emitter, China. Chinese President Xi Jinping has stood by the agreement in the face of a wavering U.S., calling it a “hard-won achievement” that should be honored. Still, plummeting prices for wind and solar energy and corporations’ support of clean energy are among the reasons why climate progress will likely continue.

TRUMP BUDGET PROPOSES STEEP CUTS FOR THE ENVIRONMENT

May 23, 2017

President Trump's 2018 budget, sent to Congress Tuesday, calls for massive cuts in scientific research and in a slew of environmental programs that protect air and water. The proposed budget, titled "A New Foundation for American Greatness," slashes the Environmental Protection Agency's budget by 31 percent – a steeper cut than any other agency. Those cuts could translate into a \$2.7 billion spending reduction and the loss of 3,200 jobs, according to an analysis by the World Resources Institute. The proposed budget eliminates major programs to restore the Great Lakes, Chesapeake Bay, and Puget Sound. It ends the EPA's lead-risk reduction and radon detection programs and cuts funding for the Superfund cleanup program.

The budget proposal does, however, retain funding for grants and financing to states and cities for drinking water and wastewater programs. S. William Becker, executive director of the National Association of Clean Air Agencies, told the Washington Post that he "was amazed" that the final EPA budget is nearly identical to the preliminary budget released in March, despite strong opposition at the time from many members of Congress. In addition, the Interior Department would undergo a 12 percent funding cut, and the Energy Department a six percent cut.

OBAMA METHANE RULE REMAINS LAW OF LAND

May 10, 2017

In a surprise 51-49 defeat, the U.S. Senate rejects a measure that would have repealed Obama-era regulations on methane emissions. That regulation, which the House of Representatives voted to rescind on

February 3, limits the venting and flaring of natural gas from oil and gas facilities on U.S. Bureau of Land Management lands. The Obama administration had argued that the practices wasted tens of billions of cubic feet of natural gas annually—and also posed a climate threat. Methane is a potent greenhouse gas, with 25 times the warming capacity of carbon dioxide.

EPA DISMISSES SCIENCE ADVISORS

May 5, 2017

The EPA dismisses several members of the Board of Scientific Counselors, an 18-member advisory board that reviews the research of EPA scientists. Some of the dismissed scientists had been assured that their three-year terms on the board would be renewed. In a May 7 story by the New York Times, critics assailed the move, casting it as a gift to business interests at the expense of science. An EPA spokesperson said the decision allowed the agency to consider a more diverse pool of applicants, including industry representatives, for the board.

In addition, the Washington Post reported on May 8 that Interior Secretary Ryan Zinke has started reviewing more than 200 advisory boards and other entities associated with the Interior Department.

EPA SCRUBS CLIMATE CHANGE WEBSITE

April 28, 2017

The EPA announces that it is reviewing its web content related to climate change. An immediate casualty of the review: the agency's longtime website devoted to explaining climate change. (The new page, which says it's being updated "to reflect EPA's priorities under the leadership of President Trump and Administrator Pruitt," prominently links to an archived version of the page.) On May 2, 2017, the EPA also purged the Spanish-language version of its climate change web page.

ORDER AIMS TO EXPAND OFFSHORE DRILLING

April 28, 2017

President Trump signs an executive order that orders a review of Obama-era bans on offshore oil and gas drilling in parts of the Arctic, Pacific, and Atlantic Oceans. The Obama policies under review include a five-year oil leasing roadmap that excluded Alaska's Beaufort and Chukchi Seas and a December 2016 attempt to permanently ban drilling on wide swaths of Arctic and Atlantic waters. NPR reports that the order also halts the designation or expansion of National Marine Sanctuaries, unless the move includes an Interior Department estimate of the area's "energy or mineral resource potential." Conservation groups immediately announce their intent to defend Obama's December 2016 effort in court.

TRUMP INNER CIRCLE DISCUSSES PARIS AGREEMENT

April 27, 2017

Key Trump advisers and Cabinet officials meet to discuss whether the U.S. should stay in the Paris Agreement, according to an April 27 Bloomberg Politics report. The global climate pact was absent from Trump's March 28 executive order on climate, and debate over whether the U.S. should leave the agreement has divided the White House. *Bloomberg Politics* and *Politico* report that Trump is expected to make a final decision on the global climate pact by late May.

TRUMP ORDERS REVIEW OF NATIONAL MONUMENTS

April 26, 2017

In a sweeping executive order with few precedents, Trump instructs Interior Secretary Ryan Zinke to review as many as 40 national monuments created since 1996 to determine if any of Trump's three predecessors exceeded their authority when protecting large tracts of already-public land under the Antiquities Act of 1906. The review targets monuments that are at least 100,000 acres in size and reaches back to Utah's 1.7-million-acre Grand Staircase-Escalante National Monument, which President Bill Clinton created in 1996 in the face of intense opposition. (Read more about the executive order's potential repercussions.)

SCIENTISTS MARCH ON WASHINGTON

April 22, 2017

On a drizzly Earth Day, thousands of scientists and science enthusiasts march through Washington, D.C., to the U.S. Capitol, voicing support for science's role in society. The sign-toting crowds—many wearing lab coats and crocheted hats resembling brains—also protest the Trump administration's environmental and science policies. Satellite events of the March for Science held around the world, more than 600 in all, draw tens of thousands more attendees.

INTERIOR DEPARTMENT SCRUBS CLIMATE CHANGE WEBSITE

April 19, 2017

An Interior Department official updates the department's climate change website, deleting much of its content in the process, Motherboard reports. The page now carries a sole mention of "climate change"—and does not explain what the phenomenon is, how it affects the U.S., and what the department is doing about it. (The Interior Department has eight regional Climate Science Centers, which work under the direction of the U.S. Geological Survey "to help resource managers cope with a changing climate," according to the archived web page.)

PRUITT CALLS FOR EXITING PARIS AGREEMENT

April 14, 2017

In an interview on “Fox & Friends,” EPA administrator Scott Pruitt says that he’s personally opposed to the Paris Agreement, the international pact to fight climate change negotiated in 2015. While Pruitt calls the pact “a bad deal for America,” the Trump administration has remained noncommittal on withdrawing from the agreement, reports the Washington Post.

EPA ANNOUNCES “BACK-TO-BASICS” AGENDA

April 13, 2017

With Pennsylvania’s Harvey coal mine as his backdrop, EPA administrator Scott Pruitt announces a “back-to-basics” agenda for the environmental agency, which he describes as “protecting the environment by engaging with state, local, and tribal partners to create sensible regulations that enhance economic growth.” The agenda includes reviews of the Clean Power Plan and the Waters of the United States rule, two key Obama-era environmental regulations, as well as promises to clear the backlog of new chemicals awaiting EPA approval. (Read the whole agenda here.)

CLIMATE CHANGE STAFFERS REASSIGNED

April 7, 2017

News outlets report that several staff members at EPA's headquarters who specialized in climate change adaptation have been reassigned. However, an EPA official interviewed by *The Hill* emphasizes that the agency's regional offices "have always taken the lead on adaptation and will continue to do so." An EPA official interviewed by National Geographic says that the staff—four employees in all—will continue at the agency's Office of Policy, bringing their knowledge to a broader set of issues.

TRUMP DONATES TO NATIONAL PARKS

April 3, 2017

The White House announces that President Trump has donated the first quarter of his salary (\$78,333.32) to the National Park Service. The gift will reportedly chip away at the \$100 to \$230 million in deferred maintenance backlogs that the nation's battlefields currently bear. (The National Park Service's total deferred maintenance backlog is valued at \$12 billion.) Trump's 2018 budget blueprint calls for a \$1.5-billion cut to the U.S. Department of the Interior, to which the National Park Service and its \$3.4-billion budget belong. Among other things, the 12-percent cut would eliminate funding for unspecified National Heritage Areas—lived-in, cohesive landscapes deemed by Congress to be nationally important. Several National Heritage Areas contain

preserved battlefields.

SCIENTIFIC INTEGRITY OFFICE REVIEWING PRUITT

March 31, 2017

In response to inquiries from the Sierra Club, the EPA's Office of Inspector General refers Scott Pruitt's March 9 CNBC interview to the agency's scientific integrity office for review. In that interview, Pruitt had downplayed carbon emissions' central role in driving Earth's changing climate—a position at odds with scientific consensus. EPA spokespeople defend Pruitt, claiming that the administrator is within his right to have a differing opinion. As of April 6, 2017, the Office of Inspector General said that the review had no specified timeframe.

EPA SCIENTIST RETIRES WITH A BANG

March 31, 2017

Environmental scientist Michael Cox retires from the EPA after more than 25 years with the agency, penning a scorching farewell letter to agency administrator Scott Pruitt. The letter, which garners significant media coverage, lambasts the Trump administration for “working to dismantle EPA and its staff as quickly as possible.”

PESTICIDE AVOIDS TOTAL BAN

March 29, 2017

Against the advice of the EPA's chemical safety experts, EPA administrator Scott Pruitt rejects a decade-old petition asking that the EPA ban all use of the pesticide chlorpyrifos. In 2000, the EPA banned its use in most household settings, but the pesticide is still used on some 40,000 farms, which EPA scientists recommended stop. Research suggests that chlorpyrifos may be associated with brain damage in children and farm workers, even at low exposures—though Dow Chemical, chlorpyrifos' manufacturer, argues that it is safe when properly used. The U.S. Department of Agriculture welcomes Pruitt's decision as helpful for U.S. farmers.

CLIMATE ACTIONS UNDONE

March 28, 2017

President Trump signs an executive order that seeks to dismantle much of the work on climate change enacted by the Obama administration. The order takes steps to downplay the future costs of carbon emissions, walks back tracking of the federal government's carbon emissions, rescinds a 2016 moratorium on coal leases on federal lands, and strikes down Obama-era executive orders and memoranda aimed at helping the country prepare for climate change's worst impacts, including threats to national security.

Most notably, the executive order begins the process of rescinding the EPA's Clean Power Plan, an Obama-era regulation designed to reduce carbon dioxide emissions from new and existing power plants. (Read

more about the order—and how China may take up global leadership on climate change.)

DAKOTA ACCESS PIPELINE PREPARED FOR USE

March 27, 2017



Military veterans and tribal leaders, despite heavy snow and winds, march along Highway 1806 in Cannon Ball, North Dakota, in support of the Standing Rock Sioux Tribe's protest of the Dakota Access Pipeline.

PHOTOGRAPH BY ALYSSA SCHUKAR, THE NEW YORK TIMES/REDUX

Energy Transfer Partners, the company building the Dakota Access Pipeline, notifies a federal court that it has pumped oil into the pipeline laid underneath North Dakota's Lake Oahe. The pipeline, which aims to connect North Dakota's shale oil fields with pipeline networks in Illinois, runs near the Standing Rock Sioux Reservation and through land promised under the 1851 Treaty of Fort Laramie but later taken away. The pipeline sparked protests over its potential to contaminate water and damage a sacred tribal site—a movement that grew into the largest Native American protest in recent history. (Meet the defiant "water protectors" of Standing Rock.)

KEYSTONE XL PIPELINE APPROVED

March 24, 2017

The Trump administration's State Department grants a permit for the construction of the Keystone XL pipeline. The 1,200-mile pipeline would connect Alberta's oil sands to refineries in Texas. President Obama had rejected the project in late 2015, amid concerns that the pipeline's economic benefits were hype—and fears that the pipeline would exacerbate future carbon emissions. In 2014, the U.S. State Department found that the project would increase emissions but no more than other transport methods.

U.S. BUMBLEBEE OFFICIALLY LISTED AS ENDANGERED

March 21, 2017

The rusty patched bumblebee (*Bombus affinis*) officially becomes listed as an endangered species, the first bumblebee and eighth U.S. bee species to receive federal protection. Originally, its listing was to be finalized on February 10—but a January 20 executive order delayed it by over a month, as the Trump administration reviewed Obama-era regulations that hadn't yet taken effect. ([Read more about the bumblebee listing.](#))

FLINT FUNDING CONTINUED

March 17, 2017

The EPA [issues a news release](#) saying that the agency has awarded \$100 million to Michigan's Department of Environmental Quality. The money—provided in a law signed by President Obama in December 2016—will fund drinking water infrastructure upgrades in Flint, Michigan, where drinking water [remains contaminated with lead](#). ([These intimate portraits of Flint's citizens reveal their frustration, fear, and perseverance.](#))

FUEL EFFICIENCY STANDARDS RECONSIDERED

March 15, 2017

EPA Administrator Scott Pruitt and U.S. Secretary of Transportation Elaine Chao announce that the EPA will reconsider the Obama-era emissions requirements for vehicles with model years between 2022

and 2025. The move may presage a rollback of Obama's Corporate Average Fuel Economy (CAFE) standards, regulations that aim to improve cars' fuel economy. On January 12, 2017, the Obama EPA attempted to lock in its CAFE standards, which require light-duty vehicles to have average fuel efficiencies of 54.5 miles per gallon by 2025. The Trump administration and automakers have argued that this goal is unachievable.

SCIENCE AND ENVIRONMENT BUDGET THREATENED

March 13, 2017

The White House releases its first preliminary budget under President Trump. Confirming weeks of speculation, the budget outlines deep cuts to U.S. science and environmental agencies—notably EPA and NOAA, the National Oceanic and Atmospheric Administration—and a vast array of social programs, in an effort to increase defense spending by \$54 billion. Congressional and public opposition to the budget crystallizes almost immediately. (Read more about the budget cuts' potential effects on the environment.)

EPA CHIEF DOWNPLAYS CLIMATE

March 9, 2017

In a sharp break with scientific consensus, EPA administrator Scott Pruitt says in an interview on CNBC's "Squawk Box" that carbon dioxide's role in the Earth's changing climate remains unclear. U.S. and international scientists have repeatedly connected rising carbon emissions to the Earth's changing climate. A 2014 review by the National Academy of Sciences, the United States' preeminent scientific advisory body, observed that the Earth's warming since the 1970s "is mainly a result of the increased concentrations of CO2 and other greenhouse gases."

'SCIENCE' SCRUBBED

March 7, 2017

The New Republic reports that the EPA's Office of Science and Technology removed the word "science" from its mission statement, based on information provided by the Environmental Data and Governance Initiative. The updated language, which instead emphasizes "economically and technologically achievable performance standards," marks the latest change to the EPA's website under Trump, as website updates downplay the Obama administration's previous climate initiatives.

EMISSIONS INFO REQUEST NIXED

March 2, 2017

The EPA withdraws an Obama EPA request for more detailed

information on oil and natural-gas facilities. That request, finalized by the Obama administration on November 10, 2016, had aimed to better track the industry's methane and volatile organic compound (VOC) emissions. (Oil and gas facilities are the country's largest industrial emitters of methane.) The Trump EPA had criticized the rule for its estimated \$42-million cost on oil and gas industries.

FEDERAL LANDS WON'T BE UNLEADED

March 2, 2017

After riding to work on a horse, U.S. Interior Secretary Ryan Zinke spends his first day on the job rescinding an Obama-era prohibition of lead ammunition on federal lands and waters. The Obama Administration's Fish and Wildlife Service had issued the ban on January 19, 2017, the day before Trump's inauguration. The National Rifle Association and hunting groups laud Zinke's move as supportive of hunting's economic contribution, while conservation groups decry it, noting that lead ammunition can poison wildlife. (Learn how a ban on lead ammunition could save California's rare condors.)

WATER PROTECTION MAY DRY UP

February 28, 2017

President Trump issues an executive order formally asking the EPA to review the "Waters of the United States" rule, an Obama-era rule meant to clarify which U.S. waters fall under federal Clean Water Act

jurisdiction. The rule had extended federal protections to some headwaters of larger waterways, wetlands, and isolated lakes. ([Read more about the controversy surrounding the rule.](#))

SCOTT PRUITT CONFIRMED AS EPA CHIEF

February 17, 2017

The U.S. Senate [confirms Scott Pruitt](#) as the head of the U.S. EPA. In his prior role as Oklahoma's attorney general, Pruitt frequently sued the EPA over its regulations, notably leading a 27-state lawsuit against the Clean Power Plan. Emails released days after Pruitt's confirmation show that in his time as Oklahoma's attorney general, Pruitt's office [maintained a cozy relationship with oil and gas companies.](#)

STREAMS REOPENED TO MINING WASTE

February 16, 2017

President Trump signs [a joint resolution passed by Congress](#) revoking the U.S. Department of the Interior's "Stream Protection Rule." That rule, finalized shortly before President Obama left office, [placed stricter restrictions](#) on dumping mining waste into surrounding

waterways. Congressional Republicans characterized the rule as redundant and onerous. (Read "Why Trump Can't Make Coal Great Again.")

FOSSIL FUEL CEO BECOMES CHIEF DIPLOMAT

February 1, 2017

The U.S. Senate confirms ExxonMobil CEO Rex Tillerson as secretary of state. Tillerson's extensive ties to fossil fuels—and difficult-to-pin-down stance on climate science—sparked fierce opposition to his nomination among environmentalists. Questions linger over what Tillerson and the Trump administration will do about U.S. involvement in the Paris Agreement, the international climate pact negotiated under the Obama administration.

MARCH FOR SCIENCE MATERIALIZES

January 25, 2017

After news that the Trump administration had removed all references to climate change from the White House's website, online commenters begin calling for a "Scientists' March on Washington," styled after the record-breaking Women's March on January 21. Momentum quickly builds, resulting in plans for the March for Science, scheduled for April 22.

PIPELINES GREENLIT

January 24, 2017

President Trump issues several memoranda aiming to hasten permitting for the [Dakota Access](#) and [Keystone XL](#) oil pipelines. Trump also calls for the U.S. Department of Commerce to come up with a plan ensuring that pipelines built across the United States are made with U.S. steel. However, later reports clarify that the memo [does not apply to the Keystone XL pipeline](#).

PARK SERVICE #RESISTS

January 20, 2017

Trump is inaugurated president. Minutes later, the National Park Service posts a photo on Twitter comparing Trump's crowds with the much larger crowds at Barack Obama's 2009 inauguration. Trump's subsequent criticism of the National Park Service triggers an unofficial "resistance" movement of social media accounts that claim to be run by U.S. government officials. ([Read more about the "science rebellion" blossoming under Trump.](#))

SCRAMBLE TO SAVE SCIENCE DATA

December 10, 2016

Fearing that the incoming Trump administration may attempt to

delete or bury U.S. climate databases, meteorologist and climate journalist Eric Holthaus asks on Twitter [for suggestions of important databases to back up](#). His query sparks a movement across academia to back up key databases, resulting in “data refuges” and the [Environmental Data and Governance Initiative](#).

TRUMP TAKES ALL

November 8, 2016

Real estate developer Donald Trump wins the 2016 U.S. presidential election. His upset victory comes after a months-long campaign that focused little on environmental issues, but did denounce the Obama administration’s climate policies and champion the U.S. fossil fuels industry.



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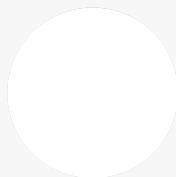
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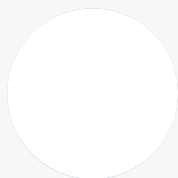


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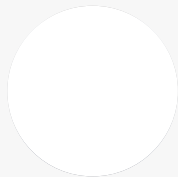
[Michael Greshko](#) is a writer for National Geographic's science desk.

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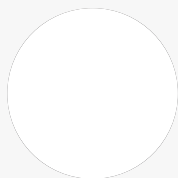
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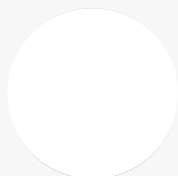
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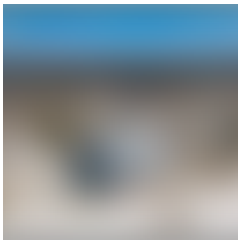
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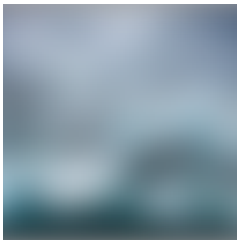
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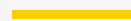
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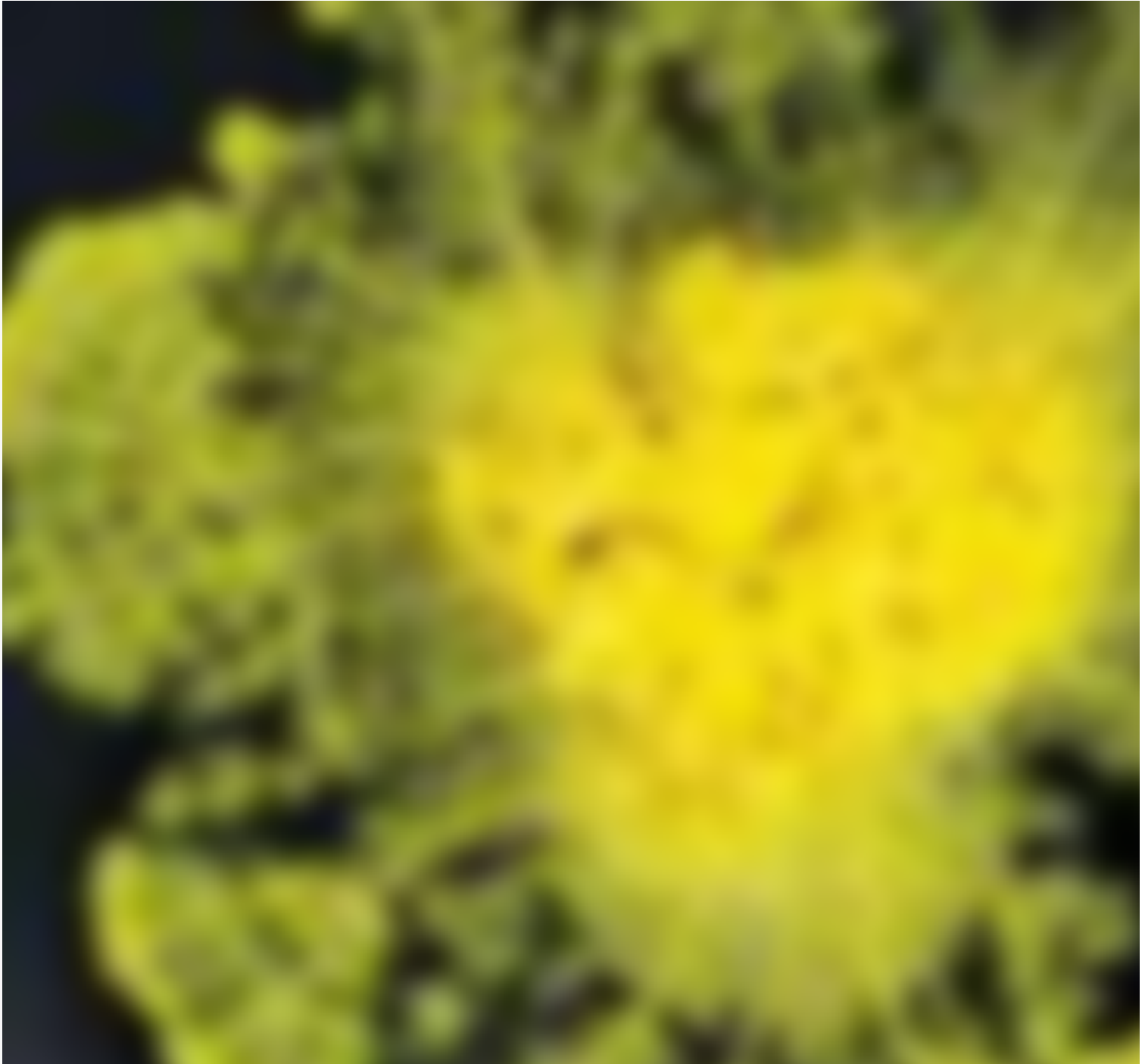
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JANUARY 16, 2019



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