

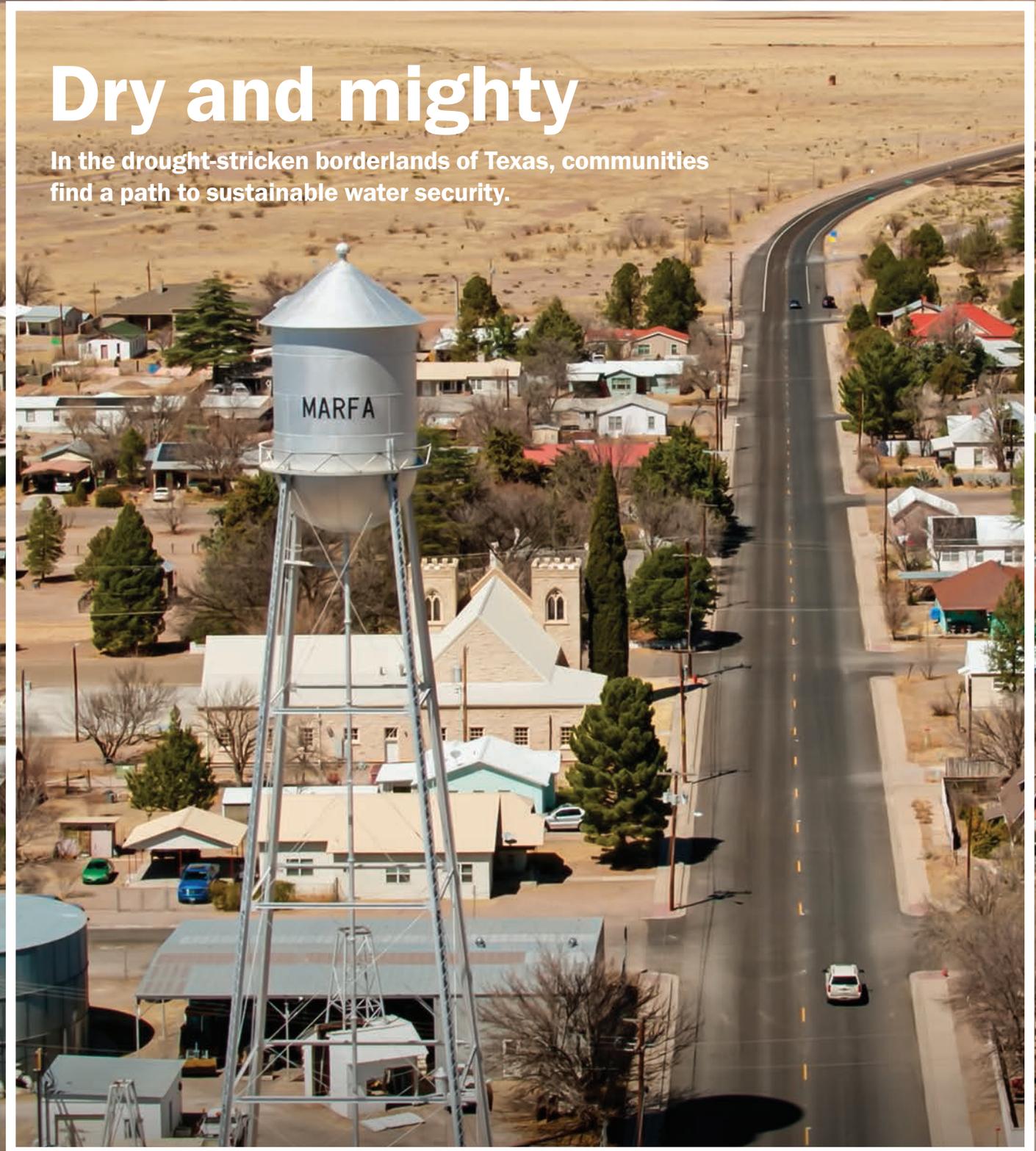
# SOLUTIONS



Vol. 54, No. 3 / Summer 2023

## Dry and mighty

In the drought-stricken borderlands of Texas, communities find a path to sustainable water security.



ALSO INSIDE: Electric vehicle jobs boom | A farm bill for the climate | Green summer reads



## A big boost for biodiversity

The world's ecosystems have lost an average of 69% of their wildlife in the past 50 years. To halt this dangerous decline, 192 countries have reached a historic agreement. EDF teams worked at the United Nations conference in Montreal to support a new Global Biodiversity Framework that includes commitments to conserve 30% of the Earth's land and ocean area, such as this mangrove forest in Indonesia, by 2030. Healthy natural systems protect habitats and fight climate change, boosting resilience for people, nature and the planet.

# Green cars, blue skies



“It’s a dream come true.” That’s what I said on *PBS NewsHour* this spring, after news broke that the U.S. Environmental Protection Agency (EPA) had proposed limits on tailpipe pollution that could reduce America’s climate pollution by nearly 10 billion tons.

The transportation sector is the nation’s largest source of planet-warming pollution, responsible for almost a third of U.S. emissions. And reducing that pollution isn’t just a win for the climate. It’s a win for your

health. Tailpipe pollution is linked to asthma, heart disease — even cancer.

That’s why EDF lawyers, scientists and advocates helped to make the EPA standards as robust as possible (*see p. 4*) — less tailpipe pollution helps all of us enjoy cleaner air and a safer climate, all while supporting the rise of green jobs. Speaking of jobs: A new EDF report found that the electric vehicle boom has led to more than 94,000 jobs in the U.S. since the Bipartisan Infrastructure Law passed in 2021, with many more to come (*see p. 6–7*).

But our work isn’t finished. Since the EPA’s new tailpipe pollution standards were announced, we have seen an uptick in efforts to discredit electric vehicles and the EPA’s actions. I won’t sugarcoat it. These attacks undermine the EPA’s ability to complete and defend the proposed standards, and imperil the necessary transition to clean vehicles. I encourage you to help us defend against these attacks by signing up for EDF’s action alerts at [EDF.org/action](https://www.edf.org/action).

I’m pleased to say that slashing tailpipe pollution isn’t the only big move the Biden administration is making to clean up our air. The EPA has also proposed an update to the Mercury and Air Toxics Standards (*see p. 13*). EDF fought to protect these standards under the previous administration and is working to ensure that they remain as strong as possible. And in May, the EPA announced new rules to combat climate pollution from power plants, the second-largest source of this pollution in the U.S.

In addition to advocating for policies that will prevent climate change’s worst effects, we’re supporting communities already impacted by a changing climate — including worsening drought. As you’ll read in the cover story (*see p. 8–11*), more than 2 million people in the U.S. live without reliable access to clean drinking water. In Texas, EDF and our partners are on the ground helping residents obtain well-drilling permits while coordinating projects to restore waterways, plant trees and otherwise get ready for the increasing effects of climate change in one of the hottest, driest parts of the country.

Like the resilient Texans you’ll meet in this issue, you too have the power to choose hope over despair and progress over stagnation. I said the same thing to a group of graduates at Williams College in Massachusetts recently when I invited them, at their commencement, to join us in this fight. (If you’d like to watch the full speech, you can find it at [edf.org/WC2023](https://www.edf.org/WC2023).)

Thank you for helping EDF fight for progress today and every day.

  
EDF President

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*On the cover: Marfa is one of several parched Texas towns where residents are working with EDF to unlock access to clean drinking water. Photo: iStock/Getty Images Plus*

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## SOLUTIONS

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# Stopping smog at the source

Nearly 103 million U.S. residents breathe air that flunks national standards for smog pollution. That's almost one in three people.

But starting this summer, there's some relief in sight: The EPA's recently finalized Good Neighbor Plan sets in motion new clean air protections that target nitrogen oxide (NO<sub>x</sub>) pollution from power plants and other industrial sources.

NO<sub>x</sub> is dangerous because it contributes to ground-level ozone – the main ingredient in smog. It damages people's lungs and is linked to asthma attacks and other serious lung and heart diseases. It's especially harmful to children's developing lungs, the elderly and people active outdoors.

Under the Clean Air Act, states are not supposed to permit significant amounts of air pollution to drift across state borders and contribute to unhealthy air quality in states downwind. But 23 states have failed to submit acceptable plans to the EPA for curbing cross-state air pollution. Now, the EPA is stepping in to enforce pollution cuts for these states so that downwind states don't suffer the consequences of poorly controlled smokestacks hundreds of miles away.

The EPA estimates that the plan will reduce ozone season NO<sub>x</sub> emissions from the power sector by 50% from 2021 levels within four years. In 2026, the rule is expected to prevent around 1,300 premature deaths, 7,000 new cases of asthma, more than 2,300 emergency room visits, and almost 1.3 million asthma attacks.

Certain states and industry opponents have challenged the rule in court. EDF has vigorously advocated for these protections and will continue to do so to ensure that the rule's vital protections are realized.



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## CLEAN CARS BREAKTHROUGH

What if there were many more choices for affordable electric cars? New rules proposed by the Environmental Protection Agency will help make that a reality.

Within the next 10 years, two-thirds of all new cars could be electric, thanks to new tailpipe pollution standards proposed this spring. The proposals could also drive the electrification of almost half of new commercial vehicles, and up to a third of new 18-wheelers.

The two proposed rules are part of a trio of momentous moves to tackle the 28% of all U.S. climate pollution that comes from transportation.

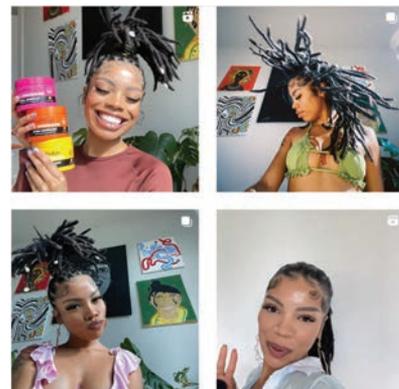
The EPA has also approved California's new truck standards which require manufacturers to sell an increasing number of zero-emission freight trucks and buses through 2035.

"These are the right policies at the right time," said Alice Henderson, EDF's director of transportation and clean air policy.

Trucks and buses represent about one-tenth of all U.S. vehicle traffic, but are responsible for more than half the sector's air pollution and more than a quarter of its climate pollution. Seven other states have already moved to adopt the California rule, meaning it will cover nearly a quarter of the market.

EDF helped make these announcements possible through extensive analytical work supporting strong pollution standards — work we shared with policymakers — as well as engagement with leading automakers to encourage their support.

"These new standards help turbocharge the crucial transition that's already underway," Henderson said.



THEREALCHOLEY2.0

## JUSTICE IS BEAUTIFUL

Beauty products sold to women of color often contain more toxic ingredients. To help address that problem, EDF partnered with nine Black and Latina beauty influencers, including @therealcholey2.0, above. They are asking their more than 1.3 million Instagram followers to urge companies to adopt EDF's Clean Beauty Justice Roadmap; it outlines steps retailers and manufacturers can take to get safer beauty products on shelves.

# Planting new hope

The \$1.4 trillion farm bill could be the biggest piece of climate legislation passed this year.

**Y**OU MAY NOT OWN A TRACTOR OR A single pair of overalls. And maybe the only thing you've had a hand in growing is a neglected, windowsill succulent. But if you think the farm bill has nothing to do with you, you'd be wrong.

"The farm bill is a massive omnibus authorization and spending bill that comes up every five years," says Ben Thomas, who directs EDF's agriculture policy work. "It sets all federal food, agriculture and nutrition support policy and touches almost every aspect of our lives."

It's also critical for climate reasons: Agriculture is responsible for around 10% of greenhouse gas emissions in the U.S. and ensuring that farmland is resilient to the impacts of climate change is vital to securing the future of our food supply.

As negotiations for the 2023 farm bill get underway this summer, EDF will be working hard to keep climate and conservation programs at the top of the agenda.

"The conservation programs in the bill help farmers improve soil health and water quality and make working lands more resilient," says Thomas. Successful advocacy will mean more money for those programs than ever before.

Through advocacy on Capitol Hill and among farming groups, EDF has been laying the groundwork for these negotiations for years. Last year, that work bore fruit when the Inflation Reduction Act allocated \$20 billion to support popular conservation programs funded through the farm bill. That's the largest-ever federal investment in reducing emissions from farmlands. There's also \$300 million to establish a new program to collect field-based data to track and assess the climate impact of these programs.

"The farm bill conservation programs are enormously popular," says Thomas. "But right now only about one in every three applicants gets funding. The IRA funds will almost double the money



USDA conservationists check on soil health on Eric Jennings' (left) farm in South Dakota.

available in these programs and, for the first time, require that the project being funded has a climate benefit."

The kinds of projects that could receive funding include: installing anaerobic digesters to capture planet-warming methane from manure; planting cover crops to protect soil and the carbon it stores; reducing fertilizer use and preserving unplowed areas on farms.

But all that is at risk as negotiations begin. "Because all farm bill programs are up for reauthorization, there's nothing to prevent lawmakers from shuffling the money earmarked for climate-smart agriculture around to other programs with no climate benefit to help secure votes to get the farm bill passed," says Andrew Lentz, EDF's director of federal affairs agriculture policy. "Protecting as much of that money as possible is one of our top priorities."

Making sure that the farm bill delivers on the historic climate investments in the IRA is part of a larger push spearheaded by EDF to get the right financial incentives in place to jumpstart the widespread adoption of climate-friendly farming practices.

As part of that push, in 2020 EDF helped found the Food and Agriculture Climate Alliance, an initiative that brings together environmental and agricultural groups to advocate for climate solutions that benefit everyone. Last year, this powerful alliance of groups worked together to help pass the Growing Climate Solutions Act, which will help farmers navigate the often complicated and confusing world of agricultural carbon markets. These markets provide payments to farmers for adopting practices that remove or reduce greenhouse gases, like reducing methane emissions or storing more carbon in soils. With the money made available through the farm bill, farmers would be better placed to adopt those practices and benefit from the payments a carbon market could provide.

"Carbon markets and farm bill investments in climate-smart agriculture can empower, to an unprecedented extent, producers to farm in ways that are better for the planet, while making their farms more resilient to climate change and more profitable," says Thomas. "Getting the right economic conditions in place is the key to transforming climate-smart agriculture from the exception to the norm."

Joanna Foster



## THE WILSON LEGACY

This feature honors the memory of Robert W. Wilson, a long-time EDF supporter and champion of harnessing market forces to drive environmental progress. See [edf.org/wilson](https://edf.org/wilson)

# Electric vehicle jobs boom

Climate legislation EDF helped pass boosts manufacturing and puts thousands to work.

By Liz Galst

**T**WO MAJOR PIECES OF LEGISLATION, which EDF helped to pass, are driving a boom in green jobs announcements across the United States.

Over the next five years, more than 15 states will boast new factories or production lines to manufacture electric vehicles, batteries, components and chargers, providing tens of thousands of new jobs.

Since the passage of the Bipartisan Infrastructure Law in 2021 and the Inflation Reduction Act in 2022, auto manufacturers have announced new investments totaling more than \$88 billion in the U.S. The Environmental Protection Agency's proposed new tailpipe pollution standards (*see p. 4*) will likely lead to increases in those investments.

"Each new investment and job announcement represents an opportunity to set a strong standard for what high-quality, community-sustaining jobs in the clean economy can look like," said EDF attorney Peter Zalzal.

In addition to boosting jobs and the economy, a growing market in electric vehicles is good for the climate and public health (*see sidebar*).

Among the new facilities are a Ford battery manufacturing facility in Marshall, Michigan, and the expansion of Tesla's factory complex in Sparks, Nevada. These two alone will generate as many as 5,500 new jobs, the manufacturers say.

## A policy-driven boom

Policies and legislation promoted by President Biden, including the Bipartisan Infrastructure Law and the Inflation Reduction Act, both of which include billions of dollars in EV-related funding, have been major drivers of this growth.

EDF spent many hours working with major automakers to understand their perspectives as we worked to help shape the Inflation Reduction Act.

That law allocated \$5 billion in grants and loans for electric vehicle manufac-

# 94,000+

The number of EV jobs announced in the U.S. since the Bipartisan Infrastructure Law passed in November 2021.

Source: EDF and WSP USA

turing. It also supports the retooling of existing car and truck factories to enable electric vehicle-related manufacturing, saving jobs at factories or production lines previously at risk of closure. And it includes tax credits for the purchase of personal and commercial electric cars and trucks.

The Bipartisan Infrastructure Law provided \$7.5 billion for 500,000 electric vehicle chargers nationwide, plus \$5 billion for clean school buses.

"There was already significant growth in the U.S. electric vehicle manufacturing sector before these game-changing pieces of legislation were enacted but their passage has really accelerated the



West Virginia electric bus manufacturer GreenPower Motor Company plans to add 200 jobs in 2023.

GREENPOWER MOTOR COMPANY



By 2030, Ford expects EVs, like this F-150 Lightning, to represent half of all global sales.

FORD MOTOR CO.

pace,” says Environmental Defense Fund attorney Andy Su.

Announcing the new \$3.5 billion Michigan facility, Ford’s vice president for EV industrialization, Lisa Drake, said: “I think the IRA was incredibly important for us, and frankly, it did what it intended to do and it allowed the United States to capture 2,500 fantastic technical jobs and all the indirect jobs that go with it, as well as the future growth.”

### Multi-state job growth

A new report from EDF and the consulting group WSP USA found that, in the last eight years, \$120 billion has been invested in EV-related factories. Almost three-quarters of that investment has come since the passage of the Bipartisan Infrastructure Law in November 2021, as has the announcement of more than 94,000 new jobs.

Since the report’s release in March 2023, several thousand additional jobs and several billion dollars of new investment have been announced.

While job announcements sometimes exceed the number of jobs created, some companies have already surpassed existing hiring projections. SK Battery America plants in Georgia exceeded initial hiring goals of 2,600 employees, two years ahead of schedule, and the company aims to add 400 workers over the coming year.

In Michigan, Ford, General Motors and LG Energy Solution are planning new and

expanded vehicle and battery factories. Ford and Honda are expanding, retooling and constructing plants in Ohio. The French manufacturer Forsee Power will also set up shop in Ohio.

Georgia is among the states seeing the biggest numbers of proposed jobs. The Hyundai Motor Group is planning a facility that the company anticipates will create 8,100 new jobs. And Scout Motors announced plans to build a \$2 billion electric truck and SUV factory outside Columbia, South Carolina, that will employ 4,000 people.

Electric vehicle manufacturing is also helping retain existing jobs. Nissan is making a \$500 million investment in electrification at its Canton, Mississippi, vehicle assembly plant that will support the retraining and upskilling of nearly 2,000 jobs. Similarly, GM’s decision to build electric vehicle battery components at its existing factory in Rochester, New York, will help sustain the approximately 750 jobs there.

New York Senator Charles Schumer, who urged GM to keep the factory open, said: “This factory invented fuel injection and now Rochester workers will help power the future of electric cars in America.” ■



**WATCH** How EDF helped pass the Inflation Reduction Act: [edf.org/IRA-how-we-won](https://edf.org/IRA-how-we-won).

## CLEAN CARS, CLEANER AIR



LAS VEGAS NEVADA PARKS & RECREATION

What’s good news for the economy is good news for families, the environment and public health, too.

Cars and trucks are responsible for about 23% of U.S. greenhouse gas emissions. In 2015 alone, tailpipe emissions were associated with an estimated 385,000 deaths worldwide.

A 2021 EDF report estimated that if all new passenger vehicles sold in the U.S. by 2035 were zero-emitting, then U.S. climate pollution would be slashed by almost 350 million tons each year — the equivalent of taking more than 77 million cars off the roads.

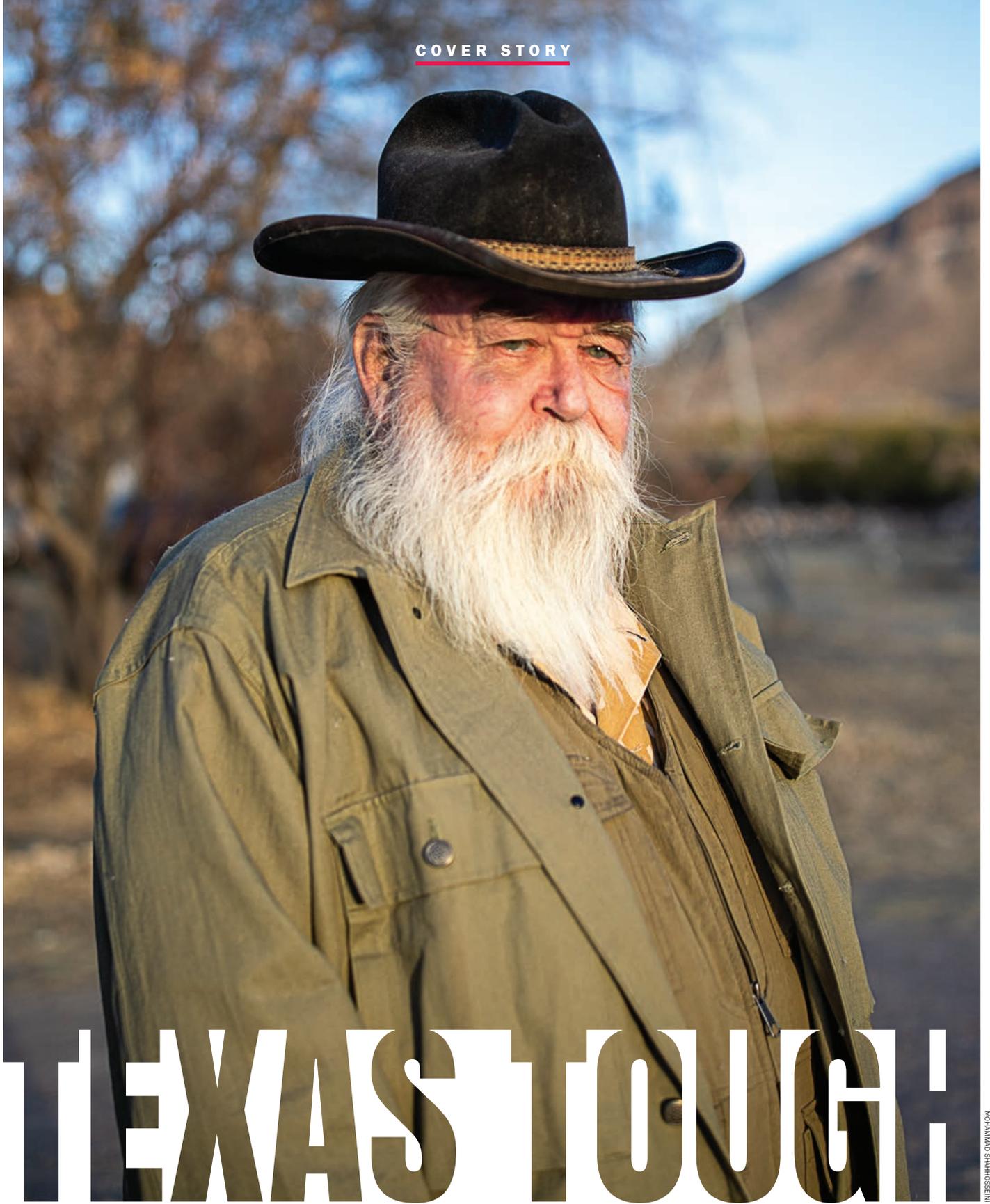
Families could save thousands of dollars per vehicle on fuel. And the pollution reductions would prevent as many as 5,000 premature deaths each year by 2040 and a total of as many as 98,000 premature deaths by 2050.

Mercedes McKinley is just one of the millions who would benefit. Because of the air quality, she recently moved her family from the East Las Vegas neighborhood where she grew up. The neighborhood is near a major highway interchange.

“In East Las Vegas, we have some of the worst air quality in the city,” says McKinley, who is the Nevada state coordinator for Moms Clean Air Force, an EDF affiliate. “When we’d change out our air filters, there was always a greasy film of soot. And the vents and the ceilings around the vents would be covered with it.”

At a recent neighborhood event, she says about 90% of the parents she met either had kids with asthma or had asthma themselves.

“This is a serious problem and vehicle electrification is the best way we can solve it,” she adds.



MOHAMMAD SAHHOSSEINI

**With water in short supply, resilience is a way of life for communities in the parched borderlands of Texas.**

**By Tom Clynes**



TOM CLYNES

## “MAYBE I’LL NEVER SEE WATER.”

Presidio County is one of the driest, poorest and least populated counties in Texas. “I like living here because it’s very calm,” says Luis Felipe Lujan. “The only problem is to have to haul water for us to live normally. That’s more or less my life here. Honestly, until now I’ve thought that maybe I’ll never see water, but hopefully I will.”

## “IT’S FRONTIER-LIKE OUT HERE.”

◀ Since Randall Cater’s well went dry, he has been relying on water from a defunct silver mine pumped through an improvised network of PVC pipes laid across the desert floor. “It’s always been sort of frontier-like out here, you know,” Cater says. “You have to be able to do for yourself. If something goes wrong with my plumbing, it’s on me.”

A FEW STEPS FROM THE MEXICAN border, in the West Texas town of Presidio, Luis Felipe Lujan backs his truck and trailer toward a water spigot, guided by his nephew, José Acosta. Once the truck is parked, Acosta jumps atop the trailer and inserts a hose into a 500-gallon plastic water tank.

“This is our ritual, once a week — and sometimes twice during the hot season,” Acosta says, as water slowly fills one of two tanks.

His uncle lives 10 miles to the north, in a cluster of modest houses known as Las Pampas Colonia. Colonias are unincorporated settlements that often lack basic amenities like running water, sewage systems and even electricity. There are more than 2,000 colonias in the United States, home to around 840,000 people, the majority along the Texas-Mexico border. In many cases, developers sold lots to low-income immigrants, promising to bring services that never materialized.

“There was an old well on our land, but it stopped pumping years ago,” says Lujan. “We’ve had to adapt. When my grandkids visit, they take two or three minute showers, and my wife struggles with the laundry.”

Across the U.S., more than 2 million people live without a reliable source of safe drinking water. Most are in the Southwest. Texas is laboring under a second year of drought, and its dwindling aquifers and aging water infrastructure can’t keep up with the demands of a growing population.

In colonias like Las Pampas, rates of water-borne diseases such as hepatitis A, dysentery and salmonellosis are higher than in the rest of the state. Even if tap water is clean, it can easily become contaminated as it moves through the collection of portable tanks, collection barrels, pumps and makeshift pipes that serve houses.

“This is really holding back the community’s economic development,” says Acosta. “My uncle tried to grow his business, but the local economy is contracting and he’s getting older. Most of our friends and relatives have left. The pizzeria next door shut down because they couldn’t wash the dishes. Really, what can you do without water?”

### A new approach

And yet, there *is* water here. Far underground are networks of aquifers that remain mostly untapped.

“We need deep wells and infrastructure to get that water to where it’s needed,” says Trey Gerfers, who directs the Presidio County Underground Water Conservation District.

EDF is helping Gerfers and other community leaders access funding opportunities from federal, state and private sources. EDF paid for an engineering consultation to support an application for state funds for groundwater monitoring and modeling, new wells, pumps and other infrastructure investments. The goal is to bring water to the community but also to include measures like rainwater catchment, tree planting and other conservation and restoration activities that will help keep the communities hydrated and aquifers healthy for years to come.

“Presidio County is employing good groundwater science to help them understand the condition and levels of the aquifers, so they know how to manage for long-term sustainability,” says Vanessa Puig-Williams, who leads EDF’s Texas water program.

EDF is a member of the Presidio County Water Infrastructure Steering Committee, formed to attract funding for sustainable wells, pipes and other infrastructure projects that will enhance residents’ health and water security.

One unusual aspect of the committee’s approach is its emphasis on region-wide consultation and collaboration. Residents from six Presidio County communities are represented.

“In Texas we have local football rivalries that often lead to communities competing against each other in other ways, too,” says Gerfers, who leads the committee. “We’re putting aside historic grudges and sharing resources, expertise and funding. We’re finding that water can unite people, because everyone needs it.”

### A ghost town reborn

Ten miles north of Las Pampas is a rare sight in the Chihuahuan Desert — a waterway that is actually flowing.

“I come down here to clear my head,” says Julia West, another member of the Presidio steering committee, as she leads a group of visitors down a path flanked by prickly pear cactus. West is a retiree who lives just above the bank of Cibolo Creek in the community of Shafter.

Once the site of a thriving silver mine, Shafter is a boomtown turned ghost town. West and 30 or so neighbors — whom she describes as “free-spirit, pioneer types” — have built or bought homes among the slowly dissolving ruins of roofless adobe structures.

The creek is beautiful, a linear oasis winding through parched hills, but its



## A HUGE OPPORTUNITY.

► Thanks to the work of volunteers like David Beebe (*right*), Presidio County is in line to receive millions of dollars in funding for regional water solutions. “This is the biggest opportunity we’ve had in at least a generation, if not two or three,” says Beebe, a Marfa resident and county commissioner.

flow is unreliable. West and other Shafter residents have long depended on the mine’s 900-foot-deep well for safe drinking water, which is pumped through a fragile network of PVC pipes laid across the desert floor.

When a new company purchased the mine in 2008, it continued providing water to residents even after mining operations ceased. But recent rumors of a pending sale or possible bankruptcy, and a series of pump breakdowns, have kindled concerns that taps could soon go dry. Since the departure of the last employee who was monitoring the well, many residents no longer risk drinking the water.



## A BUREAUCRATIC LABYRINTH.

EDF’s Vanessa Puig-Williams with Trey Gerfers, general manager of the Presidio County Underground Water Conservation District:

“Places like this have traditionally been shut out of programs that other regions take advantage of,” says Gerfers. “We didn’t have the knowledge and expertise to navigate that labyrinth of bureaucracy and applications, and it’s hard to raise matching funds for projects that require that.”



MOHAMMAD SHAHJOSSEN



TOM CLYNES

“It’s hard to have peace of mind,” West says. “We all wonder from day to day whether we’ll have water tomorrow. I would like to see a permanent, reliable source for drinking and for household use.”

### Water on the way

The Presidio County Water Infrastructure Steering Committee meets in the ornate 19th-century courthouse in Marfa, the county seat. At a recent meeting, Gerfers had good news. He’d received notice that Presidio County was one of 12 communities prioritized to receive several million dollars in funding from Texas’s Economically Distressed Areas Program. The program provides financial assistance for projects in areas where water or sewer services either do not exist or fail to meet minimum state standards. EDF supported the application process.

“I’ve never seen a collaboration come together this way, to give a community what it needs now and in the future,” says Rogelio Rodriguez of the Water Finance Exchange, which helps communities access funding for water infrastructure. “Other communities that don’t have much water can look at this as an opportunity to do the same thing.”

Gerfers and EDF’s Puig-Williams also see Presidio County as an inspiration to other regions in Texas that want to address their water infrastructure challenges holistically.

“So often the focus is on jobs and growth and pipes and infrastructure,” says Gerfers. “Those are all important, but we need to take care of where that water’s coming from and understand how it’s responding to climate change and drought. If we don’t preserve and enhance those groundwater resources, we’ll be building pipes that will ultimately be empty and creating jobs that will disappear.”

Communities in sparsely populated rural areas often struggle to apply for grants and loans to improve water infrastructure, because they lack matching funds and the technical expertise needed to submit applications. In an effort to help underrepresented communities play a more active role in solving water scarcity problems, EDF and the Rural Community Assistance Corporation established the Water Leadership Institute. The institute, which offers free training sessions, launched in California and Arizona and may soon expand to Texas and other western states.

### Pizza and regular showers

Luis Felipe Lujan’s homestead at Las Pampas Colonia lies on a windswept hill traversed by rattlesnakes, mountain lions and

pig-like javelinas. Behind the house, a single, thirsty-looking tree provides a patch of shade that doesn’t quite reach Lujan and his nephew, José Acosta, as they pump water from the trailer to the house’s holding tank.

Some of the pending state funds will be allocated toward the planning and design of a deep well and pipes to transport drinking water to homes in Las Pampas, as the county awaits approval of federally funded construction.

“If we get water, it would change everything about life here,” Lujan says.

“We could even reopen the pizzeria,” Acosta adds. “People and businesses may start to come back. When water comes, everything blooms.” ■



ALAMY

# Getting dangerous “forever chemicals” out of drinking water

EDF expert Tom Neltner explains what you need to know.

ISTOCK/GETTY IMAGES

**S**INCE THE 1940s, A CLASS OF chemicals called PFAS has been used in everything from food wrappers to waterproof jackets.

PFAS are useful because they repel grease, water and oil. But they have a pretty big downside: They're incredibly bad for your health. Some common forms harm the immune system and the reproductive system and increase the risk of certain cancers.

Because they don't break down easily, PFAS accumulate in the environment — earning the nickname “forever chemicals”; they contaminate our soil and water.

But recently, the U.S. Environmental Protection Agency moved to regulate the worst of these chemicals in drinking water to reduce the public's exposure.

EDF's chemicals expert Tom Neltner explains what the proposed rules would do — and what you can do right now to protect yourself from PFAS in your drinking water.



Neltner leads EDF's safer chemicals work.

JOHN RAE

## Q. What are PFAS chemicals?

**A.** PFAS stands for per- and polyfluoroalkyl substances — it's chemical geek for something that's loaded with fluorine atoms. They have many uses. For example, they are used to make jackets water-resistant, food wrappers grease-resistant and frying pans nonstick. PFAS have also been used in firefighting foams, though that is being phased out. They are entirely synthetic, and because they're used in so many things, they're all around us.

## Q. How do they end up in our water?

**A.** When PFAS are made, or used, some get released into sewers or into the air, and because they don't degrade easily, they eventually make their way into our water.

## Q. What are the adverse health effects of PFAS?

**A.** They can build up in your body to levels where we can see health harms. The harm that's driving the latest EPA action to regulate these chemicals in drinking water is to the immune system. For example, some PFAS chemicals undermine your immune system's ability to fight off viruses.

Not only that, they have been linked to cancer and they affect the reproductive system. A recent study found that women with higher levels of PFAS in their blood had a 40% lower chance of becoming pregnant.

## Q. What would the EPA's proposed regulation do?

**A.** The proposed rule, that will be up to utilities to follow, puts a limit on six of the worst forms of PFAS in drinking water. Utilities supplying water with PFAS levels over the limit will be forced to alert the public and take steps to clean up the supply, or face enforcement.

## Q. Is EDF doing anything to discourage the use of PFAS?

**A.** EDF works directly with a variety of businesses to introduce them to alternatives to PFAS and, importantly, educate them on where PFAS might be lurking in their supply chains. On the policy side, EDF and our allies also have a citizens' petition before the Food and Drug Administration asking it to remove its approvals for these chemicals in food packaging, a major source of exposure.

## Q. Are there any home filters that can capture PFAS chemicals?

**A.** Yes. An NSF 53 filter removes the most worrisome types of PFAS. NSF stands for National Sanitation Foundation. If you go to its website, you'll find a list of filters that can remove PFAS — just make sure it's certified for this work. Filters won't eliminate your exposure, but they will reduce it. This is a particularly important option for the 23 million U.S. households who rely on well water. Wells will not be covered by the EPA's proposed rule. It only applies to big water systems.

Vanessa Glavinskas

# New limits on mercury from power plants

**I**T'S FOUND IN POLAR BEARS IN THE Arctic and in seemingly pristine rainforests in Peru. It lurks in the streams and lakes of our prized national parks and turns up unexpectedly on dinner plates.

It's pervasive, persistent and poisonous: It's mercury and it's everywhere.

Now, for the first time in more than a decade, the Environmental Protection Agency (EPA) has proposed strengthening the landmark Mercury and Air Toxics Standards (MATS), which regulate the emission of mercury and other hazardous air pollutants from power plants.

"This rule has been a long time coming, but we applaud the EPA for modernizing these standards to further protect Americans from some of the most hazardous and persistent air pollutants," said Michael Panfil, EDF's senior director of climate risk and clean power.

Mercury is a highly potent neurotoxin that can have devastating impacts on the brain and nervous system. Exposure can cause permanent cognitive problems in children and harm cardiovascular health in adults. It is associated with endocrine disruption, diabetes risk and compromised immune system function.

The proposed rule would require a 70% reduction in mercury emissions from coal-fired power plants that burn what's known as lignite coal — a low-grade coal that's especially dirty.

The proposal closes a pernicious loophole in the existing standard that has allowed these plants, many of which are in North Dakota and Texas, to emit three times as much mercury as other plants.

In addition, the EPA is proposing to lower the limit on emissions of filterable particulate matter by 67%. That change targets dangerous heavy metals like nickel and arsenic. The proposed rule also requires continuous emission monitoring on smokestacks at all power plants subject to the regulation.

This update is designed to ensure that all power plants are complying at all times. The agency is expected to finalize a rule early next year.

Although scientists have known for decades that mercury poses a serious risk to human health, stronger regulation has been a long time coming. Up until 2012, coal- and oil-fired power plants, which combined were the number one source of mercury emissions in the U.S., had a free pass to pump mercury and dozens of other dangerous substances into the atmosphere.

That year the EPA finalized its Mercury and Air Toxics Standards which, for the first time, mandated that coal-fired power plants install pollution controls to dramatically reduce mercury, lead, acid gases and dozens of carcinogenic volatile compounds.

The MATS have since compelled power plants to reduce their mercury emissions by 86%, acid gas emissions by 96%, and non-mercury metal emissions by 81%.

The EPA estimates that the standards prevent up to 11,000 premature deaths,



Mercury ends up in waterways and in the fish we eat.

ISTOCK / GETTY IMAGES

4,700 heart attacks and 130,000 asthma attacks every year. Since the original rule came into force over a decade ago, the world's understanding of the risks posed by these hazardous air pollutants has greatly increased, while the technology to tackle them has vastly improved and become less costly. The EPA recently reported that the annual costs of complying with the standards are around \$2 billion — \$7 billion less than originally projected.

The Trump administration had attempted to undermine the rules. But in February 2023, the Biden EPA reaffirmed their legal basis, paving the way for the EPA's new proposed rule.

"The last ten years have proven that these standards are critical, effective and affordable," says EDF's Panfil. "With that track record, strengthening the standards is the next logical step."

Joanna Foster



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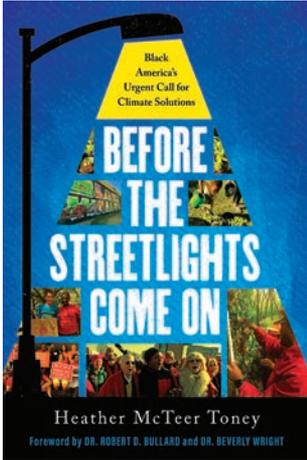
Many EDF supporters create a long-term impact by including EDF as a beneficiary of their retirement accounts. Some gift arrangements even offer lifetime incomes. While these gifts can cost you nothing today, they help us speed our work toward a stable climate.

See the enclosed envelope to learn more.

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# Inspirational summer reads

Recommendations from EDF's book-loving membership director, Sam Parry.



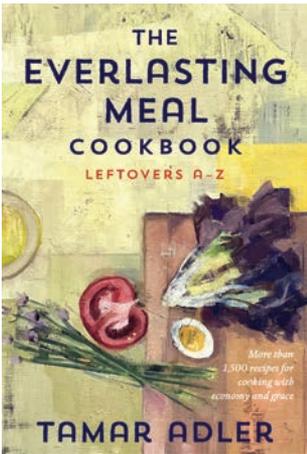
**Before the Streetlights Come On:  
Black America's Urgent Call for Climate Solutions**  
By Heather McTeer Toney

Like every kid in her neighborhood, Toney had to get home before the streetlights came on. "We had to hustle or we'd be in big trouble," says Toney, a former Mississippi mayor who also led EDF's community engagement efforts. The same goes now for climate change, she says.

Toney's down-to-earth book discusses the climate impacts faced by Black Americans and why Black communities are among the best suited to lead the climate fight. "This issue affects every aspect of life for Black America. We need the world, including the Black community, to respond accordingly."

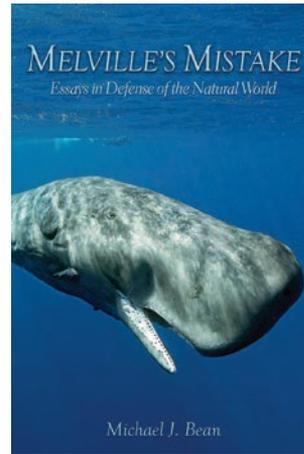


**READ** Sam's extended reviews are available at [bit.ly/3Lq6pkO](https://bit.ly/3Lq6pkO).



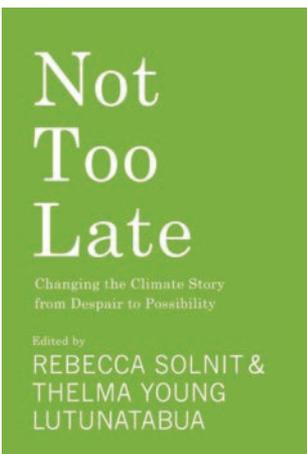
**The Everlasting Meal  
Cookbook: Leftovers A - Z**  
By Tamar Adler

Here's a climate solution you can sink your teeth into: more than 1,500 recipes to use up leftovers and other foods you might be tempted to chuck out — from dried-out marshmallows to limp greens. Such food waste produces 8% of the world's greenhouse gases. But as Adler reminds us, "Until it is squandered, food is food."



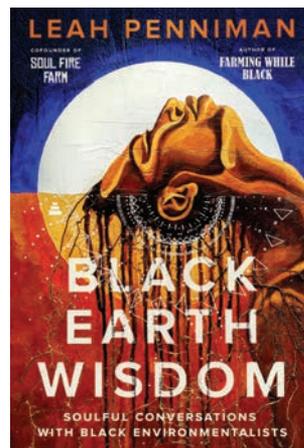
**Melville's Mistake: Essays in  
Defense of the Natural World**  
By Michael J. Bean

Bean devoted his legal career, much of it spent at EDF, to using the law to protect animals and plants from extinction. His book explores the successes and failures of his era so that "a new generation of conservationists and concerned citizens ... can better meet the challenge of preserving the earth's rich biological diversity."



**Not Too Late:  
Changing the Climate Story  
from Despair to Possibility**  
Edited by Rebecca Solnit and  
Thelma Young Lutunatabua

These energizing essays from climate activists around the world can inspire even the weariest climate warriors back into action. As Solnit writes, "Some days it can feel like you're the house that caught fire, but you might also turn out to be the firefighter or the water."



**Black Earth Wisdom**  
Edited by Leah Penniman

Penniman, the co-founder of Soul Fire Farm in upstate New York, talks with more than 30 Black environmentalists about spirituality, conservation and more in this collection of essays and interviews. What a pleasure to bump into the poet Dr. Ross Gay and the marine biologist Dr. Ayana Elizabeth Johnson in the same book!

## ★ YOU GOT THIS DONE!

# Magic school bus

**W**HEN STUDENTS IN LAS VEGAS, Nevada, go back to school this August, some of them will be riding the state's first electric school buses, thanks to years of advocacy by local residents like Jennifer Cantley and her kids.

Cantley, an organizer for EDF affiliate Moms Clean Air Force, started reaching out to Nevada legislators back in 2019 to secure state funds for electric school buses. Most of the country's 480,000 school buses run on diesel, and their exhaust pollutes the climate and harms children's lungs and brains.

Cantley was explaining these facts in a meeting with her state legislator, who had yet to support a funding bill for clean school buses, when suddenly her son Joey — then 9 years old — interrupted with some talking points of his own.

"Do you have any grandchildren?" Joey asked the astonished assemblyman. "Aren't you thinking about their future? If you say 'no' to this bill, you're saying 'no' to them."

Days later, the lawmaker signed on to a bipartisan bill that helped direct millions toward the purchase of electric school buses in Nevada.

Clark County School District, which includes Las Vegas, is operating the first two of those buses. The district plans to buy 25 more, thanks to the Environmental Protection Agency's \$5 billion Clean School Bus Program. The agency awarded \$935 million last year to 400 school districts from Guam to Maine, with buses expected to hit the road in 2024.

Even with funding available, school districts in Cantley's area still had doubts — could an electric bus handle long routes, hilly terrain and snow? So she engineered a meeting between superintendents in Nevada and California's Twin Rivers Unified School District, a pioneer in the transition to electric school buses.

Practical tips from Twin Rivers helped convince school officials in Carson City to replace some of its diesel buses with electric. The district will receive four electric buses later this year and plans to build



Jennifer Cantley has been driving school bus electrification.

14 charging stations with additional grant money.

"It's exciting to see the results of my work show up in the real world," says Cantley. "Every kid deserves a clean ride to school."

Shanti Menon

**TAKE ACTION** Help your school get an electric bus. Contact Julie Kimmel at [jkimmel@momscleanairforce.org](mailto:jkimmel@momscleanairforce.org).

## Unplugged:

# Real talk from an electric car driver

As the electric car market in the U.S. picks up speed, we caught up with retired Colorado schoolteacher Joan Hollins, one of America's 3 million EV owners, to find out what it's like to drive one. Hollins purchased a new Hyundai Kona Electric in 2022. We asked the 62-year-old how the transition is going — and what it's like to rely on an EV in a rural area.

**What she loves:** "It's the most fun car I've ever driven," says Hollins, adding that her grandchildren enjoy riding in it, especially when she hits the accelerator. "I just love leaving those gas-guzzlers in the dust!"

**What's different:** Not having to pump — or pay for — gas. "I just charge at home," Hollins says. "I can drive 250 miles on one charge, which is more than enough for how I typically use the car." When traveling longer distances, Hollins uses Google Maps to find charging stations.

**Total cost:** Hollins received \$15,000 for the two old cars she traded in. After \$10,000 in tax credits, her total out-of-pocket for a new EV was \$15,000.



**READ MORE** Hear from others ditching their gas-guzzlers for electric at [edf.org/EVRealTalk](https://edf.org/EVRealTalk).



**WE'RE ALL EARS** Got an environmental question you want answered or a success story to share? Let us know at [editor@edf.org](mailto:editor@edf.org).

“ Hope is not a resting place but  
a starting point — a cactus, not a cushion. ”

— H. Jackson Brown, Jr.,  
Author

