FOREST NEWS

The Newsletter of Forest Service Employees For Environmental Ethics

Fall 2023

Surviving Wildfire

Inside

GUEST AUTHOR: RICK BASS / LOGGING NEAR YELLOWSTONE / ELM RESTORATION / EASTERN FORESTS, PART 2

The Camel's Nose is Under the Tent

The Forest Service has the kind of problem that most of us wish we suffered from. It has more money than it can spend. Thanks to exceedingly generous appropriations by Congress to fix the Wildfire Crisis (sic), the agency is awash in cash.

So what could be the problem with too much money? Just hire the people and do the work, right? Ahh, but that's not proven so easy. In 2006, President Bush's Agriculture Secretary Mike Johanns decided to implement "the most significant change to [Forest Service] business practices since its founding in 1905 by centralizing many of its business operations, including human capital management, in Albuquerque, New Mexico." Creation of this Albuquerque Service Center is widely regarded as the single worst administrative decision in Forest Service history. Its stultifying and ineffective bureaucracy has made hiring all but impossible (not to mention payroll, travel, and just about everything else that should run smoothly behind the scenes but bollixes everything up when it doesn't).

To the Forest Service's credit, it appears to have recognized that it is simply incapable of solving its internal administrative problems. The problems are so baked-in that solving them would require razing the entire edifice and starting over (one more reason to move the Forest Service into Interior, where it can be parted out to the Park Service and BLM).

So instead of solving its morass, the Forest Service has decided to outsource the work of managing our national forests to the private sector. In an unprecedented move, the agency is shoveling hundreds of millions of dollars out the door to non-governmental organizations, states, and tribes to do the jobs formerly done by Forest Service workers. You can see the ripple effects in the Help Wanted ads of its grantees.

The nonprofit National Forest Foundation is advertising for an "Umpqua Reforestation Coordinator" to "coordinate the advancement of reforestation activities on the Umpqua National Forest." This NFF employee will work in the Forest Service's office doing tasks formerly done by the Forest Service's own workers.

NFF is now also carrying out the on-the-ground management of thinning, road maintenance, noxious weed control, and other day-to-day tasks on the Tahoe National Forest, at a cost of $117 million "to treat over 21,000 acres and produce over 55 million board feet of timber from forest thinning treatments." NFF also gets to keep whatever proceeds it can earn from selling this timber.

NFF isn't the only private corporation to assume the Forest Service's work. The National Wild Turkey Federation, also a nonprofit, received $50 million to cut trees, set fires, and "promote commercial use of forest products, including transporting wood fiber from over-supplied areas to areas where it can be used," quoting from the Forest Service press release. Trout Unlimited got $40 million "to improve watersheds on national forests and grasslands."

Of course, outsourcing happens all the time in every sector of our society. Sometimes an outside specialist, contractor, or consultant is just what an organization needs to get a task done better or at less cost. But that's not what's going on here. This outsourcing is happening because the Forest Service has become incapable of doing anything other than shovel tax dollars out the door to someone who can do the work. Now that this camel's nose is under the Forest Service tent, there will be no going back.

Sincerely,

Andy Stahl

Inside

Cover: A crowning wildfire approaches a home in the wildland-urban interface.

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Autumn leaves turn the Lamoille Canyon gold in the Ruby Mountains of Humboldt-Toiyabe National Forest (Forest Service photo by Susan Elliot).

Featured Forest

Humboldt-Toiyabe National Forest

The Humboldt-Toiyabe National Forest is the largest National Forest in the lower 48 states. The Forest has numerous large but non-contiguous sections scattered across most of Nevada and a portion of eastern California.

Humboldt National Forest accounts for 43.5% of the total land area and takes its name from the Humboldt Mountain Range and the Humboldt River, both of which were named for German naturalist Baron Alexander von Humboldt by explorer John Fremont. The larger Toiyabe National Forest lies to the south and west of Humboldt. It's name is a Shoshone word meaning "mountain."

Diverse landscapes, from sagebrush country to snowcapped peaks, characterize the combined National Forest, which encompasses 17 wilderness areas and parts of seven others. Humboldt-Toiyabe lands are ancestral homelands of several Tribes, including the Southern Paiute, Northern Paiute, Western Shoshone, and Washoe. All are descendants of the prehistoric peoples that inhabited the vast landscape stretching east from the Sierra Nevada across the basin and range lands of Nevada. Between 80,000 and 100,000 archaeological sites are scattered across the landscape, some dating as far back as 13,000 years.

Europeans began to travel through the Great Basin as early as the 17th century, but it was the 1849 California Gold Rush that triggered full-scale settlement. Discovery of the Comstock Lode in 1859 was the first major silver discovery in what is now the National Forest. The discovery brought a rush of prospectors to the Reno area. Mining camps thrived, and much of the billions of board feet of timber used for mining operations were cut from the mountains that now comprise the Humboldt-Toiyabe National Forest. Ghost towns and mining cabins attest to the short-term wealth created by mining.

Today, the Humboldt-Toiyabe includes 50 percent of all Forest Service Wild Horse and Burro Territories — 1.1 million acres — and offers many recreational opportunities, including camping, hiking, fishing, hunting, winter sports, horseback riding, mountain biking and more.

In a neighborhood decimated by the 2020 Almeda Fire in southern Oregon, fire-hardened buildings survived. (Pink stains show that aerial fire retardant proved ineffective at saving homes from the fire.)

In Depth

How Homes Can Survive Wildfire

While there's no historical evidence that Nero "fiddled while Rome burned," there's been plenty of fiddling in our forests while homes and communities burn in the American West. Jack Cohen has not been fiddling. His decades-long research at the Forest Service Missoula Fire Sciences Lab has dispelled commonly espoused wildfire myths and demonstrates that people who reside in wildland-urban (WU) areas do not have to live in fear of losing their homes to catastrophic wildfire.

As Cohen points out, Forest Service data show that 98% of wildfires are consistently controlled before they grow large enough to become destructive to communities. National Interagency Fire Center records show that the number of fires per year has remained fairly consistent, averaging around 70,000 since 1983 when the information was first tracked. While the number of fires per year remain reasonably consistent and the percentage of uncontrolled fires holds steady at 2%, a study led by Philip Higuera shows that the destructiveness of uncontrolled fires increased by 246% over the past decade.

Examples of this increased destructiveness include the 2018 Camp Fire, which claimed 85 lives. The fire burned through thinned and clear-cut forest to incinerate over 18,000 homes and destroy the town of Paradise. In 2021, the Dixie fire burned through forests treated for fire mitigation and leveled the town of Greenville, California. In December 2021, the Marshall Fire near Boulder, Colorado, burned through grasslands to destroy more than 1,000 homes in less than 8 hours.

The numbers reveal, as Cohen states in the film *Elemental: Reimagine Wildfire*, "There is no management trend that indicates that we're going to be able to control all wildfire." Cohen concludes, "While extreme wildfires will evade control and inevitably spread to communities, WU fire disasters are not inevitable. We can effectively prevent WU fire disasters by reducing home ignitability … without necessarily controlling wildfires or altering vegetation."

Much of the rationale for cutting trees in the forest is based on the idea of preventing crown fires, which spread from treetop to treetop. But as Cohen's research revealed, "More than half the time, the big crown fires aren't igniting these structures. It's something else. ... As it turns

out we're talking about a burning ember landing on the structure and the debris that maybe is in the rain gutters and igniting that debris that then puts flame on the eaves that then spreads into the attic of the house and totally consumes the house." And wind-driven wildfires are essentially impossible to control no matter how much fuel (i.e., trees) is removed from forests. That's because wind can carry embers more than a mile, bypassing fuel breaks and thinned forest to start spot fires that create more embers to be spread by the wind.

Cohen's passion for science readily translates to film as he describes the implications of his work in *Elemental*: "What this all means is that we have huge opportunities to change the requirements of combustion such that it doesn't happen. We don't have to control the extreme wildfire in order to keep the house from igniting and burning. And we don't have to live in a concrete ammo bunker to prevent the next Paradise."

As Cohen's research demonstrates — along with the Camp, Dixie, and Marshall fires — forest treatments for wildfire mitigation have not been shown to save lives, homes, or communities, yet the Infrastructure Investment and Jobs Act gave the Forest Service $3 billion to accelerate forest treatments — i.e., tree cutting. "For the sake of fiscal responsibility, scientific integrity, and effective outcomes," Cohen told Bill Gabbert of *Wildfire Today*, "it's high time we abandon the tired and disingenuous policies of our century-old all-out war on wildfire and fuel treatments conducted under the guise of protecting communities."

Cohen's work informs the National Fire Protection Association's (NFPA's) Firewise USA program, which provides practical, effective recommendations for protecting homes and communities from wildfire. The NFPA website acknowledges that "embers and small flames" are "the main way that the majority of homes ignite in wildfires," and its Wildfire USA program stresses the importance of the Home Ignition Zone, a concept developed by Cohen.

The Home Ignition Zone is actually three zones, each of which carries different recommendations for protecting homes and communities against wildfire. The home and everything within 5 feet of any part of the structure are the Immediate Zone and the most critical for home survival.

Firewise USA guidelines are explicit: "START WITH THE HOUSE ITSELF then move into the landscaping section of the Immediate Zone." Recommendations for this zone include:

- Clean roofs and gutters of dead leaves, debris and pine needles that could be ignited by embers.
- Replace or repair any loose or missing shingles or roof tiles.
- Reduce the risk of embers passing through eave vents by installing 1/8-inch metal screening.
- Clean debris from exterior attic vents and install 1/8 inch metal screening to prevent embers blowing into attics.
- Repair or replace damaged or loose window screens and any broken windows.
- Screen or box-in areas below patios and decks with wire mesh to prevent combustible materials like leaves from accumulating.
- Move any anything that can burn away from wall exteriors — mulch, plants, leaves, needles, firewood, etc.
- Remove anything stored underneath decks or porches.

From 5 to 30 feet from the home is the Intermediate Zone. Within this zone, Firewise USA calls for "careful landscaping" that can help "decrease fire behavior." Intermediate Zone recommendations include:

- Clear vegetation from under stationary propane tanks.
- Create fuel breaks with driveways, walkways, patios, and decks.
- Keep lawns and native grasses mowed to a height of four inches.

The Bradshaw home survived the 2020 Beachie Creek Fire in Oregon largely thanks to "home hardening" (photo by Ralph Bloemers, Elemental: Reimagine Wildfire).

- Remove ladder fuels (vegetation under trees) so a surface fire cannot reach the crowns. Prune trees up to 6-10 feet from the ground (not more than a third of the overall tree height for smaller trees).
- Space trees to have a minimum of 18 feet between crowns with the distance increasing as the slope increases.
- Tree placement should be planned to ensure the mature canopy is no closer than 10 feet to the edge of the home.
- Trees and shrubs in this zone should be limited to small clusters of a few each to break up the continuity of the vegetation across the landscape.

The Extended Zone is the area 30-100 feet from the home. For this zone, Firewise USA guidelines include:

- Dispose of heavy accumulations of ground litter and debris.
- Remove dead plant material.
- Remove small conifers between mature trees.
- Remove vegetation adjacent to storage sheds or other outbuildings.
- Trees 30-60 feet from the home should have at least 12 feet between canopy tops (more if the trees are on a slope).
- Trees 60-100 feet from the home should have at least 6 feet between the canopy tops (again, more spacing for steeper slopes).

Firewise guidelines can be implemented for a single home or for an entire community, and communities of between eight and 2,500 homes can become certified as Firewise USA sites, a process that engages the entire community in a multi-year planning and implementation process. Firewise guidelines are also shaping new construction, sometimes through building code requirements, and evidence from the Aug. 9 Lahaina Fire in Maui shows that the guidelines work.

The Insurance Institute for Business and Home Safety recently published a report showing that these building codes and construction techniques were effective in saving homes from the Lahaina Fire. The report highlights a residential development of single-family homes and multifamily units that escaped destruction at least partly due to fire-resistant construction and modern building codes. While the exteriors of some buildings ignited, they were not consumed by flames. The report notes, "Hawaii's modern building code has high-wind requirements that introduced elements that helped newer construction resist wildfire conditions."

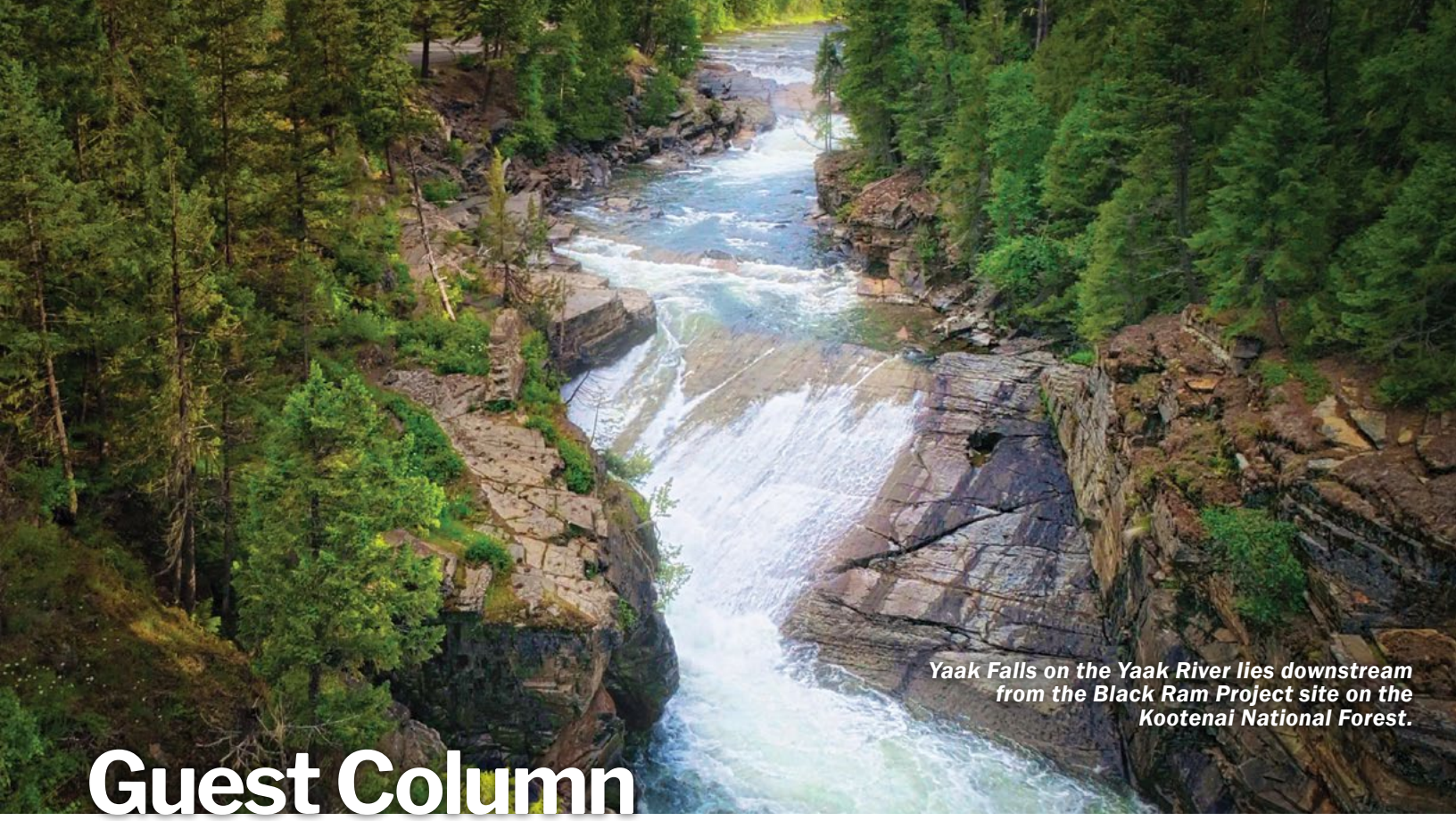
Even though the homes in this development were located close together, the homes did not burn. The report lists three construction traits that contributed to home survival:

- Class A roof covers (asphalt shingles and metal).
- Non-combustible exterior wall materials.
- Screened vents that prevented embers from entering the attic space.

The report also notes that the surviving neighborhood had less landscape vegetation than subdivisions that were destroyed by the fire. Less vegetation near structures meant less fuel for the flames to spread from one structure to the next.

Real-world evidence from Colorado to Hawai'i refutes the current federal funding paradigm and supports Cohen's findings. "I have a high level of confidence," Cohen says, "that we can prevent community fire destruction during extreme wildfires because the research that has gone on for the last 30-plus years shows us that we have opportunities to prevent the big community fire disasters. But if we continue our current emergency response approach, wildland-urban fire disasters will be inevitable. ... It's very frustrating to me to realize that Paradise didn't have to happen and then listen to an interview of a fire professional saying there is nothing that we could have done — because there is."

Thanks to home hardening and defensible space, this home near Los Padres National Forest survived the 2017 Thomas Fire (photo by Stuart Palley for the Forest Service).



Yaak Falls on the Yaak River lies downstream from the Black Ram Project site on the Kootenai National Forest.

Guest Column

The Song of the World

by Rick Bass

There are so many ways I would like to see the Forest Service change. "In dreams begin responsibility," wrote William Butler Yeats, but here in northwest Montana's Yaak Valley on the Kootenai National Forest, from this continuous dream there seems no real waking. Our work — the Yaak Valley Forest Council's — is taking on, I think, the quality of bears in winter, beneath the deep snow. More snow is almost always coming, and one dream leads to another.

We're a small grassroots group — tiny, really — and have been battling the Forest Service in court. I have been here a long time, and have seen this before. A generation ago, when then-Senator Conrad Burns was chair of the Senate Appropriations Committee, projects on the Kootenai began being put forth so egregious and damaging to struggling grizzly-bear recovery efforts that the proposals were certain to lose; and they did. Almost as if the Forest Service were daring plaintiffs to sue — hoping they might get lucky and sneak one through — but also knowing that, after enough losses and enough wasted taxpayer money trying to defend the indefensible, their friends in Congress would claim to have a reason to waive environmental regulations. To make it even harder to recover grizzly bears in this, a population identified by the U.S. Fish and Wildlife Service as the "least resilient" in the country. Now the Forest Service is doing it again.

We used to help get the cut out on the Kootenai. I regret that now. We supported thinning and prescribed burns. We secured one of the first stewardship pilots in the country, where dollars would be returned to local restoration projects. But it turned out that "habitat restoration" often meant big clear-cuts. It seems the Forest Service needed more white-tailed deer — never mind the chronic wasting disease creeping north — but fewer grizzlies, wolves, wolverines ... more white-tails.

Then the Kootenai leadership went really off the rails. For 32 years the Forest Service had opposed routing a high-volume through-hiker trail — the Pacific Northwest Trail (PNT) — through the Yaak's handful of tiny alpine areas for reasons of cost but also to prevent negative effects on the struggling grizzly population. But the trail was authorized, if not the final route, via one paragraph sponsored by a through-hikers' club and attached to an omnibus bill. We voiced our concern to our local foresters (who weren't even aware of the trail) and were told, repeatedly, it was no worry, that bears and hikers get along fine. Seven years later, we had to go to court just to get the agency to draft a plan for managing the ill-placed trail. The plan is, as you might guess, insufficient to the task.

Idealists and dreamers can have fierce integrity and still

be naïve. There was a supervisor on the Kootenai a while back — I forget his name, the agency cycles through them pretty regularly. This particular forest supervisor, when we finally went to court about the 1,200-mile PNT being 11 years out of compliance and insufficiently monitored, threatened to withhold a memorandum of understanding (MOU) for our group to continue doing restoration work on public land that his agency had damaged.

Our restoration MOU was a sweetheart deal for the Forest Service: they could keep logging hard and we would repair the damage. They could apply the money saved elsewhere; we went out and raised the necessary funds. We were naïve back then; they wouldn't really put their petty grievances — annoyed that we were illuminating their lawbreaking — over what was best for the land, would they?

I know, it sounds stupid. But the current Kootenai supervisor made good on the previous one's threat. It was even shadier than you might expect. At a public meet-and-greet in town, the supervisor and regional forester told our conservation director they wanted to collaborate. The next week the new supervisor refused to sign the MOU. (This was the same ranger who ignored our invitation to meet when he was first hired and who was overheard in the local newspaper office telling a reporter that the agency couldn't work with us, that we would stop anything in the Yaak). To date, they've stiffed us for $60,000 of unutilized restoration monies. But we keep monitoring, and restoring private lands.

The thing the agency always gets wrong about the Kootenai is they send people who think they don't have any accountability, that they are here for only one thing — to get the cut out, not to recover grizzlies or old growth.

I've long disagreed with the cultural shorthand of Darwin's quick visit to the Galapagos being Cliff's Noted as "survival of the fittest." Survival, much less prosperity, was and is to a large degree survival of the luckiest. Similarly, Nietzsche's bold talk — that which does not kill us makes us stronger — has always rubbed me wrong. And yet, our small group has become stronger even as Kootenai leadership tries to cut off our funding.

We tried to collaborate. We engaged on these issues for seven years before we were forced to go to court against an agency that is a serial offender. Our victories for grizzlies and old forests initially came at a financial cost; funders who had warmed to the fuzzy tale of our always collaborating dropped us cold — mid-six-figure long-term commitments vanished, risking the loss of long-ongoing scientific studies in which those funders had invested. We survived and grew thanks to the many donors who stepped in to fill the financial gaps. They understood too well the desperation of the situation and chose to no longer believe in the blind fantasy of a feel-good aw-shucks Forest Service interested in everyone's opinions.

A loss can be a gift.

In the Yaak, we were losing grizzlies. We were losing water. We were losing big trees. We were losing soil integrity and native vegetation to swarms of hawkweed that follow summertime logging like seagulls following a threshing machine. We were losing the things we loved for an abstract idea, a thing that did not exist. We were being used. We woke up. We adapted. We applied adaptive

management to our organization. And that's when our funding went away, beginning in 2022. Organizational and ecological integrity at a cost.

When Black Ram came along, we began ground truthing. Again, seven years of data collecting and scoping and collaboration and objections — to no avail. A 60-million-board-foot timber sale targeting old and mature forests, logging and roadbuilding in old growth and in designated core grizzly habitat…. It was far and away the worst proposal I'd seen on the Kootenai in nearly 40 years of watching such sales. Nearly 3 square miles of clear-cuts — almost 1,000 acres in old and mature forests.

We had to stop collaborating and start suing to defend the ancient forests and the grizzlies. And so far — with partners — we have. But we knew also, when we went into the forest cathedral that had already been painted orange and blue for slaughter — 600-800-year-old larch trees painted to leave one tree per acre and 315-year-old spruce to be clear-cut — we had to try something different, to get people's attention. To make the idea be specific, rather than faraway and abstract. A way to bring the forest to the world — or its voice, at least.

Orange hawkweed is an invasive species notorious for over-running clear-cuts in moist areas.

A child of the '50s and '60s, I thought, "There's no need to reinvent the wheel of the resistance. We just need to get back to the basics of resistance and of celebration."

We went into the forest and cupped our ears to listen to the song of the world. It came from above and traveled down the length of the massive spars that groaned in the wind. The song of the world inhabited those creaking spars and passed all the way into the thick soft soil where we stood — the bejeweled carcasses of the ones-before — so that we felt the moist soil trembling.

The light falling on this forest — the Fort Knox of carbon storage — was a kind of music, too, hidden in the green growing wood that we could not hear but could see right in front of us and could feel with our hands, feel the sound waves in our bones. We found ourselves smiling, then laughing.

We went with a chainsaw to the edge of the proposed massacre: 754 acres of ancient inland rainforest on the Canadian border. "Fuels reduction," they called it, in a high elevation swamp, near the first place where water comes into Montana, in a primary forest where large portions — according to the agency — show no signs of ever having burned.

We cut out a whale-vertebrae-sized chunk from one of the ancient spruces that had blown over when the clear-cut road was built to the ancient stand. We rolled it out across the narrow bridge that spanned the West Fork of the Yaak River, recommended for Wild and Scenic designation.

We would have done whatever it took to defend this scientific treasure. What we chose to do was sing.

In the old forest, one seed became a tree, became the forest-to-come, the forest-that-is. One piece of one tree became a guitar, one of the finest in the world, to which the world's finest musicians are finding their way, asking if they can play songs of resistance and celebration in support of our defense of Black Ram and our dream of the nation's first Climate Refuge.

The guitar is a sacred object for our country, for our time, from a land of clear-cuts. Can one tree save a forest? Yes. Can one song save our old and mature forests? Yes.

We held our inaugural "Climate Aid: The Voice of the Forest" in Portland, Maine, home of old-forest champion Rep. Chellie Pingree. Traditional advisors from the Montana band of the Kootenai people

Letter to the Editor

Forest News:

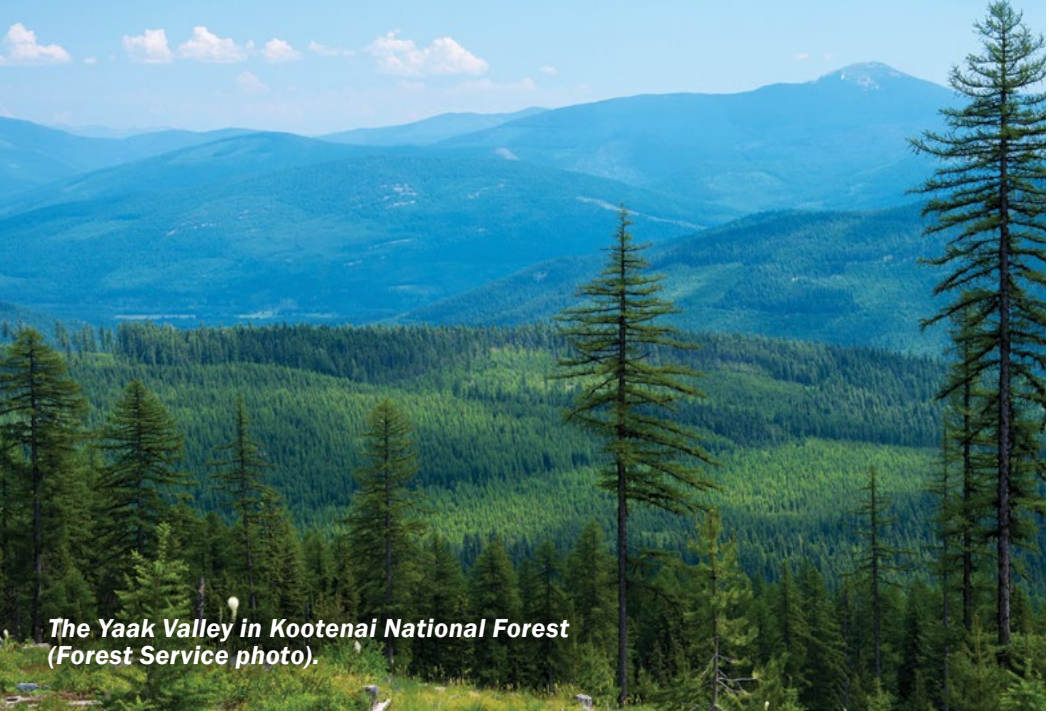
You caught my attention with the article about aerial spraying with fire retardant. I have felt for a long time that the retardant was bad. Was wrong. And not helpful to the land and the animals below. Thank you for the work you are doing to maintain, what we can, of the Clean Water Act. I know that the Supreme Court has gutted much of our environmental protections.

I have written you before saying that, years ago (1961-1976) my father, Herb Sampert, was forest manager for UC Berkeley's Blodgett Experimental/Research Forest. He also taught forestry at Berkeley before the school came under the umbrella of the College of Natural Resources — "Ecosystem Management and Forestry."

Thank you for the work that FSEEE does. In reading the Summer 2023 issue, I was wishing there would be a page for readers (like myself) to make comments or write letters to the editor. Maybe be in some issue soon.

For now, I have sent messages to my two U.S. New Mexico senators and written to several other friends to do the same.

Sincerely,
Penny Scribner



The Yaak Valley in Kootenai National Forest (Forest Service photo).

spoke and sang an ancestral song, and Maggie Rogers generously headlined. Maine musicians also supported the guitar and her songs. Terry Tempest Williams and Bill McKibben spoke, and poets Gary Lawless and Beth Ann Fennelly read their poems. Singer-songwriter Siri Saeteren created a sound design from the guitar to greet concert-goers. A local group, Protect Ancient Forests, helped with logistics. U.S. Poet Laureate Ada Limón wrote an amazing poem for the Black Ram forest and our efforts to designate it as a Climate Refuge.

In this spirit of celebration that the guitar is teaching us, we dream of a "Curtain of Green," to crib from Eudora Welty, along the northern tier of the United States — a series of loosely-linked protected carbon and climate refuges.

We dream of scholarships for a new generation of independent grizzly biologists.

We dream of scholarships for a new generation of forest attorneys.

We dream of a Forest Service that no longer wears the brown uniform of a once-honorable tradition gone corrupt. They are losing steadily in court not because they don't understand the law, but because they refuse to follow it.

We dream of a Forest Service that not only no longer paints trees in a forest before the Record of Decision is signed, but instead never paints them to begin with — no more garish blue and orange signatures of their folly left behind after they lose in court.

Our advocacy flows through one guitar, made from a tree that grew up near a black-water pond bulldozed to make a road to the edge of the forest. A tree from whose crown eagles could see, for centuries, the shimmering waters of the West Fork of the Yaak River as it rushed down from Canada.

We dream of the Glacier-Northern Continental Divide ecosystem of grizzlies rejoining the Yaak Valley.

We dream of Yaak to Yellowstone but also of Glacier to the Cascades.

It took seven years, but with a lot of help, we stopped the clear-cut right at the old forest's edge. After the court decision, we went back into the old forest, stood in its cool green shade, and stared out at the artificial white haze, heat and wind-stirred dust devils of the clear-cut.

They had gashed the old forest with a so-called fire line, a logging road, and for several years the old forest at Black Ram had been bleeding out, but we dreamed of the forest healing itself, of aspen revegetating the perimeter, where dewatering was occurring. Already we can hear the flutter of the aspen's leaves.

We can hear the piano sound of their gold leaves in autumn landing on one another. We can hear the first snowfall sifting down through their bare branches. We can hear the moose splashing in the black-water pond that is trying to come back, that can come back.

Life as an activist on the Kootenai National Forest — particularly in the Yaak Valley up on the Canadian border — can be a world of funhouse mirrors in which there is no logic. Where "ecosystem health" means clear-cuts and weeds where once prospered majestic old growth; where "resilience" means replacing old growth with pine plantations that face an 80-90% chance of failure.

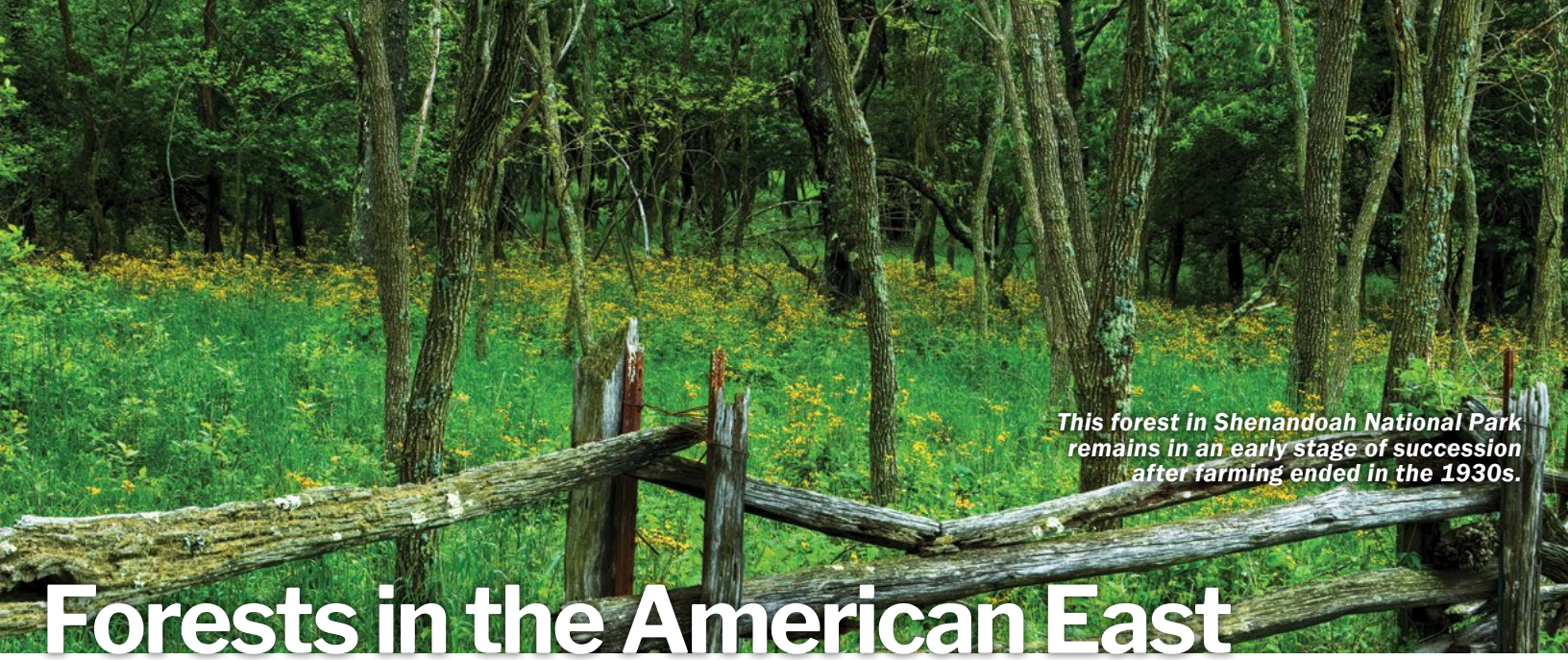
If ever there was a national forest deserving of having its chainsaws taken away, it is the Kootenai. If ever there was a place where the Department of Interior needed to step in to focus on grizzly recovery, it's here.

Mist and clouds roll over the low mountaintops in tatters and wisps, and whether like dreams shredding or dreams assembling, it is sometimes hard to say. It is a hidden forest, in the far northwest corner of Montana, and while much of its power comes from being hidden, so too is this sometimes a vulnerability.

This is the place the ice left last. It's the place that stores the most carbon.

Things are broken on the Kootenai: for grizzlies and for forests. We're looking for answers. And we're finding that they have been here all along — or for at least the last thousand years — and that what we need to do now is listen.

Rick Bass is a writer and environmental activist. He won The 2016 Story Prize for *For a Little While*, a collection of stories. He was also the recipient of a PEN/Nelson Algren Award Special Citation for fiction and a National Endowment for the Arts fellowship.



This forest in Shenandoah National Park remains in an early stage of succession after farming ended in the 1930s.

Forests in the American East

Part 2: A Plague of Early Successional Habitat

by Andy Kerr

Shedding light on a conspiracy of self-interested timber companies, misguided public land foresters, misinformed wildlife biologists, and Kool-Aid-drinking conservationists.

There is a conspiracy to keep forests in the American East forever young, or nonexistent, driven by corporate greed, bureaucratic self-interest, and good — but misguided — intentions. It involves timber companies, game bird hunters, deer hunters, state wildlife agency managers, Forest Service land managers, and even conservation organizations. All these interests (well, maybe not Big Timber) suffer from shifting baseline syndrome, described in Part 1 of this series. For different reasons, these partners have joined forces to log and burn any recovering forest in the American East back to its early successional habitat stage.

This second part of the series sheds light on a conspiracy of self-interested timber companies, misguided public land foresters, misinformed wildlife biologists, and Kool-Aid-drinking conservationists. For Part 2 in particular, I am greatly indebted to the authors of the instant classic scientific paper "Forest-Clearing to Create Early-Successional Habitats: Questionable Benefits, Significant Costs" (Kellett et al. 2023). Almost every fact asserted herein generally comes from their scientific tour de force. The authors detail the magnificent original forests of New England, the mid-Atlantic states, and the upper Great Lakes states; continue with what those forests have been reduced to today; then detail a conspiracy against real and old forests; and conclude with a vision of how to recover much of the carbon-storage and -sequestration, biodiversity, watershed, and social benefits that have been lost. Here we'll recap the first three of those topics, and Part 3 will address the fourth.

FIRST, SOME TERMINOLOGY

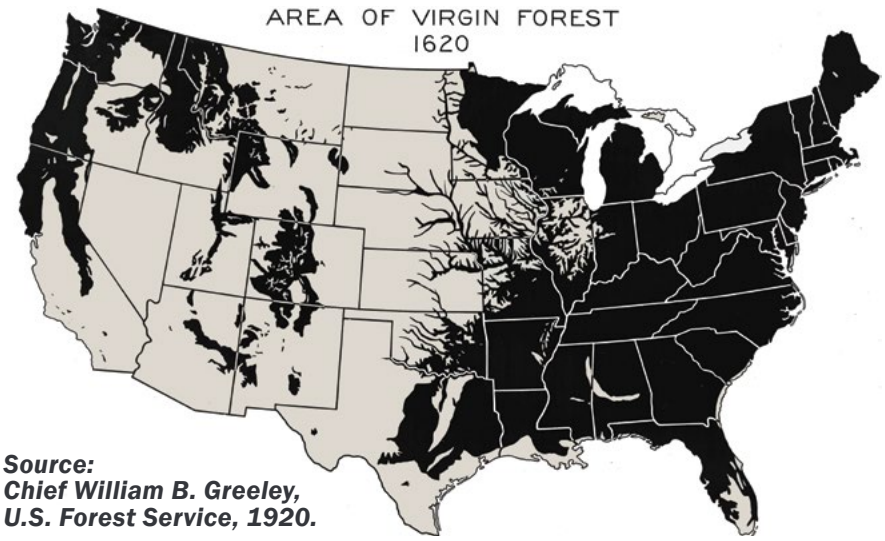
To better understand what's at stake in the forests of the American East, we need to define some terms.

A *primary* forest has never been logged and is likely to be old-growth forest because such is the normal case.

An *old-growth* forest could have previously been logged but has gotten old enough to acquire the complex structure, composition, and function characteristic of old forests. In the American East there is an infinitesimal amount of primary forest and only slightly more old-growth forest. Today, a mature Eastern forest is one that has — in all likelihood — been logged at least once. Most mature forests are on public lands, either national or state parks or forests. In the American East, young forests abound, a result of logging on private, state, and federal lands.

The state of forest development that precedes a young forest is early successional habitat (ESH) or preforest. While very abundant, ESH is often a very simple forest, with fewer species and less biological diversity than a complex ESH that occurs after a stand-replacing or stand-opening event. Before the European invasion in the American East, forests that were

naturally regenerating after a stand-replacing event ranged from 1 to 10 percent of the land at any particular time. Originally, aka 1620, ESH was rather rare, covering far less than 10 percent of the land area. Such preforest was also complex in structure, composition, and function. Today's ESH is quite excessively abundant and simplistic in structure, composition, and function — not to mention the industrial variant on ESH — an imposed monoculture more akin to a cornfield than a forest.



Source:
Chief William B. Greeley, U.S. Forest Service, 1920.

IN THE "BEGINNING": FORESTS, FORESTS, EVERYWHERE

Before the European invasion, most of the land in the Northeast was forested, and most of those forests (up to 90 percent) were old-growth forests. These vast forests were primary forests. Old growth made up 50-60 percent of the forests on the Upper Great Lakes region and 40-50 percent in the Southern Great Lakes region.

Such old-growth forests were very long-lived and full of carbon and biodiversity. Large temporary disturbances to the old growth came mainly from wind and ice storms and sometimes fire. Stand-replacing events, common to forests in the American West, were relatively rare. Most forests in the American East were older than any of the trees within them.

Anywhere from 1 to 4.5 percent of Northeast forests naturally consisted of ESH — relatively small, permanent and temporary openings in the otherwise continuous forest canopy. Kellett et al. note that Native peoples' overall impact on the vast Eastern forests was minimal to none.

INVASION OF THE EUROPEANS: MASSIVE DEFORESTATION

As soon as the Europeans arrived in North America, the loss of forests began. Between 1630 and 2017 in the American East, 41 percent of the original primary forest was permanently converted to cities, farms, and other human infrastructure. (In comparison, forest cover in the American West declined 7 percent between 1630 and 2017.) Kellett et al. found that, by the height of deforestation (1850-80), 30% of northern New England and 40-50% of southern New England had been cleared; by 1920 more than 90% of the Upper Great Lakes region was cutover.

As the forest changed from old growth to young or no forest (grazing and crop land) — and hunting increased — many common species of wildlife were lost. Wolves, mountain lions, turkeys, moose, deer, and passenger pigeons declined dramatically, sometimes to extinction. At the same time, as old-growth forest gave way to farms, several wildlife species that were originally uncommon became very common. Species including, but not limited to, the bobolink, eastern meadowlark, gold-winged warbler, yellow-breasted chat, and New England cottontail all dramatically expanded both their ranges and their numbers.

TODAY'S "FORESTS": LESS QUANTITY, VERY LOW QUALITY

Big Timber likes to brag that there is more forestland today than in 1900 and that there are more trees in those forests. While not untrue, this claim is misleading. All forests are not created equal. While forest cover in the American East has stabilized in quantity, quality is quite another matter. Once primarily old-growth forests, the remaining forestlands in the American East are now mostly woodlands that have been logged several times. The American East is nearly devoid of old-growth forests. As Kellett et al. note: "In the Northeast, forests older than 150 years of age cover only about 0.3% of New England and 0.2% of the Mid-Atlantic region…. In the Upper Great Lakes region, only about 1.9% of the currently forested area remains as primary forest that was never logged…. For all forest types, about 5.2% is old growth compared with 68% before European settlement."

The Conspiracy: Based on Species of Concern That Should Not Be

In a world of little good news, it's nice to know that on the whole, forests in the American East are increasing both in area and age. As these forests return toward what was once the norm, certain bird and other species are in serious decline — if your reference point is the 1960s. Remember shifting baseline syndrome? If your reference point is, say, 1630, these "species of concern" are not really species of concern.

State wildlife action plans (SWAPs, necessary for federal grants) for northeastern and Great Lakes states have identified species of conservation concern that require early successional habitat. These species include, but are not limited to, bobolink, eastern meadowlark, golden-winged warbler, yellow-breasted chat, and New England cottontail. Recall that these are the species whose populations surged in the wake of massive deforestation. In this narrative, the forests of

the American East must be kept puny to support faux species of concern and the interests of several pitiful parties to the conspiracy.

Pity the poor timber companies. The public is increasingly intolerant of clear-cutting, especially on public land, which has been bread and butter to these companies. The companies need to convince the public that logging is good for wildlife.

Pity aging game bird hunters. There are far fewer ruffed grouse and American woodcock than when they first hunted. Not only were there more birds to shoot then, but there was also more open habitat in which to see and shoot. Aging forests close their canopies, which isn't good if you want to shoot grouse and woodcock.

Pity the poor deer hunters. If there is less ESH, there will be fewer deer to shoot. Not that there is any dearth of deer to dispatch! Due to a paucity of large predators in the American East, deer numbers are far in excess of carrying capacity and a prime vector for ticks that carry Lyme disease.

Pity the poor state wildlife agency managers. While they may personally care about species not hunted and/or species dependent upon older forests, that's not where the money is for their agency. Much of their budget comes from state hunting licenses and tags or from federal excise taxes on guns, ammunition, and fishing gear. For the sake of the agency budget, which is severely weighted toward game species that can be most easily produced in early successional habitat, state wildlife agency managers advise private landowners to log their lands for the benefit of these game species rather than suggest not logging them for the benefit of species dependent upon older forests (not to mention the benefit to the climate).

Pity the poor Forest Service land managers. They are stuck in the past, thinking that foresters improve forests by logging them and that timber production is an important use of national forests in the American East. Most Americans don't like clear-cutting, so the Forest Service land managers gussy it up by calling clear-cuts "early successional habitat." Unfortunately, Congress has given them plenty of money for such mischief.

Pity the poor conservationists volunteering with or working for a conservation organization. The birds they have long noticed are becoming less noticeable. Urbanization is eliminating any habitat wholesale. Can existing habitat be "improved"? Rather than fight for what is hard — the restoration of old-growth forests — too many conservationists fight for what is easy — favoring logging in the name of species that are not in trouble.

The face of this conspiracy of pitiful parties is the Young Forest Project ("Growing Wildlife Habitat Together"). Kellett et al. note that the website for this project was inaugurated in 2012 to persuade target audiences and within a decade had recruited more than a hundred partners. (You can download a list of Young Forest Initiative Partners.) These include timber companies like Weyerhaeuser; federal and state forest agencies, including the New York Department of Environmental Conservation and the U.S. Forest Service; federal and state wildlife agencies, including the U.S. Fish and Wildlife Service and the Connecticut Department of Energy and Environmental Protection; and sportsmen's groups such as the Ruffed Grouse Society/American Woodcock Society and the National Wild Turkey Federation. Most troubling is the participation of certain conservation organizations, including but not limited to the American Bird Conservancy and several state Audubon groups (New York, Connecticut, Vermont, and New Jersey).

According to Kellett et al., "All of these partners benefit from forest-clearing through increased profits from timber sales, larger agency budgets, more staff, direct payments for creating young forest habitat, or elevated populations of desired game species." Conservationists don't care much about game species but care too much about other wildlife species that are less numerous than in recent history but are still above historical levels.

The Young Forest Project seems to suffer from shifting baseline syndrome, as do most of its partners. To hear the Young Forest Project tell it:

> ***Forest Doesn't Stay Young Forever***
> *In most cases, young forest lasts only 10 to 20 years before it becomes older forest, often less useful to wildlife.*

Branding a forest that couldn't legally drink if it were a human as an "older forest" is quite the shifted baseline. It seems we have a case of not being able to see the forest for the stumps. Actually, it's more a case of not being able to see the older forest because it hardly exists to be seen. The Young Forest Project says, "Today we have more than enough older forest in our region," and also, "Yet recent conservation efforts in the East have focused mainly on preserving older forest, of which many thousands of acres have been protected."

Buckle up, people. It's time to add three zeros to the conversation and talk not about "many thousands" but about many millions of acres that must be protected — to again be old-growth forests.

This is the second of a three-part examination of forests in the American East. Part 3 will suggest ways to partially — but significantly — bring back the magnificent old-growth forests that have long been lost.

Andy Kerr is the czar of The Larch Company (www.andykerr.net) and consults on environmental and conservation issues. The Larch Company is a for-profit non-membership conservation organization that represents the interests of humans yet born and species that cannot talk.

Briefly

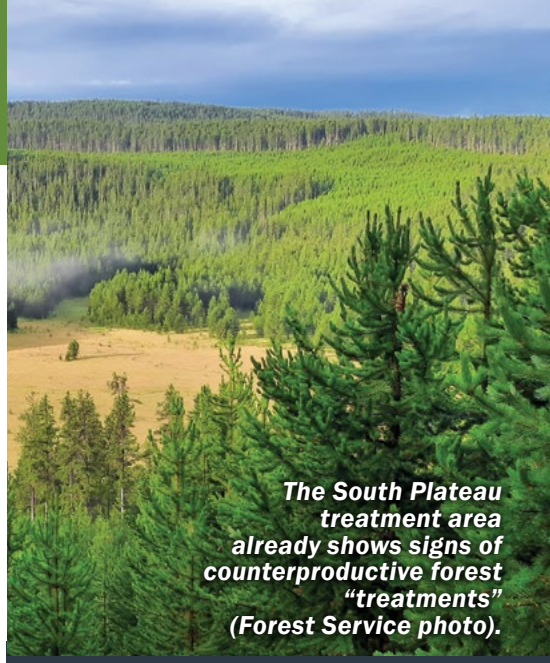
Forest Service Approves Logging Near Yellowstone

In August, the Custer-Gallatin National Forest issued a Finding of No Significant Impact approving the South Plateau Landscape Area Treatment Project.

The 16,462-acre logging project (to "improve forest resilience") includes 5,531 acres of clear-cutting, 6,593 additional acres of commercial tree-cutting, and 56 miles of road construction near Yellowstone National Park — critical habitat for whitebark pine, grizzly bears, Canada lynx, and other important species.

The Forest Service decision prompted multiple conservation groups to file a lawsuit. Their filing criticizes the decision for, among other things, increasing stressors on several important wildlife species and a lack of clear parameters or guidelines for harvesting timber over a 20-year period.

"The Forest Service needs to drop the South Plateau project and quit clear-cutting old-growth forests," said Mike Garrity, the executive director of the Alliance for the Wild Rockies. "Especially clear-cutting and bulldozing new logging roads in grizzly habitat on the border of Yellowstone National Park."



The South Plateau treatment area already shows signs of counterproductive forest "treatments" (Forest Service photo).

Federal Wildfire Commission Issues Report

The 2021 Infrastructure Investment and Jobs Act established the Wildland Fire Mitigation and Management Commission and tasked the Commission with creating policy recommendations to address "the wildfire crisis." In September, the Commission released a report with 148 recommendations.

The first recommendation is a no-brainer: "Establish a Community Wildfire Risk Reduction Program … to proactively address wildfire risk reduction actions and increase ignition resistance of the built environment." Virtually everyone with expertise on the topic agrees on this point.

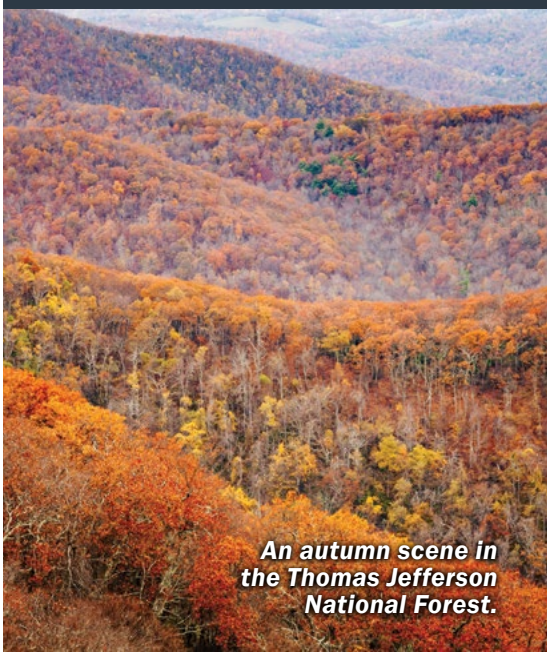
However, the report promotes continued landscape-scale forest-thinning as an effective tactic "in reducing the risk of uncharacteristically severe wildfire" and cites a 2021 study by Jain et al. 2021 in support of this claim. However, as noted in the Summer 2023 edition of *Forest News*, the study actually raises significant doubts about the effectiveness of landscape-scale fuel treatments and cites a lack of empirical evidence to justify these logging projects.

Supreme Court Approves Mountain Valley Pipeline

On May 15, the Forest Service issued its Record of Decision to allow the construction of the 42-inch-diameter 300-mile-long Mountain Valley Pipeline across a swath of Thomas Jefferson National Forest. On July 27, the Supreme Court issued an unsigned order lifting orders issued by the U.S. 4th Circuit Court of Appeals that had put construction on hold in the Forest.

If completed, the pipeline would transport fracked natural gas from northwestern West Virginia through the Forest to southern Virginia. The case before the Supreme Court focused on legislation enacted to expedite completion of the pipeline.

The Fiscal Responsibility Act, passed to raise the debt ceiling, included a provision ordering federal agencies to issue all permits needed to complete the pipeline and stripped federal courts of the power to review challenges to those permits. These provisions were included as concessions to Sen. Joe Manchin, the West Virginia Democrat who is a staunch supporter of the pipeline.



An autumn scene in the Thomas Jefferson National Forest.

A grove of American elm trees in New York City's Central Park is likely one of the largest remaining.

Dispatch

Restoring the American Elm

Like the American chestnut, the American elm is threatened by an invasive species, but the future for the elms looks a bit brighter than the fate of the chestnuts. For elms the threat comes from Dutch Elm Disease, introduced in the 1930s, and researchers are making real progress with naturally disease-resistant trees.

Once common across eastern North America, American elms can still be found in forests, but because they soon succumb to Dutch Elm Disease, they tend to be much smaller and, therefore, no longer play an important ecological role. However, a small number of large American elm trees somehow remained healthy in the aftermath of the disease. Researchers are taking cuttings from these survivors, rooting the cuttings, and testing them for resistance.

Once enough of these clones are identified as resistant parent trees, they will be used to establish orchards for seed-stock production. The seeds will then supply nurseries that will grow seedlings to be planted in appropriate forests. In particular, resistant elm trees offer promise as a beneficial, indigenous option for ash-dominated floodplains hard hit by emerald ash borer. Since Dutch Elm Disease spreads through roots, providing some distance between the new elms will limit the potential spread of the disease.

The Forest Service Northern Research Station is leading the effort to identify disease-resistant elms with support from state, private, and Tribal forestry programs. The Chippewa, Superior, Chequamegon-Nicolet, Huron-Manistee and Ottawa national forests are identifying and collecting shoots from survivor elms and providing testing sites.

The Northern Research Station is creating clones of the upper Midwest survivor elms through softwood cuttings. In the coming years these clones will be planted and tested at sites in Oconto River Seed Orchard in Wisconsin, connected to Chequamegon-Nicolet National Forest, and at a historic nursery site on the Huron-Manistee National Forests. The entire process takes about 15-20 years to complete.

"It is exciting to see us finally capturing clones of these magnificent trees. The progress we've made in the last two years would not have been possible without the cooperation of the many, many partners," said Linda Haugen, plant pathologist with the State, Private, and Tribal Forestry Field Office in St. Paul, Minnesota. Haugen is coordinating capturing clones of survivor elms from northern cold-hardiness zones and the Upper Mississippi watershed.

"We need to develop populations of American elm that are locally adapted and genetically diverse. We hope to work with partners to establish similar programs throughout the range of the species," said Cornelia "Leila" Pinchot, a Northern Research Station research ecologist who co-leads the project with Kathleen Knight.

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Call Your Senators

Members of Congress have introduced Senate Bill 796 to exempt retardant pollution from the Clean Water Act. If enacted, this legislation would allow the Forest Service to continue to dump cadmium-contaminated chemicals into pristine waterways with no oversight.

PLEASE CALL and ask your senators to vote NO on Senate Bill 796.

Shasta-Trinity National Forest has pristine waters, but the Forest Service dumped 75,554 gallons of aerial fire retardant there in 2022.

The Congressional switchboard phone number is 202-224-3121, and it can connect you to your senators' offices. Thank you for helping to preserve our vital resources!