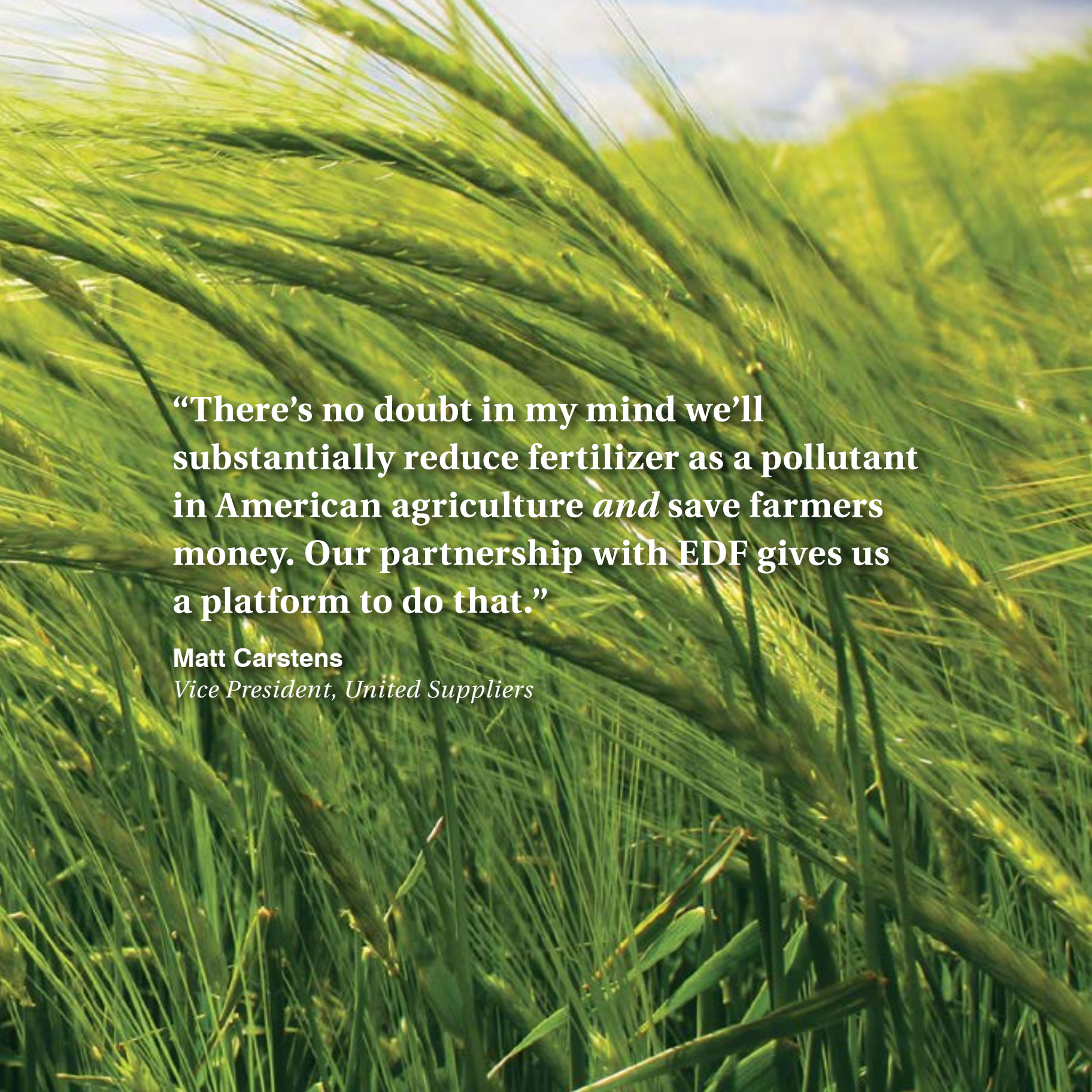


A vibrant, close-up photograph of a field of tall, green grasses, likely a coastal prairie or dune area. The grasses are blowing in the wind, creating a sense of movement and texture. In the background, a small, grassy hill rises against a bright, slightly hazy sky. The overall scene is lush and natural.

# **The case for a new conservation economy**





**“There’s no doubt in my mind we’ll substantially reduce fertilizer as a pollutant in American agriculture *and* save farmers money. Our partnership with EDF gives us a platform to do that.”**

**Matt Carstens**

*Vice President, United Suppliers*



## FARMERS AND RETAILERS TAKE ON FERTILIZER POLLUTION

In the summer of 2014, half a million residents of Toledo, OH, woke up to find their tap water unfit to drink. The cause? Poisonous cyanobacteria created by excess farm fertilizer polluting Lake Erie and other waters. With lakes across the country registering a rise of algae blooms driven by fertilizer, the same crisis could easily unfold in other cities. Fertilizer not absorbed by crops also can form nitrous oxide, a greenhouse gas 300 times more powerful than carbon dioxide.

EDF has partnered with farmers for years to cut fertilizer loss, advancing techniques to improve the rate and timing of fertilizer application and promoting natural filters such as wetlands to keep fertilizer out of

rivers. As a result, farms on half a million acres have cut fertilizer loss by an average of 25%—all while maintaining yields.

Of course that's only a small fraction of U.S. farmland, so we set out to scale up this successful approach. The quickest way to do so is by harnessing the U.S. grain supply chain. EDF helped secure a commitment from Walmart to reduce 20 million metric tons of greenhouse gases from its supply chain by 2015. To help meet that goal, the company is requiring its suppliers to create fertilizer efficiency plans. Food companies including Campbell's Soup, General Mills and Smithfield asked EDF to help them implement such plans, and this year

15 major Walmart suppliers, representing 30% of all North American food and beverage sales, began to launch fertilizer efficiency programs. To help farmers change long-held practices, EDF has partnered with United Suppliers (USI), an agricultural supply company, to create a fertilizer program that the company will implement through its members, who advise farmers managing 45 million acres. "When I heard there was going to be a meeting with EDF, I said, 'This can't be

*continued on page 36*



**“Farmers could become stewards of clean water, fresh air and healthy climate. They will need to be, if our planet is to sustain a growing population.”**

**David Festa**  
VP Ecosystems





**90 million**  
acres of corn  
in the U.S.



On average,  
**50%** of  
fertilizer is not  
used by crops



**5,000 sq. miles**  
Size of dead zone  
in Gulf of Mexico





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good,” recalls USI vice president Matt Carstens. “Instead, EDF reached out and said, ‘Let’s work together.’ It became clear we all wanted the same thing—to keep fertilizer out of lakes and rivers. So we dropped our weapons and went to work.”

EDF’s focus is on corn, the biggest source of excess fertilizer. The goal is to improve fertilizer efficiency on 50% of corn acres by 2020. “EDF put it all together,” says Carstens. “They worked on every aspect of the project, from developing the tools to education to accountability.”



**“Efficient fertilizer practices make great business sense. Growers are better off. And so is the environment.”**

**Bill Couser**, Iowa farmer and EDF partner

## A LEGACY OF COOPERATION

**Dr. Susan Harris / EDF donor**

Consultant and author Susan Harris believes people can change the world for the better—and trusts EDF to help lead the way. “We make progress by engaging all players, not by excluding stakeholders with whom we might disagree,” she says, citing EDF’s work with farmers and agricultural businesses to cut fertilizer runoff. “EDF is ahead of the curve in enlisting business to help

solve problems.” Harris’s commitment to sustainability runs deep; she participated in the first Earth Day in 1970. “The more I grasped the complexity of systems,” she says, “the more I appreciated EDF’s holistic approach.” As an Osprey Legacy donor, Harris has made a gift to EDF in her will. “I’m an optimist—and EDF is about tackling real problems in ways that work now and into the future.”

**“EDF is brilliant at bringing everyone to the table and getting the best outcome for all.”**



## A RIVER RUNS FREE

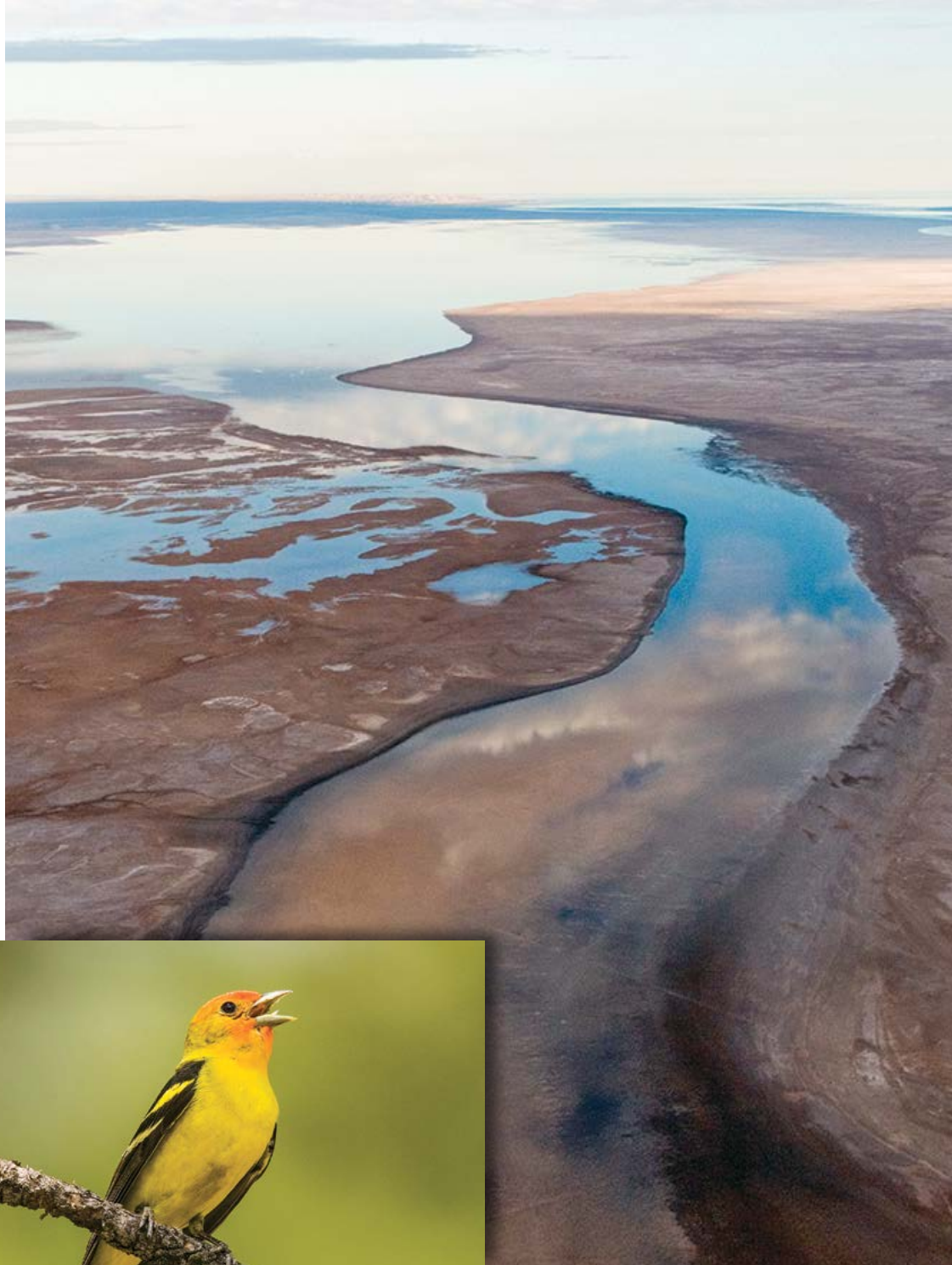
**W**ith water in the West chronically overallocated, EDF is engaging stakeholders to adopt flexible water management.

For almost half a century, the Colorado River has rarely run its full course to Mexico's Gulf of California. But in 2014, it did, thanks to a deal EDF helped broker. A "pulse flow" of water, designed to mimic spring floods, was released into the dry riverbed. It's now providing scientists with clues on how to revitalize the delta. Smaller releases are planned for the next two years.

The water came back because the United States and Mexico came together to share water, benefiting farmers as well as communities and wildlife. Delta inhabitants celebrated the return of the river with brass bands.

**"We're relishing this moment. Our partnership with Mexico is a model for binational cooperation on sharing rivers and adapting to climate change."**

**Michael Connor**  
*U.S. Deputy Secretary of the Interior*



The Colorado River pulse flow coincided with the spring migration of the Western tanager and other birds.



## HELPING RARE WILDLIFE SURVIVE IN OIL AND GAS COUNTRY

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**D**espite decades of effort, existing tools to protect America's rarest animals are not saving habitat fast enough to restore healthy populations. As many as 91 species of birds—including the whooping crane—are threatened with extinction. The key to recovery for many of these species lies with America's private farm, ranch and forest landowners who manage two-thirds of our nation's land. EDF has created powerful incentives for these landowners to embrace conservation

without onerous regulations. With EDF habitat exchanges, landowners are paid to maintain and improve habitat. The payments come from energy companies required to mitigate the damage they cause to lesser-quality habitat. Nowhere

is the urgency to save species greater than in the 16 Western states where two iconic rangeland birds, the greater sage-grouse and lesser prairie-chicken, nest in sagebrush and grasslands. The birds' shrinking habitat is home to the

**“Ranchers now want to raise birds as well as cows.  
We need to keep our youth on the land.”**

**Terry Fankhauser**  
*Vice President, Colorado Cattlemen's Association*



region's largest economic engines—ranching and energy development. In 2014, the U.S. Fish and Wildlife Service listed the prairie-chicken as threatened under the Endangered Species Act. Now the agency faces a 2015 deadline to decide if the sage-grouse is to be similarly protected. Federal listing could severely crimp energy production and ranching across many states and trigger prolonged court battles with an uncertain outcome for the bird.

EDF is working to recover the prairie-chicken by establishing a habitat exchange in the Great Plains. Similar efforts are under way for the sage-grouse in Colorado and Wyoming. We'll then expand our model to other states. Scientists will measure and verify the conservation actions taken, so we can ensure wildlife receives benefits in excess of impact. A company that degrades habitat will need to buy enough habitat credits to more than compensate for the harm it causes.

"This is the first systemic approach to conservation," says EDF scientist Ted Toombs, who's helping write the operations manual for the exchanges. "We realized piecemeal conservation wasn't saving species." The approach



Once numbering in the millions, the lesser prairie-chicken, known for its colorful courtship display, has declined more than 90% and survives on mere remnants of its historic range.

builds on EDF's successful program in the Texas Hill Country that aided the endangered golden-cheeked warbler in its Texas breeding grounds. Ranchers were paid by the Fort Hood Army base, and a rare bird became a valuable asset to nurture, like any other crop.

"By far the best feature of a habitat exchange is its collaborative nature," says Colorado rancher T. Wright Dickinson. "We all realize the status quo

 **75%**  
of threatened and  
endangered species are  
found on private land

wasn't working. EDF came along at the right time. They put an end to the conflict industry that had accomplished little actual conservation."