

A toxic agenda

EPA chief Scott Pruitt is undermining chemical safety—and EDF is fighting back

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Timeworn and vulnerable

For millennia, ancient bristlecone pines have survived as the dominant tree species in the windswept high country of Eastern California. Now this tree is being overtaken by limber pines, normally seen downslope, as the tree line inches up due to climate change. Even the world's oldest trees are under stress as the planet warms. EDF is working for policies to rein in climate change and to minimize its effects on the world around us.

The Fourth Wave of environmentalism



Across the nation, Americans are fed up with being needlessly exposed to toxic pollutants. Consider the case of Wendy Hartley, whose 21-year-old son died from exposure to methylene chloride in a paint stripper. Working with Hartley—and others like her—EDF is fighting the Trump administration’s attempted rollback of chemical safety regulations (*see p. 8*).

Despite the administration’s wholesale assault on environmental values, I believe progress is still possible. Take, for example, the defeat of Michael Dourson, President Trump’s dangerous choice to head EPA’s toxics office. Dourson was simply too extreme for the post, and EDF helped expose his long history of downplaying the risks of chemicals he would have been regulating at EPA. The withdrawal of his nomination was a major win. My thanks to EDF’s members, whose support helped make this victory possible.

News like this offers hope as we look ahead. But more broadly, my optimism about the future is bolstered by the emergence of what I call Fourth Wave Environmentalism—innovations that are giving individuals and groups the power to monitor and respond to environmental and public health threats as never before.

Environmentalism’s First Wave dates to the late 19th and early 20th centuries and the creation of the first national parks. The Second Wave, from the 1960s, saw the development of environmental regulation (and the creation of EPA) to deal with widespread pollution. The Third Wave began in 1990, when McDonald’s teamed up with EDF to reduce billions of tons of waste. This Third Wave was dedicated to market-based approaches and partnerships between corporations and environmental groups.

In environmentalism’s Fourth Wave, technological innovation is giving people unprecedented power to scale environmental solutions, and supercharge the approaches of the previous waves. In West Oakland, CA, for example, we put sensors on Google Street View cars to map air pollution threats on a sub-block basis, giving local community leaders like Margaret Gordon information that previously not even government could provide (*see p. 16*). Technological innovation is giving local groups and entrepreneurs better tools to monitor pollution and resource use in every area of environmental activity—the climate, the oceans, ecosystems and public health.

We need strong regulations more than ever, but the Fourth Wave is beginning to make data transparent and available to everyone. When government fails to protect its citizens, people will have the power to take action themselves.

Fred Krupp
EDF President



Finding the ways that work

Environmental Defense Fund’s mission is to preserve the natural systems on which all life depends. Guided by science and economics, we find practical and lasting solutions to the most serious environmental problems.

Our work is made possible by the support of our members. Donate online at edf.org/newsletter or by mail: EDF, attn.: Member Services, 1875 Connecticut Ave NW, Ste. 600, Washington DC 20009.



On the cover:

As our photo-illustration (toxic logo added) suggests, the Trump administration is putting industry profits over people, endangering public health. EPA

Administrator Scott Pruitt has been trying to stock his staff with agents of the chemical industry, and sabotaging a new law designed to protect Americans from toxic chemicals. *Solutions* writers reveal how EDF is fighting back.

Cover photo illustration: Anu Pegu. Photo: Reuters

Solutions

Editor Peter Klebnikov
Art Director Janice Caswell

Environmental Defense Fund
257 Park Ave. South
New York, NY 10010

Main number 212-505-2100
Membership questions 800-684-3322
or members@edf.org

WE WANT TO HEAR FROM YOU
Send feedback to address above or email editor@edf.org

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©2018 Environmental Defense Fund.
Published quarterly in New York, NY
ASSN 0163-2566

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Defending your rooftop solar

As more Americans install solar systems on their homes, some utilities are trying to charge solar customers extra fees, which can cancel their savings from cheaper electricity. EDF opposed two such requests in Texas and won both. Two utilities, Oncor and El Paso Electric Company, together serving 10.5 million customers, filed requests with the state to add new charges for solar customers. After EDF intervened in the cases, the companies reached out to us to negotiate and eventually



123RF

withdrew their requests. “Despite Trump’s 30% tariffs on solar imports, there’s no stopping solar in Texas,” says John Hall, EDF associate vice president.



MINIEN PICTURES

Golfers tee up to help monarchs

Monarch butterflies are in dire need of breeding and foraging habitat. U.S. golf courses cover 2.5 million acres of green space. Of that, about 100,000 acres are not used for actual playing. These areas could host monarch butterflies, whose numbers have plummeted 90% in the last 20 years. A key reason is loss of milkweed, which monarch caterpillars need to survive.

EDF has teamed up with Audubon International to create Monarchs in the Rough, a program helping golf courses across North America restore

habitat for monarchs and other pollinators. So far, more than 200 courses have signed up to create habitat.

The first step is planting native milkweed. Monarchs lay their eggs on the plants, and the caterpillars feed on them. The program also encourages other conservation practices, such as minimizing pesticide use. “Our hope is that America’s 29 million golfers become more aware of the plight of pollinators and the need for everyone to be part of the solution,” says EDF manager Dan Kaiser.

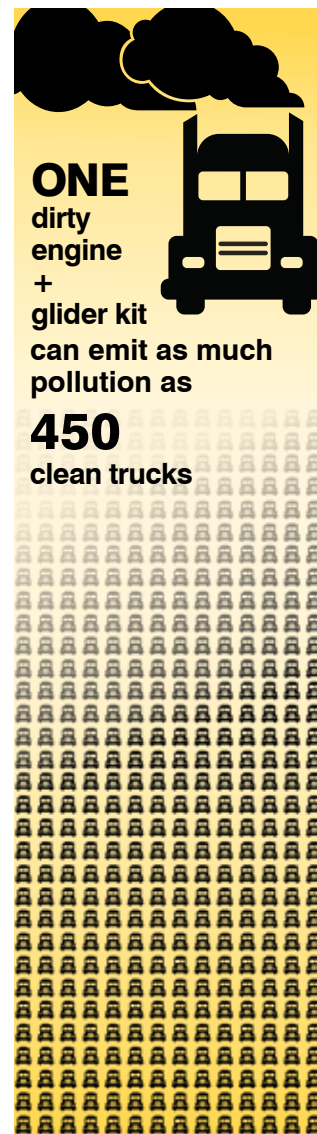
A dirty deal for trucks

It’s a pollution loophole big enough to drive an old truck through—and it smells just as rotten. An anticipated EPA rule change will exempt dirty used engines placed into new truck bodies—known as glider vehicles—from modern freight truck emissions standards. EPA administrator Scott Pruitt proposed the loophole shortly after meeting with executives from the leading glider manufacturer, Fitzgerald Glider Kits. The company also hosted President Trump during his election campaign.

EDF is fighting the proposal alongside health advocates and major freight industry representatives. A statement from Volvo Group said the change would “make a mockery of the massive investments we’ve made [in] clean diesel technology.” More than 50,200 EDF members also voiced their opposition.

In 2016, EPA estimated 10,000 glider trucks would lead to as many as 1,600 premature deaths in the U.S. from asthma and lung disease.

“EPA is favoring private interests over public health,” says EDF attorney Alice Henderson. “But we’re fighting every step of the way.”



EDF members stand up for vulnerable species!



HELEN RICHARDSON/THE DENVER POST

Our members submitted **57,403** comments opposing proposed weakening of sage grouse protections.

Is Interior Secretary Ryan Zinke listening?



China steps up on climate

By Rod Griffin

While the Trump administration rolls back emission controls, other top emitters, led by China, are moving quickly to fight climate change by lessening their dependence on coal and boosting renewables.

CHINA WAS ONCE CONSIDERED A reluctant participant in the battle against climate change.

How times have changed.

Since signing the Paris Climate Agreement two years ago, Beijing has accelerated its investments in cost-effective renewable energy and reduced its reliance on fossil fuels. China is on track to meet its Paris commitment to peak its emissions by 2030, if not sooner. It's the United States that is now the laggard.

In December, the Chinese government affirmed its climate leadership when it announced the launch of an ambitious program to stabilize and eventually reduce carbon emissions, a program that will become the world's largest emissions trading system (ETS).

China's national ETS will initially cover the power sector, including 3.5 billion metric tons of carbon emissions from 1,700 stationary sources. That represents roughly 39% of China's total emissions.

Gradually, the national ETS will scale up to include other industrial sectors such as cement and aluminum, and cover 7,000 companies.

Why is China stepping up? One reason is national self-interest. China burns more than half the world's coal each year, releasing hazardous conventional air pollutants and greenhouse gases. Outdoor air pollution contributes to an estimated 1.6 million deaths in China every year, according to researchers at UC-Berkeley. The growing middle class is demanding that the government improve air quality.

The launch of the ETS sends a clear signal to leaders across the globe that China remains committed to addressing climate change. Unlike the Trump administration, Chinese leaders see low-carbon energy as an opportunity to drive growth and lift millions of citizens out of poverty.

"When the world's major economies put an effective price on carbon emissions, we'll see everyone rushing to

reduce carbon," says Dr. Nathaniel Keohane, EDF's vice president for Global Climate. "China has taken an important step in that direction." EDF has worked in China for 27 years, helping build the capacity for an undertaking of this magnitude. The ETS is being overseen by China's environment ministry, including some 43,000 environmental enforcement officers EDF helped train through a program we established with leading universities.

One key to developing a robust carbon market is accountability. We helped convince the National Development and Reform Commission of the importance of a national emissions registry, the primary tool for tracking emissions. The government subsequently selected our ally, the Hubei Emission Exchange, to lead the creation of the registry, which will draw on the pilot we helped develop.

China's push for clean energy is real. The country installed 54 gigawatts of solar capacity in 2017, more than any other country. China also accounts for about two-fifths of global sales of electric cars, more than twice the number sold in the United States. Across the economy, industries are investing in clean technology.

Belt and road initiative

A big part of China's economic ambition is focused on its Belt and Road Initiative (BRI), which is intended to spread influence abroad, much like the Silk Road that once linked imperial China to the Roman Empire and to the medieval Europe of Marco Polo.

China aims to invest more than \$1 trillion in infrastructure projects in 68 other nations, which together with China are responsible for some 60% of global carbon emissions. The huge investment could lock in dirty fossil fuel infrastructure for decades—or it could present a tremendous opening for China to spur low-carbon growth in the developing world. EDF is pushing hard for the latter.

To help ensure that China doesn't shift

its emissions to its neighbors, EDF is working with companies and development banks to make climate-friendly investments. For example, EDF's Green Supply Chain initiative, a priority for China demonstrated by its inclusion in the 13th five-year plan, uses the purchasing power of the government and multinational corporations to improve energy efficiency and cut pollution.

Despite China's progress, there are big challenges ahead. Coal still represents more than 60% of the country's energy mix. After three years of decline, carbon emissions rose in 2017. And while Beijing has canceled plans for more than 100 coal plants at home, it is still investing in coal plants abroad.

"Our goal is to help China stay on a

low-carbon path while at the same time growing its economy," says Dr. Zhang Jianyu, EDF China's managing director. "Tackling climate pollution is the environmental challenge of the century."



STOCK

Time to venerate the earth.

Standout nations in the climate battle

UNITED KINGDOM



MEXICO

Christina McCain
EDF Latin America
Director, Global
Climate



Baroness Bryony
Worthington
Executive Director,
Environmental
Defense Fund
Europe

INDIA



Richie Ahuja
EDF South Asia
Regional Director
for Climate

Tackling methane

"In December 2015, Mexico became the first developing country to submit a climate pledge to the United Nations in advance of the Paris Climate Conference. The following year, President Peña Nieto stood with Canada and the United States to formally pledge to cut up to 45% of methane emissions across the oil and gas industry.

"Now, with EDF's support, Mexico is laying the groundwork for launching Latin America's first national emissions trading system by 2021. EDF is working as a technical partner with the government and Mexican Stock Exchange to implement a national trading simulation involving 90 businesses. The project will help inform the development of the country's emerging carbon market."

Winds of change

"Coal has fueled Great Britain since before the Industrial Revolution. But times are changing. Coal now accounts for just 7% of electricity generation annually, and last April the country experienced its first completely coal-free day. The green surge was more than a blip. The UK is reducing greenhouse gas emissions the fastest among OECD countries, and has pledged to shut down all remaining coal plants by 2025.

"What's the UK's secret? A switch to gas followed by a more recent push into renewables, predominantly wind. Renewable energy now makes up more than one-quarter of all UK electricity generation. EDF Europe recently teamed up with the UK's National Grid, making it possible to forecast carbon emissions in real time."

Clean development

"Motivated by choking air pollution and serious climate change impacts—years of drought and extreme rainfall—the world's third largest emitter of greenhouse gases has committed to cut pollution. The government cancelled four mega coal projects last year, and is expected to obtain 40% of its electricity from non-fossil-fuel sources by 2022, eight years ahead of schedule.

"Developing India's vast rural sector is central to its climate strategy. EDF has been deeply involved, working with local partners to provide nearly 300,000 households with low-carbon economic development solutions, including clean biogas cookstoves and training in profitable climate-smart agriculture that uses less fertilizer, less energy and less water."

Is Scott Pruitt putting industry profits over children's health?

By Charlie Miller



By refusing to properly implement a bipartisan chemical safety law, Trump's EPA is failing to protect Americans from toxic chemicals. With help from EDF, victims of chemical contamination are fighting back.

IN APRIL 2017, TRAGEDY STRUCK THE Hartley family of Ashland City, TN. Kevin Hartley was working at an apartment complex in nearby Nashville, using a chemical stripper to remove paint from an old bathtub.

Hartley was taking common-sense precautions. He was wearing gloves and using a respirator. He had an exhaust fan in the room, and he had even taken a training course on how to use paint strippers safely. But none of that mattered. Hartley's brother Michael found him on the floor of the bathroom, alive but in cardiac arrest. Michael applied CPR while waiting for paramedics to arrive. Then he called their mother and said, "I'm sorry mom. I did everything that I could, and I couldn't save him." Kevin Hartley died the following day in a Nashville hospital. He was 21 years old.

The deadly chemical in the paint stripper was methylene chloride, and paint strippers containing the chemical have killed dozens of people. These products sit on the shelves of almost every hardware store in America, even though they have been restricted in Europe and safer alternatives are available. In 2016, the Environmental Protection Agency (EPA) under then-President Obama proposed banning paint strippers containing methylene chloride, using authority granted by a new bipartisan chemical safety law called the Lautenberg Act. But under President Trump, that plan hit a brick wall. EPA Administrator Scott Pruitt put the proposed ban on a back burner, and today it sits in regulatory limbo.

This wasn't what EDF biochemist Dr. Richard Denison had in mind after the passage of the new chemical reform law in 2016—a big victory. The law is supposed to ensure, for the first time, the safety of chemicals used in everything from household cleaners to paint to stain-resistant coatings on sofas—chemicals that can have serious health effects and have been linked to learning disabilities, cancer and even death. The bill amended a 1976 law so deeply flawed that regulators could not even ban asbestos, a notorious and deadly carcinogen.

Undermining public safety

Denison had labored for years to change the law and was elated when the Lautenberg Act passed the House by a vote of 403-12, and the Senate by a voice vote.

"We had great hopes," Denison says. "Decades of work had finally paid off." The law promised a new era in which the many thousands of chemicals on the market today—the vast majority of which have never been reviewed by EPA—would finally be evaluated for safety. And the law also requires that the hundreds of new chemicals introduced every year also undergo rigorous safety reviews—something the earlier law failed to do.

That was then. The law is sound, but Pruitt is busy undermining its implementation, with the enthusiastic support of much of the chemical industry. Rules are being weakened or abandoned, and Pruitt has installed key appointees drawn from the chemical industry.

EDF is fighting back. One of our biggest battles of the past year came over Dr. Michael Dourson, an industry hired gun who was nominated to oversee EPA's chemical safety office. A toxicologist often retained as a consultant by the chemical industry, Dourson has a long record

of downplaying chemical risks.

"He's not a person you want as EPA's top regulator of toxic chemicals and pesticides," says Dr. Sarah Vogel, EDF vice president for Health. "He is well known in the business as the go-to guy to get your chemical blessed."

In the case of methylene chloride, Dourson published a research paper in an obscure industry journal that low-balled the risks and called for EPA's safety standard on the chemical to be significantly loosened. The client who paid for his research? The chemical industry's lead lobbying group, the American Chemistry Council.

Another case involved Dourson's work for paint manufacturer PPG Industries, which uses 1,4-dioxane, an industrial solvent linked to liver cancer, in some of its products. Dourson proposed setting a safety level in drinking water that's 1,000 times higher than the level set by EPA. The outcome of Dourson's research is no surprise. PPG Industries paid for it.

EDF joins the fight

Denison and his team looked into Dourson's record, and the more they learned, the more alarmed they became. In nearly every dispute, Dourson came



Hopeful times: EDF's Richard Denison was thanked in 2016 by then-President Obama for his leadership on the bipartisan chemical safety bill. The bill is now under threat.

FETE SOUZA

down on the side of industry.

EDF launched an aggressive campaign to block Dourson's nomination. We lobbied members of Congress and contacted reporters. Our affiliate Moms Clean Air Force jumped into action, as its members deluged their elected officials with their concerns.

We also worked closely with key senators, bringing people like Kevin Hartley's mother, Wendy, to their Washington offices to lobby against Dourson. Indiana's senators were lobbied by Kari Rhinehart, a 41-year-old emergency room nurse and Indiana resident. Rhinehart's daughter Emma had died of brain cancer in 2014, possibly caused by drinking water contaminated with trichloroethylene (TCE), a known human carcinogen. Indiana Sen. Joe Donnelly (D), who hadn't yet announced a position on Dourson, was deeply moved by her story and ultimately

opposed the nomination.

The tipping point came when North Carolina's Republican Senators Thom Tillis and Richard Burr turned against Dourson. Chemical contamination of drinking water is a critical issue in North Carolina. The Cape Fear River, the source of drinking water for the city of Wilmington, has been contaminated with GenX, a chemical used in the manufacture of Teflon. Scientists are unsure of the health effects of this exposure, but studies have shown that a chemical cousin called PFOA can affect fetal development, interfere with the immune system and increase cancer risks.

Our Raleigh office persuaded influential Republican and Democratic figures in the state to oppose Dourson. The decision by Senators Tillis and Burr to reject him finally sank the nomination.

EDF also had a hand in stopping

“The chemical industry has acted in bad faith.”

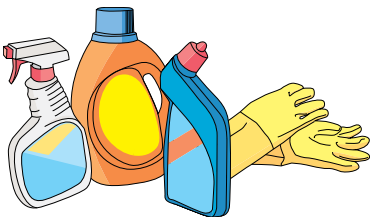
—EDF's Richard Denison

Kathleen Hartnett White, the nominee to head the President's Council on Environmental Quality (CEQ). The head of CEQ serves as the White House's environmental advisor, but Hartnett White is a climate denier and not even a scientist. In fact, she has called CO₂ the “gas of life” and said there's nothing harmful about it. Moms Clean Air Force volunteers lobbied key senators, and EDF alerted newspapers and broadcast media. In the end, her nomination, like Dourson's, was withdrawn after a public outcry.

The Trump administration's attack on public health goes well beyond the

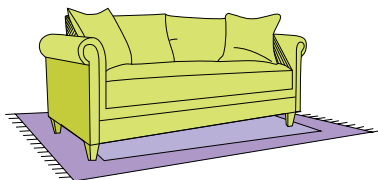
💡 How to reduce your exposure to toxic chemicals

Because we can't always rely on Washington to protect public health, here are ways you can limit your everyday encounters with harmful chemicals:



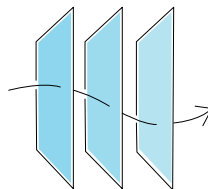
HOUSEHOLD CLEANERS

Try using vinegar, lemon juice and baking soda to clean and disinfect surfaces. Find out how on the DetoxMe app.



CARPET AND FURNITURE

- Avoid buying carpeting and furniture treated with flame retardant chemicals, antimicrobials or stain-resistant coatings.
- Look for the new flame retardant free label, or contact the manufacturer directly to verify if the item was treated with flame retardants.



INDOOR AIR QUALITY

- Toxic chemicals can be found in dust and enter the body when we inhale.
- Vacuum frequently and use a HEPA air filter to reduce indoor air contaminants.



PERSONAL CARE ITEMS

- Look for “fragrance free,” “phthalate free” and “paraben free” labels on your lotion, shampoo, soap and other personal care products.
- Avoid using personal care items past their expiration date as harmful bacteria and mold can grow over time.



HOME IMPROVEMENT PRODUCTS

- Use low- or no-VOC paints, coatings and flooring.
- Avoid paint and coating strippers containing methylene chloride.



GET SMART

- When buying cleaning products off the shelf, look for the EPA's Safer Choice label.
- Download the Silent Spring Institute's free DetoxMe app for more information on thousands of consumer products.



JULIE DERMANSEK

After a toxic chemical claimed her son's life, Wendy Hartley took her story to Congress.

Dourson nomination. After the Lautenberg Act became law, the first order of business was to write rules to implement it. The proposed rules drafted under President Obama were, in EDF's view, fair and faithful to the law.

But the rule-making process went off the rails last April, when industry toxicologist Dr. Nancy Beck came to EPA, appointed to a key political position. Beck had spent years inside the chemical industry shaping its agenda. One environmentalist dubbed her "the scariest Trump appointee you've never heard of." Within five weeks of arriving at the agency, Beck rewrote the rules, overruling EPA staff. The final rules now mirror a chemical industry wish list. They also make it much harder for EPA to conclude that a chemical is dangerous.

In response to the administration's subversion of the law, EDF and our allies have filed several lawsuits. Under the revised rules, EPA plans to ignore even known sources of dangerous chemical exposure, including the ongoing use and disposal of chemicals no longer made in the United States. PBDEs, for example, are a group of flame retardants no longer made in the U.S. But people are still being exposed to these chemicals because they remain in older furniture and some new, imported furniture. Under the rules rewritten by Beck, EPA will ignore these exposures, even though these chemicals are linked to an array of health problems, including learning impairment. EDF's suit challenges EPA's interpretation of the law that opened this loophole.

Taking Pruitt to court

EDF is also prepared, if necessary, to take EPA to court over how it reviews the hundreds of new chemicals that enter the market every year.

The Lautenberg Act made major improvements to this process. But Pruitt issued a new set of operating principles that EDF regards as illegal. Instead of reviewing new chemicals comprehensively, for example, which would include reasonably foreseeable future uses, the revised rules would have EPA evaluate risks only for a narrow set of uses identified by the manufacturer. This is troubling because once a new chemical is on the market, it often gets used in new ways, some of which may involve higher levels of exposure for workers and consumers. TCE, for example, was originally used only as an anesthetic. Now it's used in dry cleaning and as an industrial degreaser, among other applications.

One weapon in EDF's arsenal is an influential blog started by Denison in 2008 (blogs.edf.org/health). A must-read for industry, the public health community, journalists, and staff inside EPA and on Capitol Hill, the blog has rallied supporters of the Lautenberg Act while shining a light on Pruitt's sabotage and industry complicity.

And we will continue to draw on the valor of people like Wendy Hartley.

"People are dying," says Hartley. "If telling Kevin's story will get just one person to re-think a purchase or one lawmaker to voice their concerns, then I'm here to tell it."



10 weeks, six wins for the environment

Dec. 13: Dangerous chemical safety nominee out

A hired gun for the chemical industry, Michael Dourson was picked to run EPA's chemical safety office. EDF and our allies push back, and the nomination is withdrawn.

Jan. 8: Regulators reject a coal bailout

Energy Secretary Rick Perry asked the Federal Energy Regulatory Commission (FERC), to prop up uneconomical coal plants at the expense of their customers. FERC commissioners unanimously reject the proposal.

Jan. 9: A win for endangered species

In January, the Supreme Court upholds a ruling supporting protections for the Utah prairie dog, which is listed as threatened under the Endangered Species Act.

Jan. 29: Bristol Bay mining reversal

In a surprise reversal, EPA announces it is tabling a highly controversial Alaska mine project, Pebble Mine. EPA says the risk to fisheries is too great—something mine opponents have argued all along.

Feb. 4: Climate denier rejected for White House job

EDF helps defeat the nominee to head the Council on Environmental Quality, the president's environmental advisor. Kathleen Hartnett White embraced fringe views and once called renewable energy "parasitic."

Feb. 22: Judge backs EDF on pollution

In response to an EDF legal challenge, a federal court blocks Interior Secretary Ryan Zinke's bid to delay limits on natural gas waste. The judge calls Zinke's delay plans "untethered to evidence."



The return of ‘drill, baby, drill’

By Rod Griffin

The Trump administration’s obsession with fossil fuels, including an expansion of offshore drilling, poses grave risks to the environment and public health. EDF is mobilizing to protect America’s coasts.

IMAGINE MASSIVE OIL RIGS WITHIN sight of North Carolina’s Outer Banks or New Jersey’s Cape May. Or new wells being drilled off Big Sur, which has been off limits to new oil exploration since the disastrous 1969 Santa Barbara oil spill left tar balls on California beaches.

That nightmare could be a reality if the Trump administration has its way.

In January, Interior Secretary Ryan Zinke announced plans to allow new offshore oil and gas drilling in nearly all U.S. coastal waters, giving energy companies access to leases off California and the Eastern Seaboard. Congress also opened the Arctic National Wildlife Refuge, known as America’s Serengeti, to oil and gas drilling as part of the tax overhaul.

Onshore, the administration is pursuing similar attempts to turn over federal

lands and resources to industry, notably by shrinking the size of iconic national monuments like Bears Ears in Utah.

If those ill-conceived initiatives weren’t bad enough, they follow a rollback of safety rules that were put in place after the 2010 Deepwater Horizon blowout in the Gulf of Mexico, which killed 11 people and caused one of the nation’s worst environmental catastrophes. EDF played a key advisory role in developing those rules to prevent a repeat of such a disaster.

“The administration’s blatant disregard for the inherent risks of offshore drilling is mind-numbing,” says Elgie Holstein, EDF’s senior director of strategic planning. “The drilling plan represents a radical departure from the past several decades of bipartisan consensus on the approach to developing oil and

gas in federal waters, which has focused almost exclusively on the western and central Gulf of Mexico.”

Interior Secretary Zinke promised last year to “listen to state and local stakeholders” in reviewing offshore oil and gas. Instead, the only stakeholders this administration listened to before taking action were industry lobbyists.

The governors of New Jersey, New York, Delaware, Maryland, Virginia, North Carolina, South Carolina, California, Oregon and Washington have all opposed offshore drilling plans. Opponents also include more than 150 coastal municipalities and an alliance of more than 41,000 businesses and 500,000 fishing families.

Just five days after releasing the plan, Interior Secretary Zinke announced on Twitter he was removing Florida from offshore drilling consideration, citing the state’s reliance on tourism. That raised the question of whether exempting Florida was a political favor to Gov. Rick Scott, a Trump loyalist who’s a potential GOP candidate for U.S. Senate.

ISTOCK



Under Trump's plan, 90% of U.S. offshore waters would be open to drilling, threatening an array of marine life including the orca.

Within hours of Zinke's tweet, governors of other coastal states began demanding their own drilling exemptions. "Florida's exemption has all the appearances of a cynical political manipulation that has provoked nearly a dozen coastal states, both red and blue, to protest," says Holstein.

The same justification for exemption could be made for the other coastal states. In California, for example, the ocean economy, which includes fishing and tourism, employed over 500,000 people and contributed nearly \$40 billion to the state gross domestic product in 2014 (nearly 50% more than that of Florida).

The decision to exempt Florida, without holding legally required public hearings or providing a scientific justification, may complicate the broader drilling plan. Several states, including California, have filed lawsuits.

It was just eight years ago, on April 20, 2010, that the Deepwater Horizon blowout spilled more than 200 million gallons of oil into the Gulf of Mexico, killing thousands of dolphins, sea turtles and other large marine animals, and an estimated one million seabirds. The disaster also devastated businesses and exposed hundreds of cleanup workers and other Gulf residents to toxic chemicals.

Today, the spill's impacts linger. Barataria Bay lost key bird nesting islands, and federal government studies

indicate that dolphins in the northern Gulf are sick and dying at a higher rate than normal and still show signs of oil poisoning.

"Just as worrying are the less obvious but lingering impacts on smaller ocean life, including zooplankton and fish, and on corals in the deep sea, which are harder to measure," says EDF chief Oceans scientist Dr. Doug Rader.

It was against that backdrop that the Trump administration eased drilling safety regulations put in place after the Deepwater Horizon blowout. Those rules, which industry opposed, required more frequent and independent safety inspections of oil rig equipment, particularly blowout preventers, the sort that failed in the BP spill.

"The oil industry is going into increasingly hostile environments like the Arctic and in deep waters of the Gulf of Mexico, posing all kinds of new challenges," says Holstein, who served on a task force advising the bipartisan presidential commission established after the BP disaster. Due to colder water temperatures and extreme conditions, the vulnerability of the Arctic, upon which a huge array of wildlife depend, may be even greater than the Gulf.

The oil industry claims that drilling is safer than ever today, but risks remain. In October, an underwater pipe burst 40 miles off Louisiana, spilling 672,000 gallons of crude oil, the largest spill since Deepwater Horizon.

"Accidents happen," says Holstein. "That's why we need strong rules and consistent oversight."

"We know there are powerful economic forces pushing the Trump administration to open up new areas for energy development," he adds, "but we'll fight them every step of the way."

“This is all being done in pursuit of a vague notion of energy dominance that this administration has invented to somehow make America great again.”

—EDF's Elgie Holstein

Protect our future

Did you know you can protect the environment with a gift from your will or estate?

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Contact our Planned Giving team toll-free at 1-877-677-7397 or legacy@edf.org.

www.edf.org/legacy



SHUTTERSTOCK

ALAMY

Groundswell of defense

The Clean Power Plan (CPP) is this nation's most significant weapon in the battle against climate change. The mainstay of our historic Paris Climate Agreement commitment, it places strict limits on power plant pollution and can save 4,500 lives a year. Now EPA boss Scott Pruitt wants it repealed. EDF and allies are countering him every step of the way, growing in strength and numbers with every action.



Trump and Pruitt

President Trump announces U.S. withdrawal from the Paris Climate Agreement.

**JUN
2017**

Pruitt announces his intention to repeal CPP.

**OCT
2017**

EPA initially commits to only a single public hearing on the repeal.

**NOV
2017**

Pruitt and Trump repeatedly claim the Paris Agreement and CPP are unpopular and bad for business.

**JAN
2018**

EDF's Freedom of Information Act request reveals Pruitt's personal hand in concealing references to CPP on EPA's website.

**JAN
2018**

Pruitt maintains pollution is better regulated at local level.

**FEB
2018**

EPA makes the latest in a series of attempts to indefinitely suspend CPP litigation.

**MAR
2018**

Pruitt vows to repeal and replace CPP by the end of 2018.

**WHAT'S
NEXT?**

EDF and Allies

EDF president Fred Krupp declares this "a galvanizing moment." A coalition of CPP supporters, re-activated by Trump's energy policies, is engaged and begins to swell.

More than 151,000 EDF members contact EPA demanding a strong CPP and accusing Pruitt of "playing politics with the future of our planet."

At the hearing, CPP supporters outnumber Pruitt's, 4:1. EDF and allies demand more hearings. EPA relents, calling three more and extending the consultation period by three months.

An EDF report finds the renewable energy sector is creating jobs 12 times faster than the rest of the economy. More than 2,400 businesses, cities, states and universities pledge to support the Paris Climate Agreement.

14 states and five cities demand Pruitt's disqualification from the repeal process. EDF and partners declare the process "irredeemably tainted." 50,115 members call for Pruitt's dismissal.

233 mayors, representing 51 million people in 45 states, urge Pruitt to retain CPP.

The DC Circuit again denies the request, following comments from EDF and others.

In March, EDF and partners sue to uncover how an anti-climate think tank swayed EPA decisions. We will continue to fight Pruitt both at EPA and in the courts. As EDF's Vickie Patton says: "We have the law, and the public, on our side."

>>> TAKE ACTION >>> Sign our Sack Pruitt petition at edf.org/NoPruitt.



OFFSET

Improving the science of stream restoration is critical in the Southeast and other regions where rapid development threatens water quality and wildlife habitat. North Carolina, for example, is blessed with 38,205 miles of freshwater rivers and streams, but since 2000, more than 16,000 permits have been issued for activities that damage streams. It's no surprise then, that the state now has 52 aquatic species threatened with extinction, including the Eastern Hellbender, America's largest aquatic salamander.

In a nationwide survey, EPA found rivers plagued by a variety of chemical and bacterial threats, excess sedimentation and habitat loss. The

A better way to protect rivers and streams

THERE'S AN OLD SAYING IN riverside towns: "We all live downstream," suggesting that communities must unite to manage their shared resources. Yet America's rivers, which provide two-thirds of the nation's drinking water, too often have served as a convenient waste receptacle.

The good news is that our nation's rivers have gotten healthier in recent decades, thanks to the Clean Water Act. But 46% of America's waterways remain in poor biological condition according to EPA (an additional 26% are in fair condition) and threats are increasing.

In response, a North Carolina-based EDF team developed a new science-based tool to better protect beloved waterways that are threatened by development, water pollution and climate change. To keep rivers clean, we must work upstream where the rivers begin. "It's more efficient," says Will McDow, EDF's director of habitat markets. "When streams are clean, rivers are clean."

The 1972 Clean Water Act requires states to monitor the safety of all waterways and remedy pollution. However, states vary widely in how they comply with the Act. "There is a serious lack of consistency in how we measure the quality of our waterways," says EDF's habitat

markets expert Paxton Ramsdell.

The problem is that until now there has been no accurate way to verify that a stream has been restored to health. Currently, the health of a waterway is measured simply by the number of linear feet of stream impacted or restored. "We need a more comprehensive approach to determine whether a stream is truly healthy," says McDow. "That way we can ensure that the millions of dollars spent on restoring streams and wetlands actually provide the promised benefits."

Improving the science

EDF scientists and partners have developed a stream quantification tool to measure a river's biological, physical and chemical functions. The tool includes measurements for more than 20 components of a stream's health, ranging from the fish species that are present to how many trees are growing along its banks.

This tool and EDF's vision for evaluating stream quality have garnered support in states such as Wyoming, Colorado, North Carolina and Tennessee.

most widespread danger is excess nutrients. Some 46% of the nation's stream length contains high levels of phosphorus, while 41% has excess nitrogen. Nutrient pollution causes dead zones in virtually every state.

Biologists are enthusiastic that with the new EDF tool they'll be able to more accurately assess the health of vulnerable species such as Appalachian brook trout.

Says McDow: "We want to make the tool easy to use for everyone from government officials to citizen scientists, so that as our population and communities grow, America's streams and rivers remain healthy for generations to come."

Peter Klebnikov

>>> WHAT YOU CAN DO >>> Izaak Walton League's citizen science program empowers volunteers to monitor streams nationwide. Learn more at: bit.ly/2u2etUf



FRESHWATERS ILLUSTRATED BY DAVE HERASIMTSOUK

EDF's work is helping restore the habitat of the Appalachian brook trout and other vulnerable wildlife.



Long-time community leader Margaret Gordon: “It’s always a hard push to get justice.”

Change agent

EDF and Google Earth Outreach deployed sensor-equipped Street View cars to detect air pollution block-by-block in West Oakland. The project yielded a trove of data that may transform how cities address local pollution.

MARGARET GORDON KNEW something was wrong after she moved with her young son to West Oakland, CA, in 1992. Their asthma was flaring up, and at her son’s school where she worked she spotted a large basket filled with inhalers marked with each child’s name.

“I had to know then why so many kids were sick,” says Gordon. At the time, Gordon was also a housekeeper for the head of a local environmental group. Curious, she asked to borrow his magazines. “I thought environmentalism was about saving whales,” she says. “I had no idea it was also about human health.”

It became clear to Gordon that her family’s illnesses were linked to pollution from diesel exhaust and other industrial sources. Her new home was located a half a mile from the Port of Oakland and near a busy highway that carries close to 10,000 trucks a day. Gordon learned that, like many low-income communities of color, West Oakland is disproportionately burdened with air pollution. Here, levels of diesel pollution are almost three times the average in all the Bay area,

contributing to an elevated risk of cancer. And West Oakland has twice the number of asthma emergency room visits than the rest of Alameda County.

“Ms. Margaret,” as Gordon is known, decided to fight for cleaner air in her community. She led a successful effort to reroute diesel trucks so they avoid residential streets, became the city’s first port commissioner of color and cofounded the West Oakland Environmental Indicators Project (WOEIP), a community-based environmental justice organization.

EDF turned to WOEIP for its deep knowledge on local issues in 2015, when we began mapping air pollution with Google Earth Outreach. We arranged for Aclima sensor-equipped Street View cars to traverse Oakland to map black carbon, nitric oxide and nitrogen dioxide to produce a vivid picture of air pollution hot spots block by block. In some areas, air pollution levels were eight times higher than in others. What’s

more, scientists were able to connect pollution along a certain block to an adjacent industrial facility—just the kind of detailed information that can help communities deal effectively with pollution.

Gordon’s group then developed a community action plan to turn the trove of data into a powerful advocacy tool. The data are being used by the group to create a model plan for reducing pollution exposure in West Oakland under the state’s new local air pollution law, AB 617.

“Such data can only be transformative when put in the hands of community leaders,” says Gabriela Zayas del Rio, EDF’s research analyst and community liaison. It’s an example of what we call Fourth Wave environmentalism: innovation that helps people take effective action. Together, we’re now helping shape the Port and City of Oakland’s truck management plan to make sure it alleviates congestion and traffic through residential streets as the port expands.

“EDF’s technical expertise and collaboration have been very helpful,” says Gordon.

Through this partnership, we’ve learned the importance of community agreements in planning a project. We aim to continue similar projects in other U.S. communities. Already, Street View cars are driving through Houston neighborhoods plagued by air pollution. Soon, we hope new low-cost sensors will be installed on private and public fleets, providing a road map for cities to scale up air pollution monitoring globally.

Ms. Margaret is proud that her community is laying the groundwork. “My hope is officials will use this information to finally develop policies that will truly reduce people’s exposure to dangerous air pollution,” she says.

Leslie Valentine



Sensor power: 2.7 million data points show where people are at greatest risk of breathing unhealthy air.

On climate change, business awakens

By Frank Convery, EDF Chief Economist

In *A Sand County Almanac* (1948) the conservationist Aldo Leopold wrote that it was time to “enlarge the boundaries of the community to include soils, waters, plants and animals.”

In the 70 years since he made this call, most governments have set rules that reflect the community interest in conservation. But in the U.S. today, it is private business, not the backsliding federal government, that’s taking the lead in the fight against climate change. Increasingly, business is defining its “community” to include the environment. For example, in just the past year:

- Credit rater Moody’s implemented a new policy to require bondholders to account for the potential impacts of climate change, or risk downgrades.
- Larry Fink of BlackRock (the world’s largest asset manager), wrote to CEOs: “Your company’s strategy must understand the ways that broad, structural trends—from slow wage growth to rising automation to climate change—affect your potential for growth.”

EDF has a long history of working with companies who want to take on environmental responsibilities beyond those that are required by law. We applaud those who choose to lead when politicians do not.



Aldo Leopold called on us to “enlarge the boundaries of the community.”

This regular column honors the memory of Robert W. Wilson, a longtime EDF supporter and champion of harnessing market forces to drive environmental progress. See edf.org/wilson

LIBRARY OF CONGRESS



Since 2007, more than 530 coal plants have been shut down.

EDF helps kill a proposal to bail out dirty coal plants

IN JANUARY, THE FEDERAL ENERGY Regulatory Commission (FERC) delivered a huge win for the environment and public health, voting unanimously to reject a proposal from Energy Secretary Rick Perry to prop-up aging and uneconomic coal and nuclear plants. The proposal would have guaranteed these uncompetitive plants set profits every year, at a cost of billions of dollars to American homes and businesses.

The FERC decision marks the latest in a string of losses for the coal industry, which, with its devastating effects on climate and the public health, is on the wane. Coal now supplies 32% of our electricity, down from 47% a decade ago. From 2007 to 2016, 531 coal plants were retired. Today, some 51,000 Americans work in coal mining, according to the Bureau of Labor Statistics, compared to some 362,000 in the solar and wind energy sectors, according to the U.S. Department of Energy. As coal jobs disappear, our nation needs to create programs to support former miners as they transition to new lines of work.

The main reason for coal’s decline is that coal is too expensive to compete against natural gas or, increasingly, wind and solar. But the Trump administration is bending over backwards to support coal power. In February, for example, President Trump signed a bill—reversing

an Obama-era regulation—that will make it easier for coal companies to dump mining debris into streams.

“Secretary Perry’s first year at the Department of Energy has seen one effort after another to prop up coal,” says Jim Marston, EDF’s vice president, Clean Energy.

EDF helped lead a large coalition in the fight against the Perry proposal—a group that included environmental organizations, state Attorneys General, energy companies and large corporations.

“EDF engaged in vigorous opposition,” Michael Panfil, EDF’s Senior Attorney, Director of Federal Energy Policy, says. “Our clean energy, legal and regulatory, and natural gas teams all worked together nonstop to file several hundreds of pages of evidence and analysis to FERC illuminating the DOE proposal’s numerous deficiencies.”

At the same time, the EDF communications team helped galvanize commentators to oppose the administration. So many comments were submitted, in fact, that the FERC server crashed.

All that work paid off when FERC (four of whose five commissioners were appointed by President Trump) rejected the DOE proposal. The unanimous vote, said *The New York Times*, dealt “a major blow to the Trump administration’s efforts to revive America’s declining coal industry.”

The waste land

Here's a startling fact: according to the UN Food and Agriculture Organization, about one third of food produced globally goes to waste. That's one in three loaves of bread. And a lot of wasted energy. Whether it's buying more food than we need or forgetting what's in the freezer, we could all do a little better. Here are some ideas on how.

✓ Shop smarter

Create a weekly dining plan and shopping list to help avoid over-purchasing. Choose ugly—an odd shaped apple doesn't affect flavor but shoppers still reject it, and it ends up going to waste. Only take advantage of deals and bulk offerings if you're sure you'll use the extra food: It's not a bargain if it ends up in the trash.

✓ Store better

Did you know keeping flour in the freezer extends its life? Or that a slice of brown bread can re-soften hardened sugar? Or that shaking water from fresh produce slows degradation? Find tips on storing, preserving, freezing and much more at savethefood.com. Oh, and don't be ruled by "best before" dates. If it smells good, feels good and looks good, chances are it's still good.

80% of all U.S. fresh water is consumed getting food from farm to fork.

✓ Cook with care

Plan portions with the help of the website lovefoodhatewaste.com so you'll never cook too much. The online cookbook *Amazing Waste* by science students from University of Wisconsin-Madison contains a bounty of recipes for using up scraps. Also, try smaller plates: a Danish survey found reducing plate size by 9% cuts food waste by over 25%. At the week's end, make a stew or a soup from whatever's left in the refrigerator and freeze portions for next week's lunches.

Please exercise your own discretion when deciding what's good to eat. Note: EDF is not responsible for the content of external sites.

If food waste were a country it would be the 3rd largest emitter of greenhouse gases.

✓ Think before you toss

Keep food waste out of landfill. Maybe your municipality offers composting. If not, invest in home composting bin, or even a wormery, and watch your scraps turn to rich, garden- (or plant pot-)ready compost in weeks. Coffee grounds, eggshells and citrus peel can go straight onto your garden providing mulch, aerating soil and keeping slugs at bay. Check out the incomparable edenproject.com for plenty more composting know-how.

U.S. households waste 63 million tons of food, worth \$165 billion dollars, each year.

✓ There's an app for that

Try Handpick which generates recipe suggestions from whatever's left over in the refrigerator. Hungry Harvest and Imperfect both home deliver produce deemed subpar by the supermarkets while goMkt alerts buyers to flash sales of surplus food by local shops and restaurants.

✓ Support EDF

As an EDF member, you're already helping! Our detailed data analysis of food waste is driving work to help limit waste on farms and change consumer behavior in stores. Details on how to donate in support of EDF's critical work can be found on page 3.

What are your favorite food waste prevention tips? Let us know at editor@edf.org

MEMBER ACTION

Make way for kid power

These youngsters fight for the environment and their future.

In 2011, a freight train derailed in Paulsboro, NJ, spilling 23,000 gallons of the toxic carcinogen vinyl chloride into the air. In the days that followed, four-year-old Logan Sheehan began to get headaches and bouts of vomiting, and his little brother Liam got nose-bleeds that would plague him for months. The boys' mom, Trisha, described the pain like "a tight band around my head," and a persistent burning in her throat. After that, everything changed.

"That was when my family got interested in the environment," says Logan, now 11.

Interested is putting it mildly. Logan has since become a familiar face on Capitol Hill. In early 2018, he visited every senator's office, asking them to oppose the nomination of Kathleen Hartnett White to lead the Council on Environmental Quality. In February, Harnett White withdrew.

"That's good," Logan said with a smile when he heard.



Give kids a good cause and they'll move mountains.

Logan is one of countless kids taking action for the environment. From political lobbying to community action, these young warriors are proving the future is in good hands.

Take Jessie Mason from Palo Alto, CA. For her eighth birthday, Jessie asked for donations to EDF. Jessie loves animals—"my favorites are dolphins, whales, hedgehogs and dogs"—and wanted to help defend the natural world. Her request raised nearly \$500.

Meanwhile, 24 high school students from a low-income neighborhood in Queens, New York City, were inspired to raise money for EDF after preparing papers on global warming for their AP exams. Their teacher, Wendy Weiner, sent us their \$211 donation, along with a handwritten note stating sim-

ply: "I'm so proud."

The stories are too numerous to mention. They include the New York brothers who cancelled catalogs for their neighbors, saving 300 that season, more as the years roll by; the Long Island middle schoolers who founded an annual recycling event; and the Montana youngsters who lobbied representatives on air quality following wildfires.

As for Logan's family, the work continues. Trisha Sheehan is now national field manager of EDF-affiliate Moms Clean Air Force, a million-strong lobby group which testifies at hearings and engages representatives—all with kids in tow.

"Kids help representatives see the real world impacts of their decisions," Sheehan says.

A LETTER

DETTA



"An important publication"

Dear EDF,

Your winter issue, *Solutions*, is an important publication.

I found the piece titled "This is what climate change looked like in 2017" (Winter 2018) to be particularly compelling. How on earth can anyone claim that the climate is not changing? The truth is all too apparent.

With my best wishes and my thanks for your good work,

George P. Shultz

The Hon. George P. Shultz was U.S. Secretary of State under President Reagan, and has held four cabinet positions under two presidents. In 2010, Shultz helped EDF safeguard California's landmark climate and clean energy law (AB32). He is a distinguished fellow at the Hoover Institution at Stanford University.

Thank you, members!

39,941 of you demanded action to uphold our key methane protections.



FIVE TIPS FOR RAISING ENGAGED CHILDREN

Model effective activism

Your volunteering, door knocking and letter writing will become the blueprint for theirs.

Start local

Organising a litter pick or school-based food waste campaign shows them the power of strong communities.

Get outside!

Exposure to the natural world sets a basic foundation for your growing activist.

Show tangible results

A thank you note from a charity or a news story about an action they joined shows youngsters they are already influential.

Tap into existing interests

Passion breeds action. Animal enthusiasts can petition to defend the Endangered Species Act, swimming fans may wish to act for cleaner beaches.

What actions has your kid taken? Let us know at editor@edf.org.

“People from a planet without flowers would think we must be mad with joy the whole time to have such things about us.”

—Iris Murdoch, author

