AFTER THE FIRESTORM

Ten years ago this summer, the Wallow Fire burned more than a half-million acres in the White Mountains, making it the largest wildfire in Arizona history. Although thousands of those acres will never recover, many areas have begun the slow process of coming back to life. Meanwhile, the debate about how to prevent even more devastating "megafires" continues.

BY KELLY VAUGHN || PHOTOGRAPHS BY JOEL HAZELTON

T'S A MONDAY AFTERNOON IN AUGUST 2020, and rain is hitting the Black River in drops as big as bullets. Willows choke the trail that leads to the river. On the slope across the water, the grass and ferns and adolescent aspen trees drink. They drink because the summer has been viciously dry. Rain is relief to this elegiac landscape.

The ponderosa pines, however, those that line the ridge above the aspens, are nearly a decade dead. They are but some of the charred remains of the Wallow Fire, which burned more than 538,000 acres in the forests of Eastern Arizona and Western New Mexico from May 29 to July 8, 2011. Still, those ponderosas drink on this day, if only because they are upright still, unfelled by the wind that carried the fire and the watery erosion that followed it.

Science tells us that fire is both an end and a beginning, that it is destructive and beautifying. Death. Rebirth. To some, fire is biblical in its stories of both rage and redemption.

Bear Wallow Creek nourishes new growth as it flows past ponderosa pines charred by the Wallow Fire in the Bear Wallow Wilderness. An improperly extinguished campfire in the wilderness area sparked the 2011 blaze, the largest wildfire in Arizona's history.

Young aspens glow in evening light on a hillside in Williams Valley, east of Big Lake. Today, burned tree trunks stand as reminders of the pre-Wallow forest.

There is perhaps no better illustration of this, scientifically or philosophically, than the landscape of the White Mountains as it looks today, from this spot along the Black River to the reaches of Escudilla Mountain — and even to the area near where the fire started, in the Bear Wallow Wilderness.

The more than 11,000 acres that constitute the wilderness were marked by two significant characteristics: lush, old-growth forest; and Bear Wallow Creek, a perennial stream that provides sanctuary to native, endangered Apache trout. Photographs of the wilderness before the Wallow Fire reveal grassy meadows, sparkling water and dense forest. It is little wonder, then, that on Saturday, May 28, 2011, two cousins, Caleb and David Malboeuf, ventured into the wilderness for a Memorial Day weekend adventure.

The federal criminal complaint filed against them months later, which we reported on in the June 2012 issue of *Arizona Highways*, outlined the Malboeufs' trip. On Saturday night, they cooked dinner over their ringed campfire, allowing that fire to burn out on its own. They went to sleep, presumably under a sky that harnessed enough stars and constellations to create a dim nightlight in the darkness of the forest, to make a person feel the heartbeat of the universe.

On Sunday morning, May 29, the cousins relit the fire to cook breakfast. Believing that the fire was out after several hours, the men went on a hike, leaving their two blue heelers and all of their camping equipment behind. When they returned, they faced a wall of smoke and flame. They could reach neither the dogs nor their gear and ran toward the Black River, where they camped again overnight before hiking to a forest road and alerting an Apache County sheriff's deputy, who in turn alerted the U.S. Forest Service. By Monday, May 30, the fire had grown to 1,445 acres.

THERE ARE SOME TOPICS, some stories, that stick with the people who translate them onto paper or into the space of millions of pixels for people to watch or read online. The Wallow Fire, for me, is one of those stories.

On June 12, 2011, I traveled to the burn area with Robert Stieve, the editor of this magazine. Robert outlines the reasons why in this month's *Editor's Letter* (see page 2), but I'll expand a little bit — aided by the notes I kept along the way, which were published on an early iteration of the *Arizona Highways* blog:

3:16 a.m. *We smell the fire, the smoke, for the first time — near Milepost 369 along U.S. Route 60 — and we're quiet for a few minutes. Both of us, I think, are afraid of what we're going to see.*

3:18 a.m. *We spot an elk, a big one, grazing along the side of the road at Milepost 371.*

3:26 a.m. *We're 10 miles from Springerville. The smoke is heavy, and it's impossible to see the stars that were so bright miles ago.*

3:32 a.m. *We arrive at an ADOT/Sheriff's Office roadblock and are cleared to access the restricted zone. Robert tries to call Fox News chief meteorologist Rick Reichmuth, our contact for the morning. The call goes to voicemail, so we drive through Springerville as we wait to hear from Rick. Everything is dark, as the town has been evacuated. Fire personnel and law enforcement are stationed at two motels in town, and signs thank the firefighters for their work. It's dark and quiet, and I can't help but think of* The Road.

3:45 a.m. *We arrive at the media staging area at Becker Lake and meet the Fox News crew.*

4:30 a.m. *Robert and Rick complete their first live segment. During the segment, some of* Arizona Highways' *images — from Hannagan Meadow, the Bear Wallow Wilderness, Escudilla Mountain — run on screen. They're showing a national audience the beauty of Eastern Arizona.*

5:00 a.m. *We meet with one of the Forest Service's fire information officers. He tells us of an opportunity to tour the burn area at 11 a.m., after a 10 a.m. press briefing.*

6:30 a.m. *During his second live segment, Robert encourages people to return to the White Mountains when the Wallow Fire has been extinguished and the smoke clears. The local economies will need the support of travelers. We know that we'll be back.*

Hours later, we took that opportunity to tour the burn area. By then, Wallow — powered by strong winds and an abundance of fuel — had torched more than 440,000 acres. By then, it had touched places such as Buffalo Crossing and Sprucedale. It had jumped to the area near Big Lake, to Three Forks and Campbell Flat. It was threatening Sam "Doc" Luce's ranch as it roared toward

the Blue Range Primitive Area. The fire was hungry. And it was threatening *everything*.

Five days prior, on June 7, Wallow had seen its most expansive day, growing by more than 77,700 acres and stressing the hamlets of Greer, Eagar and Springerville, all of which were under an evacuation order. Ultimately, thanks to the remarkable work of diligent firefighters, all three destinations were saved, and the evacuation order was lifted the same day we were there. (For years, a banner at the turnoff for State Route 373 to Greer thanked the public servants who protected the settlement, which dates to about 1879.)

Today, there's a file in the Forest Service's online archive titled "Wallow Fire AZ-AZSF-110152 Progression Map." It was last updated on June 27, 2011, at 10:49 p.m. It is a sad, watercolored Rorschach blot, the visual representation of too much preventable loss, blue to green to yellow to orange to red.

I remember the way it felt, 10 years ago, to be hopeful, to round a corner and see areas that the fire hadn't touched. And I remember the way it felt to be devastated just moments later, to find great blankets of torched forest around another corner. The fire had been burning for nearly two weeks.

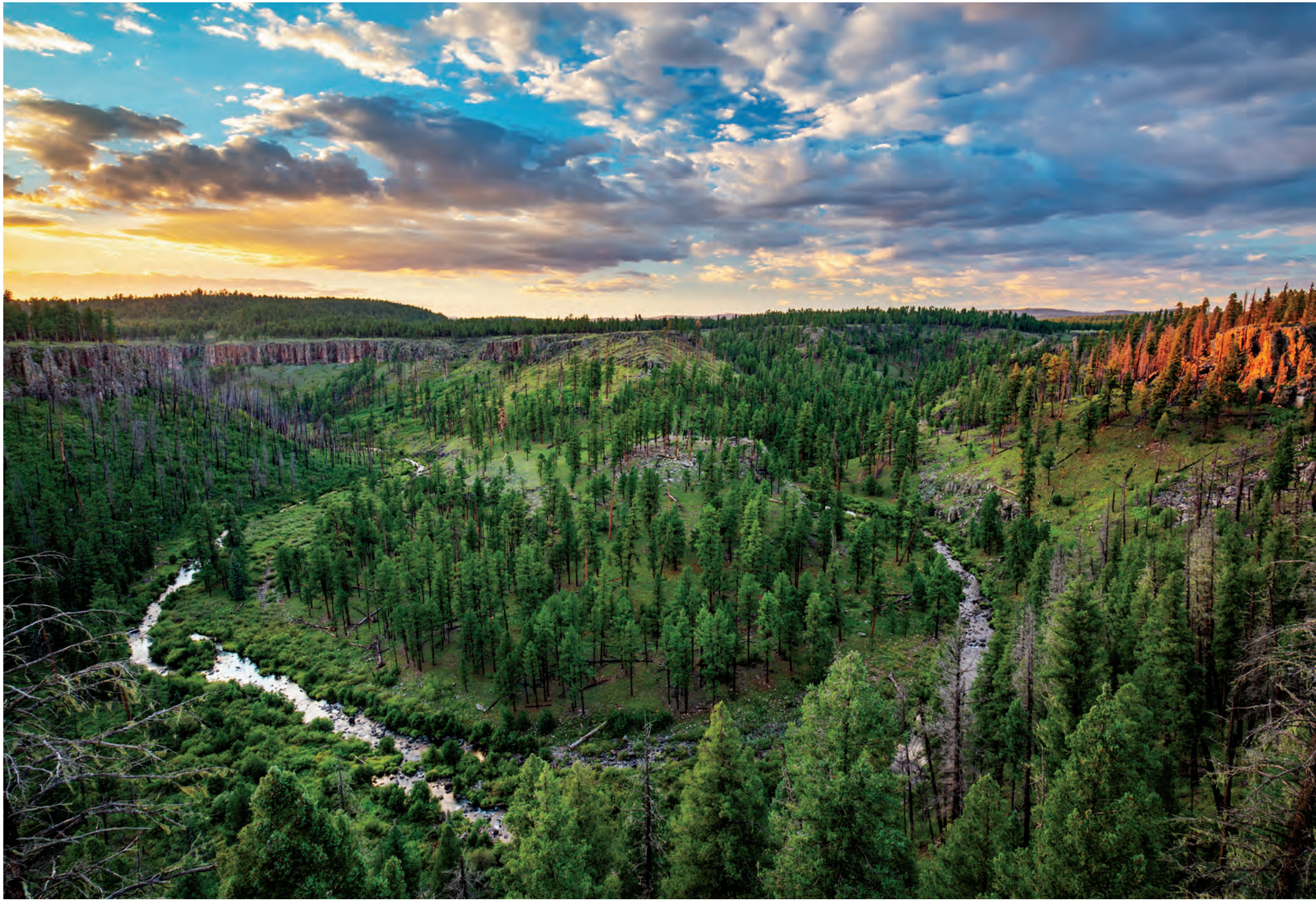
Near Tal-Wi-Wi Lodge in Alpine, we spoke to a young hotshot firefighter from Montana's Bitterroot Valley. Her name was Amanda Lane, and she was on a break between eight-hour assignments.

"This fire is particularly challenging because of the wind," she told me. "Sometimes, you're a lookout, trying to spot smoke columns. Sometimes, you're cutting hot lines. Sometimes, you're told you're going to mop up."

12:49 p.m. *We stop along the side of the road and await word from another division supervisor, who tells us we're going to the "dozer line," a crucial point in keeping the fire from Alpine.*

12:57 p.m. *We arrive at the dozer line and see a hillside of charred, but not leveled, pine trees. The line where the fire was forced to stop is a clear one, and slash piles indicate that the Forest Service was preparing a controlled burn before the fire started.*

Lane was one of the more than 800 firefighters who battled Wallow. Although 72 buildings were destroyed and 16 people were injured, no one was killed in the blaze, a testament to coordinated efforts between firefighters, the Forest Service, local leadership and law enforcement. Recently, I tried to find Lane. I wanted to talk to her again, to see how she remembered Wallow a decade later. Searching for her wasn't as easy as I thought it might be. First, I thought she owned a company in Montana that makes beeswax bags. Then, I thought she might be a police officer working on programs for the elderly through the Castle Rock, Colorado, Police Depart-



The patchwork nature of the fire's burn pattern is evident in this sunset view of a large bend in the Black River. While some parts of the pine forest were destroyed, adjacent sections were spared.

ABOVE: Burned and fallen trees define a late-afternoon view of a meadow along Grant Creek in the remote Blue Range Primitive Area.
RIGHT: Wildflowers and burned ponderosas reach toward the setting sun from the top of Escudilla Mountain, near Alpine.

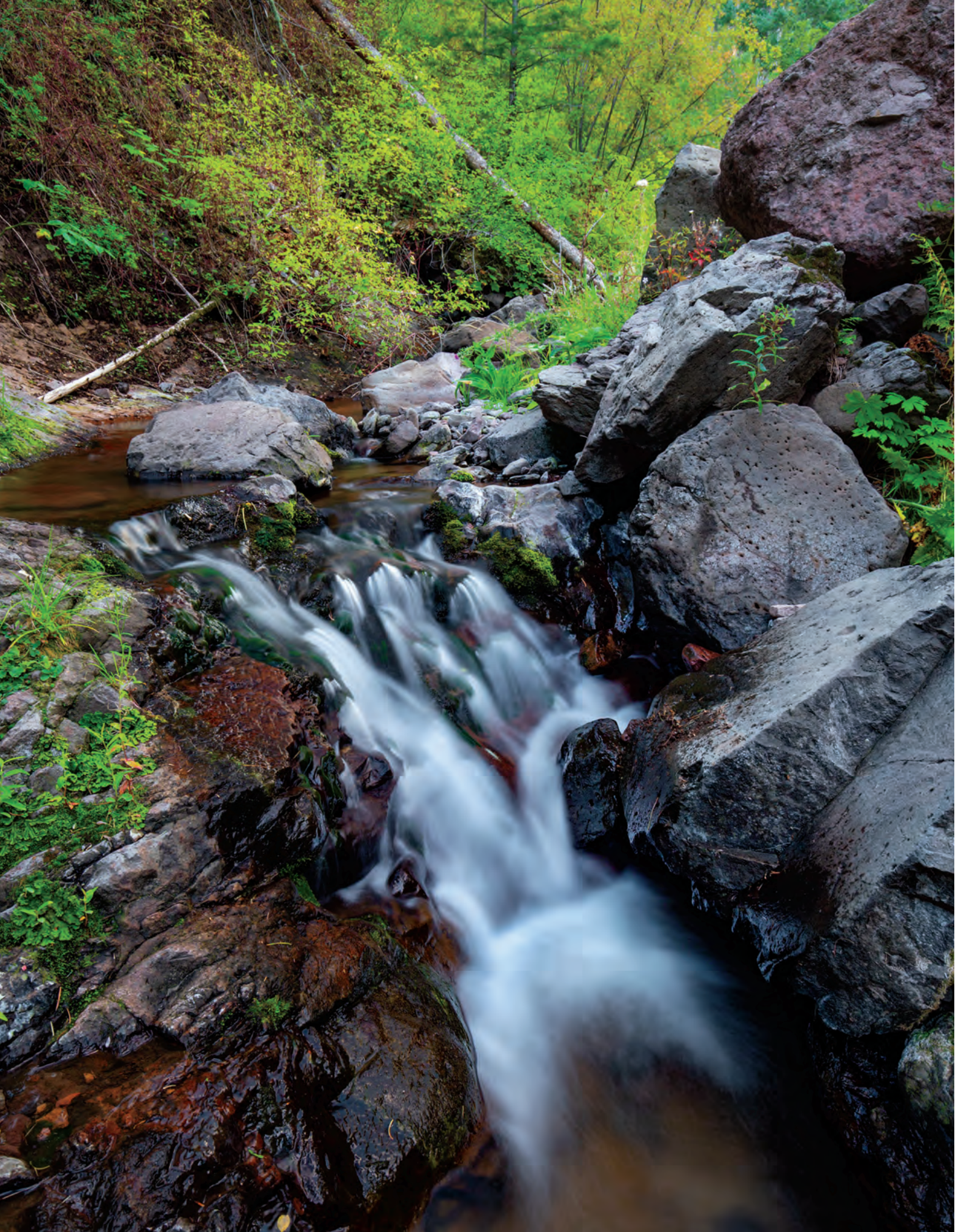
ment. Finally, a current Bitterroot Valley hotshot tracked her down for me. Lane, now Amanda Maki, is married with two children. She went from working with the hotshot crew to smoke jumping before moving into her current role as a fire prevention technician.

"Although Wallow may have been a record-setter for Arizona, I feel like there have been equally challenging fires that I fought after it," she says. "Each fire is different and hard in its own way. When you think you may know what to do in a situation, one slight change can quickly crush your plan."

In rereading my notes from Wallow, I'm reminded of the tension of the entire situation, one that lasted almost another month after we left. That tension continues in some ways now, as forest supervisors look to prevent future "megafires." Controlled burns and forest management have long been topics of conversation among environmentalists, scientists and other stakeholders. And as climate change — elevated global temperatures, extended periods of drought and generally more volatile environmental conditions — drives more (and more massive) wildland fires, those conversations are getting longer and louder.

"Fire policy isn't separate from the rest of our national conversations," says Stephen Pyne — the author of *Fire: A Brief History*, and a professor emeritus at Arizona State University's School of Life Sciences. "Anything that one group says, another will instinctively oppose. It's also true, even more so today, that fire gets hijacked to advance other agendas. It's so visceral, so graphic. Fire gets attention. People exploit it to argue for logging or climate change or affordable housing or whatever. We tend not to craft responses that fire understands. I imagine a group of commentators standing around a large fire, but with their backs to the flames, using the fire to animate a message they project to their audience before them. What we need is for everyone to turn around and talk to one another over the fire."

And in the wake of massive wildland fires since Wallow — the Camp and Creek fires in California, and the Yarnell Hill, Slide, Bush and Woodbury fires here in Arizona, to name just a few — it's clear that something has to change. As I wrote this story in early April, news broke of the Margo Fire, which burned through thick tamarisks in a dry river bottom in Dudleyville, a town in Central Arizona's Pinal County. Residents were evacuated, and structures were destroyed. That fire was



The upper reaches of KP Creek, a waterway in the Blue Range, were heavily impacted by the fire, but much of the creek, including this waterfall, was spared.

quickly brought under control, but how fast, and for how long, will the next wildfire spread?

"The past four years, especially in California, do seem an inflection point," Pyne says. "Who outside of Arizona remembers the Wallow or Rodeo-Chediski fires? They have been overtaken by more deadly and media-savvy outbreaks. One point of good news, though, is that fire's ability to interact means we don't need a trillion-dollar program specific to fire. We can integrate fire with other reforms, mostly infrastructure, that we need to do anyway, like rebuilding our creaky electric grid, and designing and retrofitting exurbs better, and so on. Stopping power line fires and hardening vulnerable communities would go a long way to reducing damages.

"I have children. I have grandchildren. If I make average life expectancy, I'll likely have great-grandchildren. I have to believe we can do better."

BUT THIS ISN'T JUST A STORY about fire policy; it's also about resilience. And it's not just the policymakers who have to do better. Everyone who takes advantage of public lands has to be better, too. The Department of the Interior estimates that nearly 90 percent of wildland fires in the United States are caused by people — failing to properly extinguish campfires, tossing cigarettes into dry grass, allowing chains to drag, other mechanisms of human laziness.

Had the Malboeuf cousins actually extinguished their campfire — a tragic mistake for which they served two days in jail and were ordered to gradually pay more than $3.7 million in restitution — Wallow wouldn't have burned. But odds suggest that another wildland fire likely would have burned in the region between then and now.

Joel Hazelton's photographs illustrate this story, and he's spent countless days and nights in the White Mountains since the fire burned. He, like so many others, finds hope and beauty tucked away within many of Wallow's painful scars.

"Despite the effects of the Wallow Fire, the White Mountains are still beautiful, and some of the areas impacted by the fire remain my favorite destinations in the state," Hazelton says. "The grassy meadows and cienegas around Big Lake are lush and vibrant and lined with stands of young aspen trees where the old forest burned, and some of the more intensely burned areas, such as hillsides along the Black River, now host a variety of summer wildflower blooms that may not have existed with the previous tree cover."

Indeed, montane grasslands and meadows have fared well in the wake of the fire — and ultimately, that's good for wildlife and range management.

ONLY YOU!

To ensure that your campfire is entirely out, follow these easy steps:

- If possible, allow the wood to burn completely to ash.
- Pour as much water as possible onto the fire — at least until all of the embers, not just the burning ones, are drowned. Continue to pour water onto the fire until the hissing sound stops.
- If you're without water, stir dirt or sand into the fire until the embers are completely buried.
- Scrape any remaining logs and sticks to ensure that all embers are removed and that none of them are exposed and still smoldering.
- Continue to add water, dirt or sand and stir with your shovel until all of the material is cool. If it's too hot to touch, it's too hot to leave.
- Never, ever leave a campfire unattended.

Source: smokeybear.com

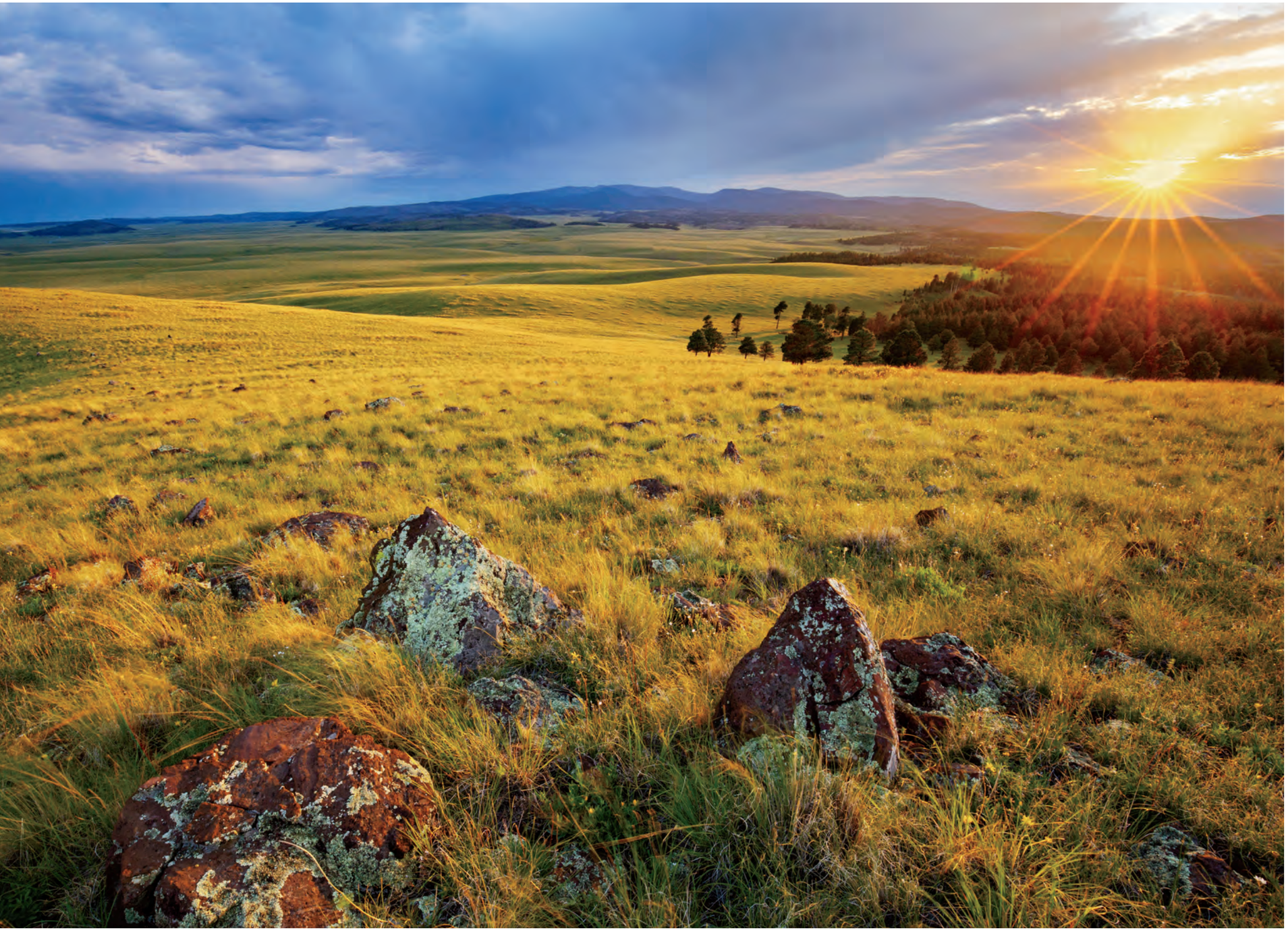
George Ruyle, the Marley chair for sustainable rangeland stewardship at the University of Arizona's School of Natural Resources and the Environment, says that after the fire, the Forest Service was concerned about cattle grazing and considered resting burned areas for several seasons. Ruyle's studies, though, found that the range was actually healing much faster than the forest at large.

"It wasn't a very severe burn on the grasses," he says. "And because of that, the recovery was really fast. There was around 10 percent — maybe a little bit more — of tiller mortality. That's not whole-plant mortality. … It basically had recovered by the end of the first growing season, by the end of September or so in the first year."

Ruyle and his team went in again each of the following three years. They measured again and again. And the grasses continued to improve in terms of productivity. Ultimately, the species composition of the ground cover didn't change very much. "Those plant communities are really in pretty good condition," Ruyle says.

And that, ultimately, is good for both livestock and wildlife. Ranchers didn't have to make the expected changes to their grazing protocol, and there were no arguments about where and when the livestock went back onto the range, as long as fences were repaired.

However, "the fire itself changed things in terms of grazing *distribution* on the mountain, particularly for elk," he adds. "They just started using their habitat completely differently after the fire. They were more dispersed. They were into areas they hadn't previously been able to



The sun sets over one of the White Mountains' seemingly endless meadows, as viewed from the summit of Wahl Knoll, about 5 miles east of Greer. Mount Baldy is visible in the distance.

graze because the trees were so thick and there was really no understory vegetation."

There also was substantial recovery of springs at the bases of hill slopes that had burned, and particularly where trees had burned very, very hot. "One of our riparian study areas was a significant sedge and wetland grass community," Ruyle says. "It became so saturated, we couldn't walk in there, and that changed the way wildlife moved through the area. Wider distribution is a good thing. You don't have the pressure on localized areas as much, and there's more opportunity for regeneration."

But as Hazelton notes, not all areas have recovered quickly. "Unfortunately, there are some large swaths of land that burned so hot that the trees that used to be there now look like matchsticks, and the only new growth is dense thickets of New Mexico locust," he says. "This is especially saddening in beautiful valleys such as the South Fork of the Little Colorado River, where a previously peaceful stroll through ponderosa-lined meadows is now a thorny bushwhack amid the skeletons of a once-healthy forest. These areas will never be the same in my lifetime, and I fear for how the lack of tree cover is impacting the ecosystem."

In the decade since the Wallow Fire, I've spent dozens of weeks in the White Mountains, watching campfires crackle, pop and slowly die. I've seen hundreds of elk bed down for the night in a meadow the size of two football fields near Alpine. I watched a Mexican gray wolf amble across the pasture at the X Diamond Ranch, in the cradle of the Little Colorado River. The fire burned all the way to the ridge overlooking the valley. The ranch itself was saved.

Just a year after the fire, I had little hope for Escudilla Mountain — where Arizona's last grizzly bear lived and died, and where naturalist Aldo Leopold launched his career with the Forest Service. Then, it wore a post-apocalyptic shroud. Now, although the skeleton trees remain, there are lithe aspens, and come summer, red cinquefoils sprout from earth made richer by the ash. There was too much to be lost there.

One afternoon, I watched an osprey pluck a grayling, its silver scales flashing iridescent pink in the sunlight, from Aker Lake — not far from the fire's inception point, and another place I thought might never recover from Wallow. That same night, a skunk outside kept us frozen and perfectly quiet for 15 long minutes in our tent. Not even the dog made a sound, but later, the night birds did. Near the lake, summer wildflowers and thick blades of grass grew amid hollowed-out logs, the remnants of ancient ponderosas that fell 10 years ago.

And I often have slept under a sky that harnessed enough stars and constellations to create a dim nightlight in the darkness of the forest. I have felt the heartbeat of the universe, and I think it is tucked away within the rib cage of the Apache-Sitgreaves National Forests.

For a while there — as the fire burned in 2011, and for a few years after — the pulse of the forest was weak. Ten years on, as the earth in Eastern Arizona heals, that sound echoes off canyon walls and carries in the wind. AH