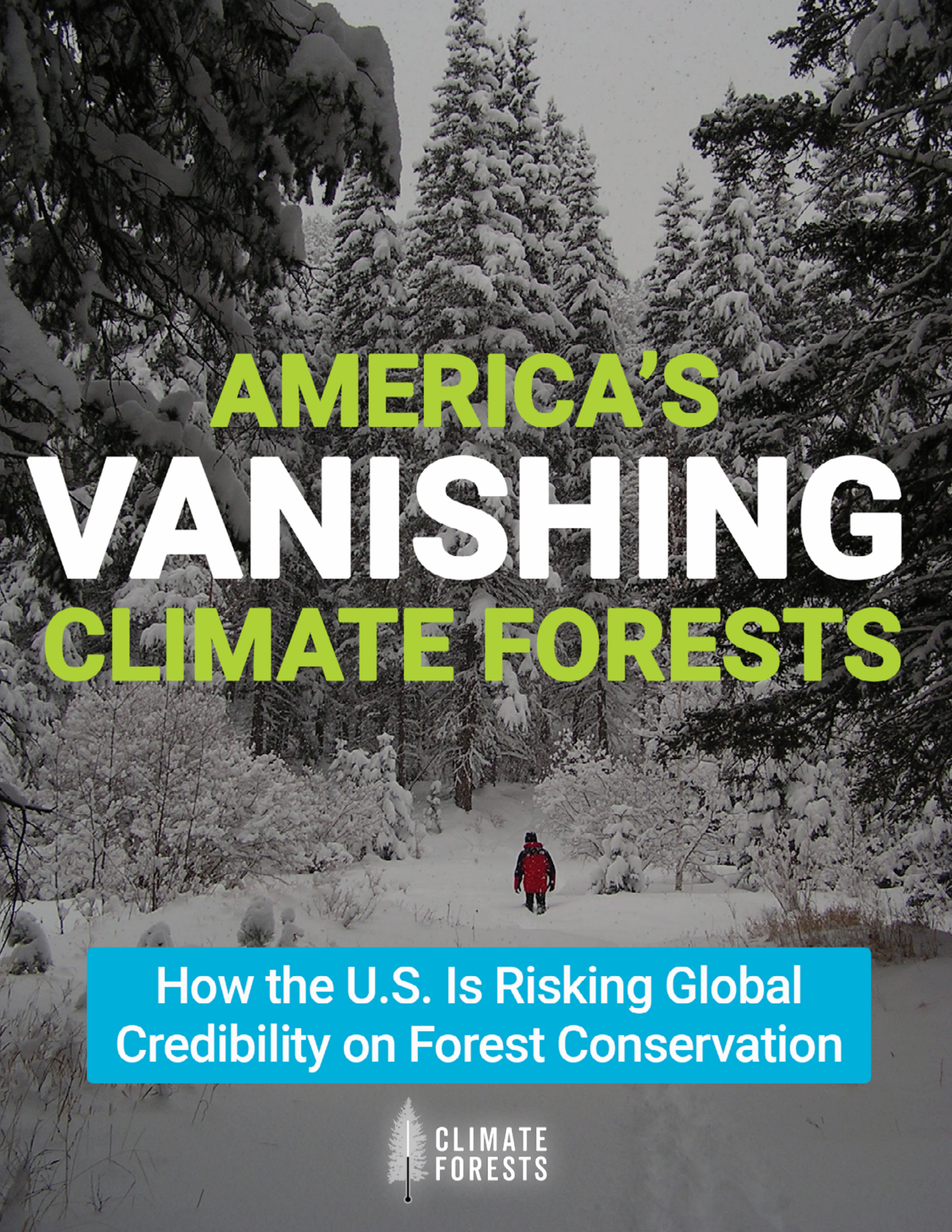


AMERICA'S VANISHING CLIMATE FORESTS

How the U.S. Is Risking Global Credibility on Forest Conservation

CLIMATE FORESTS

America's Vanishing Climate Forests:

How the U.S. Is Risking Global Credibility on Forest Conservation

This report was prepared for the Climate Forests coalition, which works to protect mature and old-growth trees and forests from logging across America's public lands. Contributing organizations to the report include Alliance for the Wild Rockies, Cascadia Wildlands, Center for Biological Diversity, Environment America, Earthjustice, Friends of the Bitterroot, Friends of the Clearwater, Klamath Forest Alliance, Klamath-Siskiyou Wildlands Center, Kentucky Heartwood, Oregon Wild, Natural Resources Defense Council, Norbeck Society, Sierra Club, Speak for the Trees, Southeast Alaska Conservation Council, Southern Environmental Law Center, Standing Trees, The Larch Company, Wild Heritage.

Cover photo of spruce stand on the Black Hills National Forest by Norbeck Society

CLIMATE FORESTS

EXECUTIVE SUMMARY

America's Vanishing Climate Forests

How the U.S. Is Risking Global Credibility on Forest Conservation

November 2022

At last year's COP26 in Scotland, the United States and more than 140 other countries made an ambitious commitment to reverse global deforestation by 2030 to help combat climate change. President Joe Biden declared that the United States would "lead by our example at home" to conserve and restore forest carbon sinks.

At this year's COP27 global climate summit in Egypt, Biden takes the world stage as U.S. forest-management agencies are failing to live up to his promise. They're logging carbon-rich, mature and old-growth trees and forests on federally owned lands, undercutting U.S. credibility as a climate leader.

This report highlights 12 examples of government-run logging projects that include cutting down mature and old-growth forests and trees on federal lands, eliminating vast amounts of naturally stored carbon and ongoing sequestration, and degrading biodiversity reservoirs as the climate and wildlife extinction crises worsen.

On Biden's watch, federal agencies plan to allow timber companies to cut down huge swaths of mature spruce in South Dakota's Black Hills, clearcut mature forests along the Appalachian Trail in West Virginia and Kentucky, and wipe out large tree habitat for endangered wildlife in Oregon, Idaho and Montana.

12 Logging Projects Targeting Mature and Old Growth in Federal Forests

Project Name	State	Description	Status
Black Hills National Forest *Spruce Vegetation Management Project*	South Dakota	25,000 acres, or nearly 40 square miles, eliminating virtually all spruce, targeting the largest and oldest trees.	Forest Service reviewing public comments.
Daniel Boone National Forest: *South Red Bird Wildlife Enhancement Project*	Kentucky	More than 3,800 acres of clearcuts, nearly 25% of forests older than 100 years; 100 miles of logging roads.	Forest Service approval, January 2021. Kentucky Heartwood sued in September 2022.
Monongahela National Forest: *Upper Cheat River Project*	West Virginia	Clearcut 3,463 acres of mature hardwood forest, two-thirds of stands more than 100 years old.	Forest Service preliminary approval, August 2022.
Tongass National Forest: *Wrangell Island Project*	Alaska	430 acres of old growth in first sale, up to 7 million board feet of old-growth timber through multiple sales.	Forest Service approval, 2017. First timber sale issued in 2022, with more to follow.
Klamath National Forest: *South Fork Project*	California	2,455 acres, including mature and old-growth trees.	Scoping initiated in 2020; Forest Service put project on hold.
Nez Perce-Clearwater National Forest: *Dead Laundry*	Idaho	3,838 acres of clearcuts of mature trees, some greater than 40 football fields; more than 200 miles of logging roads.	Forest Service seeking waiver to clearcut larger than 40 acres. Waiver and project approval expected in 2023.

Nantahala National Forest: *Southside Project*	North Carolina	317 acres including rare old growth, over 80% of the volume will be cut.	Forest Service approval, 2018; first sale issued, August 2022.
Green Mountain National Forest: *Early Successional Habitat Creation Project*	Vermont	14,270 acres, more than 130 stands older than 100 years are targeted; 25 miles of logging roads.	Forest Service approval, 2019. Timber sales will be issued for the next 10 years.
Custer Gallatin National Forest: *South Plateau Project*	Montana	12,100 acres of mature lodgepole pine; up to 57 miles of logging roads in grizzly bear habitat.	Forest Service issued revised environmental assessment, October 2022.
Bureau of Land Management, Medford District: *Evans Creek Project*	Oregon	1,131 acres including trees up to 200 years old, declassifying 732 acres of threatened northern spotted owl habitat to log it.	Forest Service approval, 2019, logging mostly done summer 2022. In September 2022 a federal judge ruled Evans Creek and Poor Windy sales illegally harmed northern spotted owl habitat and halted the projects.
Bureau of Land Management, Roseburg District: *42 Divide Stand Management*	Oregon	5,280 acres, including clearcutting and commercial thinning on 1,728 acres. Trees up to 200 years old are targeted for logging.	BLM announced it was developing an environmental assessment, November 2021.
Bitterroot National Forest: *Bitterroot Front Project*	Montana	54,883 acres of potential commercial logging of mature and old growth, including 13,245 acres identified as roadless.	Forest Service's environmental analysis is expected in late 2022.

Our report Worth More Standing, published in July, highlighted 10 urgent logging threats to mature and old-growth trees and forests on federal lands. Yet federal agencies have not corrected course, and instead are bulldozing full steam ahead. The only exceptions are two projects where a judge found agencies were illegally harming an imperiled species.

With the world falling behind the forest-conservation targets set at COP26, it is even more critical that the U.S. Forest Service and Bureau of Land Management fulfill Biden's pledge to lead by example. That cannot be done without ending the cutting and removal of mature trees from federal forests.

As president, Biden has authority over 230 million acres of forests, one-third of the forested land in the United States and most of the country's mature and older trees. U.S. forests sequester 10% of our carbon emissions every year, safely storing it in their trunks, branches and soil. Mature forests and trees are doing the bulk of this work across federal lands. They can do much more if they're allowed to keep growing.

Biden recognized the vital role forests play with his executive order on Earth Day 2022, committing the United States to ending natural forest loss here and abroad and taking "ambitious action to conserve and restore natural ecosystems, including those that serve as critical carbon sinks." And on federal lands, his executive order directed federal agencies to conserve mature and old-growth forests to enhance carbon and biodiversity benefits.

Logging projects undermine promise to preserve old forests

The greatest avoidable threat to older forests and trees is federally authorized logging, which continues even as Biden calls for protecting forests at home and abroad.

The logging projects spotlighted in these two reports are part of a widespread pattern of federal forest mismanagement that prioritizes commodity timber production and routinely sidesteps science to turn big, old trees into lumber and wood chips. These 22 projects alone target nearly 370,000 acres of mature and old-growth forests and trees. Biden's executive order hasn't been enough to save them. Additional urgent action is needed to stop timber sales targeting these majestic old forests.

Old forests are our best natural, low-cost climate solution. No technology can match them for atmospheric carbon removal and storage at scale. Protecting them from logging also protects clean water, clean air, wildlife habitat, biodiversity and recreation. Forests are where we can find peace and solitude. Old forests have taken many decades, sometimes centuries, to become the sheltering, wonderous places that people, plants and animals rely on.

Some of the work of federal agencies — such as increasing prescribed and managed fire, cutting small trees near communities and structures, decommissioning roads and upgrading culverts, and thinning plantations — is helping restore ecological integrity and may reduce wildfire risk. Our reports focus only on the portions of these projects that target mature and old-growth trees and stands, which science shows are generally fire-resistant, carbon-storing giants.

How forest agencies can keep Biden's promise

The Biden administration must adopt strong, enforceable, administrative rules protecting mature and old-growth forests and trees across federal lands from logging that would stop these 22 sales and others like them. The logging of mature and old-growth trees is harmful ecologically, unnecessary for timber supply, and at odds with carbon sequestration and biodiversity.

The president's international commitments and executive orders are being undermined by these federal timber projects. Nothing short of binding regulations that permanently end mature and old-growth logging on U.S. public lands will honor these bold promises and retain the country's climate credibility.

Here are some of the worst logging projects right now that include cutting down mature and old-growth forests and trees on federal lands:

BLACK HILLS NATIONAL FOREST, SOUTH DAKOTA | SPRUCE VEGETATION MANAGEMENT PROJECT

WHY THIS FOREST IS SPECIAL • The Black Hills of South Dakota, referred to as an "island in the plains," rise several thousand feet above the great plains with granite peaks reaching to 7,200 feet. Two-thirds of the hills comprise the Black Hills National Forest, which straddles the border between South Dakota and Wyoming. It is the southernmost occurrence of white spruce, which has evolved into a unique variant, Black Hills spruce, found nowhere else on the planet. It is South Dakota's state tree. Mountain lions roam the landscape while eagles, bats and hawks take to the sky and wildflowers grace the landscape.

SPRUCE VEGETATION MANAGEMENT PROJECT •The project will remove virtually all spruce trees — targeting the largest and oldest spruce — across 25,000 acres, or nearly 40 square miles. Such extensive logging, including clearcuts more than 40 football fields or larger in size, will likely require miles of new roads. With no size or age limit, the project will liquidate roughly half of the spruce habitat on the Black Hills National Forest, which many wildlife and plant species rely on. After the large, old spruce is logged, the Forest Service will then log the small spruce.

CARBON STORAGE AND BIODIVERSITY • Black Hills spruce are interspersed with wetlands and riparian areas, as well as aspen, birch and beaked hazelnut trees. Spruce ecosystems hold moisture and provide critical refugia in a warming climate. Commonly living up to 300 years, these trees accumulate and hold decades of stored carbon. Spruce forests on the Black Hills provide habitat for many plant and wildlife species, including northern goshawks, lady slipper orchids, red and flying squirrels, American martens, black-backed and three-toed woodpeckers, and Cooper's Rocky Mountain snails. Many of these species need these dense, continuous, moist forests to survive.

Logging would occur in spruce stands like this on the Black Hills National Forest. Photo credit: Norbeck Society

WHY THESE TREES SHOULD REMAIN STANDING • The project will destabilize and degrade intact forest, dry out these areas and make them susceptible to increased wildfires, insect outbreaks, weeds and increased carbon emissions. Most of the logging will be at ecologically important headwaters of several major waterways. The spruce forests in high-elevation headwaters and along canyon bottoms, streams and north-facing slopes keep hillsides, springs and watercourses cool. They provide shade and their complexes of plants and rotten logs hold water and create humidity. The Forest Service's proposed "buffers" will not meaningfully mitigate the damage from this logging project.

THE FUTURE OF MATURE AND OLD-GROWTH TREES IN BLACK HILLS NATIONAL FOREST • The Forest Service has targeted stands of old pine with unsustainable cutting for 15 years or more. Bowing to political pressure to increase logging, it has now turned its attention to spruce. The outdated 2005 forest plan amendment allows only 5% of the forest's pine trees to survive to become old growth, but less than 1% of pine trees in the Black Hills are designated as old growth. This logging project is one of more than 20 in the Black Hills targeting mature and old-growth trees.

PROJECT STATUS • The Forest Service initiated scoping in the first half of 2022 and is reviewing public comments.

LOCAL CONTACT: Dave Mertz, former forester, Black Hills National Forest, mertzdave1@gmail.com

DANIEL BOONE NATIONAL FOREST, KENTUCKY | SOUTH RED BIRD WILDLIFE ENHANCEMENT PROJECT

WHY THIS FOREST IS SPECIAL • The Redbird District of the Daniel Boone National Forest includes one of the wildest and most intact ecosystems in eastern Kentucky and some of the only publicly accessible lands in the area. This forest contains some of the oldest and largest living members of eastern tree species, and among the best remaining old-growth trees in the region. The Daniel Boone National Forest provides core habitat and wildlife connectivity for many southern Appalachian animals, including black bears, white-tailed deer, elk, red foxes and mink.

SOUTH RED BIRD WILDLIFE ENHANCEMENT PROJECT • This is the largest timber sale proposed in the national forest in nearly 20 years. It would clearcut more than 3,800 acres of public lands, removing 80% to 90% of the trees across 2,800 acres and nearly one-quarter of all forests more than 100 years old. These old trees are a relative rarity in the Daniel Boone. Nearly 100 miles of logging roads would be bulldozed through this watershed, including approximately 10 miles of the Redbird Crest Trail, where people now hike and find forest solitude. See this story map for more of what's at stake.

Little Flat Creek area proposed for clearcutting. Photo credit: Jim Scheff, Kentucky Heartwood

CARBON STORAGE AND BIODIVERSITY • The South Red Bird Project will log mature and old-growth trees that hold decades of stored carbon, including oaks, black walnut, hickory, maple and birch. Some of the extraordinary trees at risk are more than 150 years old. The project area includes threatened or endangered Indiana bats, northern long-eared bats, and gray bats, essential for pollinating plants and dispersing seeds. Also at risk are endangered snuffbox mussels and Kentucky arrow darters that depend on high-quality, clear streams. Goldenseal, black cohosh and ginseng herbs flourished here, but are declining because of overharvesting and habitat loss, including by logging and heavy equipment.

WHY THESE TREES SHOULD REMAIN STANDING • The proposed clearcuts will benefit common wildlife that have ample habitat across this region, while harming imperiled species that depend on mature forests. The Forest Service aims to provide commodity timber by logging some of the largest and most ecologically valuable trees, including 180 acres of rare old growth. An adjacent Forest Service logging project similar to this one resulted in four massive landslides that dumped sediment into creeks, harmed water quality, obliterated understory habitat, and facilitated the spread of invasive species.

THE FUTURE OF MATURE AND OLD-GROWTH TREES IN DANIEL BOONE NATIONAL FOREST • The 2004 forest plan concedes that old-growth trees were underrepresented in the Daniel Boone,[1] but the plan's goal allows for only 8% of the forest to survive into old growth and there are no protections for mature hardwood trees.[2] The percentage of old-growth forest falls far short of that goal. These mature and old growth trees are increasingly targeted for logging under erroneous Forest Service claims that old-growth forests are undesirable.[3]

PROJECT STATUS • The Forest Service approved the project in 2021. Kentucky Heartwood filed a lawsuit in September 2022 challenging the project's failure to disclose the environmental harm from the proposed logging.

LOCAL CONTACT: Lauren Kallmeyer, Kentucky Heartwood kentuckyheartwood@gmail.com

Stand R45 proposed for clearcutting. Photo credit: John Coleman

MONONGAHELA NATIONAL FOREST, WEST VIRGINIA | UPPER CHEAT RIVER PROJECT

WHY THIS FOREST IS SPECIAL • The nearly 1 million-acre Monongahela National Forest lies in the Allegheny Mountains of West Virginia. It includes much of the highest country in the state, including the upper reaches of the Blackwater and Cheat rivers, and several designated wilderness areas. The forest has some of the best mixed cove hardwood and oak stands in the region and provides habitat for many endemic and imperiled wildlife. It's a popular place for rock climbing, paddling, fishing, mountain biking, hiking, birding and caving.

UPPER CHEAT RIVER PROJECT • The project will clearcut 3,463 acres of mature hardwood forest and cost taxpayers $1.4 million. Two-thirds of the targeted stands are more than 100 years old, with some trees older than 200 years. Widespread logging at the start of the 20th century stripped hillsides of almost all the original old-growth forest. The Forest Service has identified only six areas of old-growth conifers on the Monongahela, totaling 335 acres, and has classified no hardwoods as old growth.

CARBON STORAGE AND BIODIVERSITY • The project area is home to many rare and imperiled species, including the recently rediscovered giant hellbender salamander, the mountain earth snake, the Indiana bat, the northern long-eared bat and the Virginia big-eared bat, all of whom rely on intact forest ecosystems. In March 2022 the federal government proposed reclassifying northern long-eared bats as endangered. The Upper Cheat River environmental assessment fails to adequately consider the harm intensive, large-tree logging will have on these bats. The bats rely on large trees for roosting and raising young within the project area. Logging of the largest and oldest trees to create openings and early seral habitat results in the largest loss of carbon stores and causes the greatest reduction in carbon sequestration. Soil degradation from intensive logging releases soil carbon stores, and the resulting runoff exacerbates flood risk and degrades aquatic habitats. The logging project also threatens Horseshoe Run, a state listed high-quality mussel and native brook trout stream.

WHY THESE TREES SHOULD REMAIN STANDING • Like much of the Monongahela, the Upper Cheat River project area is interspersed with private forest lands where industrial timber operations focus on clearcutting. This disproves the Forest Service's claims that it needs to "create openings" and "improve age class distribution." The Forest Service manages only 39% of the project area, which makes the mature forests and wildlife habitat here even more important as a buffer against the surrounding fragmentation and degradation. Much of the logging will be by helicopter because it will occur on very steep slopes. Clearcutting on steep slopes causes soil erosion and runoff. Rainfall can be torrential in this area, and watersheds are already harmed by industrial logging. Local communities surrounded by the project are frequently impacted by flooding.

THE FUTURE OF MATURE AND OLD-GROWTH TREES IN MONONGAHELA NATIONAL FOREST • Past logging has stripped nearly every old-growth tree, yet the Forest Service continues to target old trees for clearcutting. Where it does exist, old growth is limited to small, scattered patches within a larger mix of primarily 70- to 90-year-old forests, representing less than 1% of the entire forest.[4] The forest plan seeks to develop old growth only where it does not get in the way of future timber production.[5]

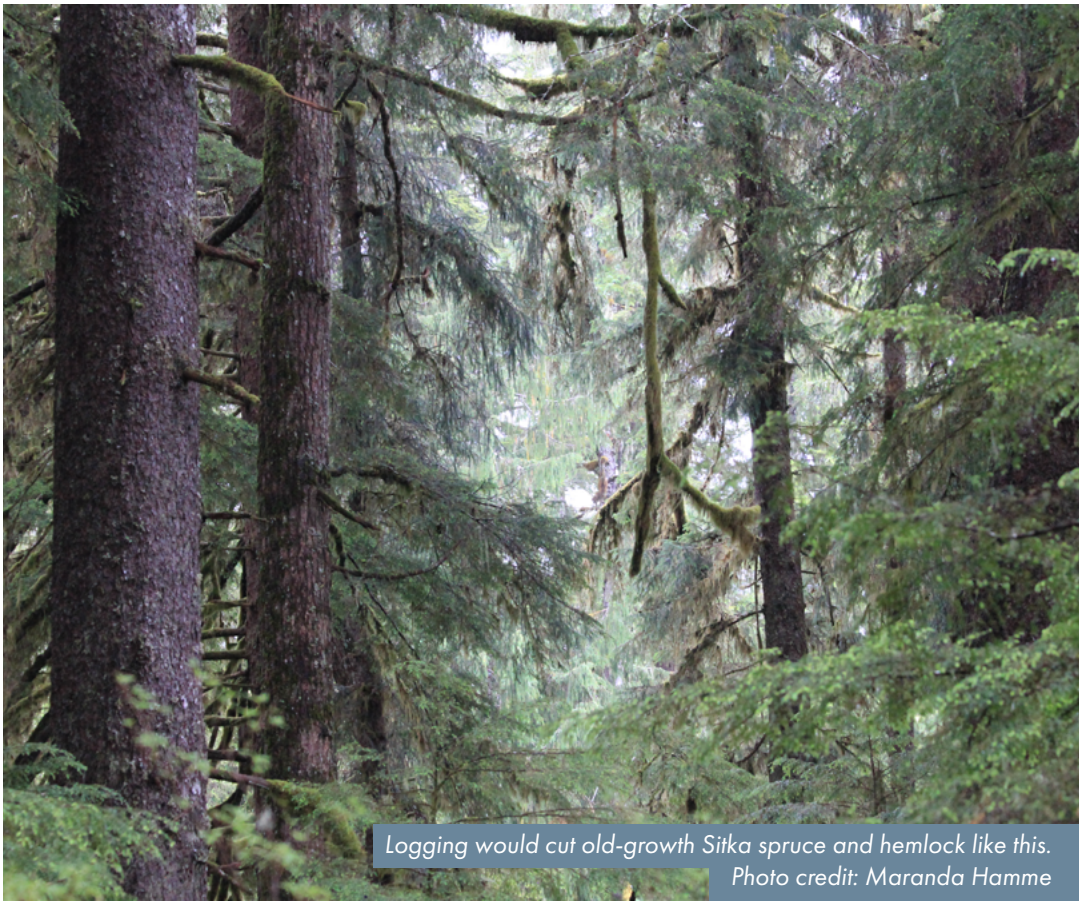
PROJECT STATUS • The Forest Service issued a draft final decision in 2022. In September 2022 a group of 48 local landowners and a local conservation organization filed objections to the project.

LOCAL CONTACT: John Coleman, Heather Lantz or Stephen Coleman, Speak for the Trees, West Virginia. Speak4Trees2@gmail.com

TONGASS NATIONAL FOREST, ALASKA | WRANGELL ISLAND PROJECT

WHY THIS FOREST IS SPECIAL • The Tongass National Forest is the largest national forest in the United States, encompassing nearly 17 million acres in southeast Alaska. It is the heart of the world's largest remaining, mostly intact temperate rainforest, abundant with a wide array of wildlife and fish, deep fjords, icefields, glaciers, islands and snowcapped mountains. One-quarter of the entire West Coast's annual commercial salmon harvest comes from the Tongass, earning it the unofficial designation "America's Salmon Forest." The Tongass still has about 5 million acres of old-growth forest, making it a carbon-storing champion.

WRANGELL ISLAND PROJECT • The project will log about 430 acres of old growth and is expected to remove up to 7 million board feet of timber through multiple sales. Wrangell Island #1 is one of several old growth sales offered in the Tongass.



Logging would cut old-growth Sitka spruce and hemlock like this. Photo credit: Maranda Hamme

CARBON STORAGE AND BIODIVERSITY • The U.S. Department of Agriculture, which oversees national forests, has explicitly recognized the Tongass' global significance as a carbon-rich forest reserve. The Tongass also hosts the highest density of brown bears in North America, as well as bald eagles, Sitka black-tailed deer, flying squirrels, Queen Charlotte goshawks, humpback whales, porpoises, seals, sea otters, sandhill cranes, hummingbirds and many other species.

WHY THESE TREES SHOULD REMAIN STANDING • Northern coastal temperate rainforests are critical regional carbon sinks.[6] Forests of the Pacific Northwest and southeast Alaska store exceptional levels of carbon and are among the most carbon dense ecosystems in the world.[7] After decades of clearcutting old growth, the Forest Service admits that the remaining amount in some regions, including areas near these timber sales, is below its own standards for supporting deer habitat and subsistence deer hunting. Bears are harmed by the density of logging roads and fragmentation of old-growth stands. Logging also harms streams that support salmon.

THE FUTURE OF MATURE AND OLD-GROWTH TREES IN TONGASS NATIONAL FOREST • The Forest Service has proposed reinstating the roadless rule on the Tongass, but the rule would not protect millions of acres of old-growth trees outside roadless areas. The Forest Service also announced a commitment to end large-scale, old-growth logging throughout the forest. Following that announcement, President Biden issued an executive order directing the agency to conserve mature and old growth forests on all federal forestlands, including the Tongass. Despite this direction the Forest Service continues to offer old-growth sales in the Tongass.

PROJECT STATUS • The Forest Service finalized the Wrangell Island Project in 2017. Environmental groups objected to the decision. In 2022 the Forest Service issued the first timber sale, offering 2.6 million board feet of old growth. The Forest Service may offer more Wrangell Island sales that could total up to 7 million board feet of old-growth logging. Additional old-growth logging is also pending elsewhere on the Tongass.

LOCAL CONTACT: Meredith Trainor, executive director, Southeast Alaska Conservation Council, meredith@seacc.org

KLAMATH NATIONAL FOREST, CALIFORNIA | SOUTH FORK PROJECT

WHY THIS FOREST IS SPECIAL • The Salmon River watershed is one of the most intact, remote landscapes in the Klamath-Siskiyou ecoregion and harbors one of the most spectacular Wild and Scenic rivers in the country. It also contains important anadromous fish habitat, as well as the only remaining spring Chinook runs and the last completely wild salmon and steelhead runs in the Klamath River watershed.

SOUTH FORK PROJECT • The project proposes logging 2,455 acres, including mature and old-growth trees. It's directly upstream from the Klamath National Forest's Bear Country Project, which also targets old forest with industrial logging. The cumulative harm to the ecosystem from these projects would be severe. The South Fork Project area is extremely remote, highly biodiverse, and functions as an important wildlife connectivity corridor for old forest-dependent animals living between the Trinity Alps and Russian wilderness areas.

Logging unit 53 of South Fork Project. Photo credit: Luke Ruediger

CARBON STORAGE AND BIODIVERSITY • The South Fork Project area encompasses large portions of the Carter Meadows Late-Successional Reserve. This is a vital wildlife corridor for imperiled Pacific martens and Pacific fishers, threatened northern spotted owls and pileated woodpeckers, who all depend on mature and old-growth forests for nesting, roosting and denning. Logging and road construction would increase sedimentation and damage fisheries in the Wild and Scenic South Fork Salmon River, critical for the near-extinct spring Chinook salmon and five other runs of wild salmon. Loggers would build 67 timber landings — cleared areas where logged trees are piled — and an expansive network of skid roads to move the trees, harming streams, fisheries, and the Carter Meadows and Eddy Gulch Late Successional Reserves, areas set aside to protect mature and old-growth trees. The project targets old forests, not plantation stands, disproportionately harming carbon storage and future carbon sequestration.

WHY THESE TREES SHOULD REMAIN STANDING • The intensity and location of the proposed logging conflicts with the Forest Service's claim that the project will promote forest health and habitat diversity and reduce wildfire risk. In many cases the project would have the opposite effect, degrading or removing the very forest conditions the Forest Service claims it wants to protect. These older forests, including large snags, downed wood and living trees, will take centuries to recover. Removing large trees and reducing overstory canopy opens the forest to more sunlight, hot, dry winds and higher temperatures, which can encourage growth of flammable shrubs and increase wildfire risk.[8]

THE FUTURE OF MATURE AND OLD-GROWTH TREES IN KLAMATH NATIONAL FOREST • Agency timber planners have proposed three major sales in some of the last occupied northern spotted owl habitat in the Klamath Mountains. If the South Fork and Bear Country timber sales move forward, low-elevation mature and old-growth forest outside protected wilderness areas would be logged.

PROJECT STATUS • The Forest Service initiated scoping in 2020, but the project has recently been put on hold.

LOCAL CONTACT: Luke Ruediger, Klamath Forest Alliance, siskiyoucrest@gmail.com

NEZ PERCE-CLEARWATER NATIONAL FORESTS, IDAHO | DEAD LAUNDRY

WHY THIS FOREST IS SPECIAL • At more than 4 million acres, the Nez Perce-Clearwater National Forests — also called Wild Clearwater Country — in north-central Idaho is known for its wildness. The Clearwater National Forest is the southernmost part of one of world's largest inland rainforests, stretching up the continent into Canada. With rain comes growth, and with growth, carbon storage. The Clearwater National Forest has some has some of the best carbon storage potential east of the Cascades.

DEAD LAUNDRY PROJECT • The project proposes logging 3,838 acres of trees with commercial "regeneration harvest," meaning clearcuts and variations of clearcuts,[9] many greater than 40 acres — larger than 40 football fields.[10] Logging will include cutting trees more than 20 inches in diameter and cutting mature trees in designated old-growth stands.[11] The Forest Service plans to build or "reconstruct" more than 200 miles of roads in this remote area, including bulldozing logging roads through old-growth stands.[12]

CARBON STORAGE AND BIODIVERSITY • Dead Laundry targets mature and old-growth trees for logging, reducing these significant carbon stores. Proposed logging would eliminate or degrade habitat in a remote area that provides wildlife connectivity among three different unfragmented roadless areas. This area is home to dozens of species, including bull trout, which is protected under the Endangered Species Act, and the Northern Rockies fisher, which relies on mature, complex forest habitat. Grizzly bears, who need remote country with few roads, are venturing back into Wild Clearwater Country.

WHY THESE TREES SHOULD REMAIN STANDING • This sale is about commodity timber production that will release decades of stored forest carbon and harm wildlife habitat. The Forest Service claims the project is needed to produce timber, "enhance" old growth, and improve forest health and resilience, but cutting the largest and oldest trees will destroy some of the forest's rarest and most valuable ecological components. The area must be evaluated for old-growth potential, and the mature trees must be protected.

THE FUTURE OF MATURE AND OLD-GROWTH TREES IN NEZ PERCE-CLEARWATER NATIONAL FORESTS • The Forest Service has been operating under a 35-year-old forest plan aimed at industrial timber production. This plan calls for only about 10% of the forest to be old growth,[13] while targeting mature forests for logging and conversion into even-age plantations that tend to burn more severely.[14] A new forest plan is being drafted that would more than triple the amount of logging to 150 million board feet per year. To achieve these unsustainable levels, the new forest plan would do away with measurable and enforceable standards for mature and old-growth trees, water quality and sediment levels, wildlife habitat, riparian areas and fish habitat.

PROJECT STATUS • The Forest Service is seeking a waiver to clearcut areas larger than 40 acres. The Forest Service is expected to obtain the waiver and approve the project in 2023.

Along Road 737-J in Dead Laundry project area. Photo credit: Kate Bilodeau

LOCAL CONTACT: Katie Bilodeau, Friends of the Clearwater, katie@friendsoftheclearwater.org

NANTAHALA NATIONAL FOREST, NORTH CAROLINA | SOUTHSIDE PROJECT

WHY THIS FOREST IS SPECIAL • The Nantahala National Forest in western North Carolina is one of the wettest regions in the United States and a global wildlife diversity hotspot. It provides intact forest habitat in a fast-growing region dominated by fragmented private lands, as well as connectivity for rare, endemic and imperiled wildlife. It contains a section of the Appalachian Trail and three designated wilderness areas and connects to Great Smoky Mountains National Park.

SOUTHSIDE PROJECT • This project will log 317 acres including rare old-growth forest beloved by locals and the headwaters of the Chattooga River, a national Wild and Scenic River. Over 80% of the volume will be cut. It's home to one of the most important remaining populations of the imperiled green salamander. Trees will be logged on erosive slopes near streams within three areas eligible for wilderness designation and within a state-designated natural heritage area. When the timber sale was first offered in 2021, the Forest Service received no bids. In response, the agency slashed the price in half. Local conservation group MountainTrue offered to beat any logger's offer and pay the Forest Service to protect 37 acres of old-growth forest and occupied green salamander habitat, but the agency sold the trees at fire-sale prices.

CARBON STORAGE AND BIODIVERSITY • These old-growth stands hold more than a century of stored carbon in the trees, soil and surrounding plants, and stand ready to sequester more. Logging will destroy the area's ecological value and release carbon from disturbed soil and understory plants. The project will wipe out a healthy population of green salamanders, a rapidly declining species found only in isolated areas on the Blue Ridge Escarpment. The project also risks spreading invasive plants throughout the area.

One of the old-growth trees to be logged in the Brushy Mountain area of Southside project. Photo credit: Chattooga Conservancy

WHY THESE TREES SHOULD REMAIN STANDING • Less than 1% of Southeast forests are old growth. The Forest Service admits the trees it proposes to log are old growth but claims the Southside Project is needed to restore "structural diversity" and improve wildlife habitat by creating "clearings" in forest stands. Yet these old-growth stands are the most ecologically and structurally diverse in the Nantahala. The Forest Service should be allowing its mature forests to grow and recover much of the massive loss of the region's old-growth forests. This would provide ecological diversity, wildlife habitat, clean water and carbon storage to compensate for the intensive industrial timber lands that dominate this region.

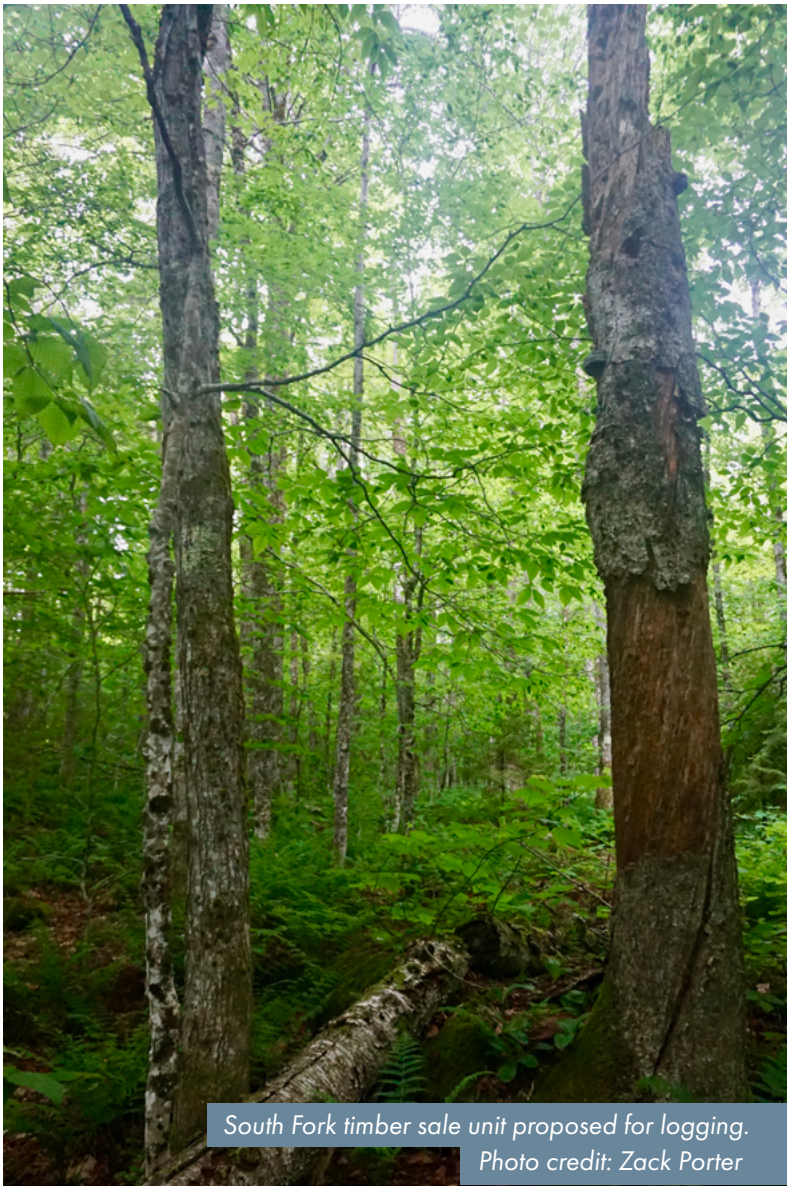
THE FUTURE OF MATURE AND OLD-GROWTH TREES IN NANTAHALA NATIONAL FOREST • The newly finalized 2022 Nantahala and Pisgah forest plan will quadruple logging levels and bulldoze 300 miles of new logging roads. Almost 300,000 acres of mature and old-growth trees are targeted for logging, including 44,000 acres of old growth that were previously protected.[15]

PROJECT STATUS • The Forest Service finalized the Southside Project in 2018 and issued the first timber sale in August 2022. That came despite objections from the Southern Environmental Law Center, Chattooga Conservancy, The Wilderness Society, Defenders of Wildlife and MountainTrue.

LOCAL CONTACT: Susannah Knox, Southern Environmental Law Center, sknox@selcnc.org

GREEN MOUNTAIN NATIONAL FOREST, VERMONT | EARLY SUCCESSIONAL HABITAT CREATION PROJECT

WHY THIS FOREST IS SPECIAL • The Green Mountain National Forest is one of two national forests in New England and is known for dramatic fall foliage where sugar maples, beech and birch are ablaze with red, orange and yellow. Created in response to uncontrolled logging in the first half of the 20th century, the 400,000-acre national forest is home to abundant wildlife including beaver, moose, black bears and several endangered species. The Appalachian Trail runs through this forest, as do eight designated wilderness areas and two national recreation areas. Some 70 million people live within a day's drive of Green Mountain, making it one of the most visited national forests in the United States.



South Fork timber sale unit proposed for logging. Photo credit: Zack Porter

EARLY SUCCESSIONAL HABITAT CREATION PROJECT • The project will cut up to 14,270 acres. Site maps show that more than 130 stands older than 100 years are targeted, some with trees 160 years and older. The project will also bulldoze 25 miles of logging roads, 17 miles of which could be permanent.

CARBON STORAGE AND BIODIVERSITY • Lands in the Green Mountain National Forest have recovered from past agricultural clearing and logging to a greater degree than surrounding private lands, and now comprise an important carbon sink. With many trees now 80 years and older, the forest is rapidly accumulating carbon and could store two to four times more carbon if allowed to grow old.[16] The project area is habitat for a host of imperiled and sensitive species that depend on large unfragmented landscapes and structurally complex old forests. These animals include martens, Indiana and northern long-eared bats, Blackburnian and cerulean warblers, and scarlet tanagers.

WHY THESE TREES SHOULD REMAIN STANDING • Mature, unfragmented forests are rare in New England. Studies show there is also plenty of early seral habitat, or young forest,[17] refuting Forest Service claims that logging here will "improve forest health" for wildlife. Green Mountain National Forest is a critical forested landscape in the broader New England-Adirondack region. Of great concern is the harm this project would cause to northern long-eared bats, which rely on large, old trees within the project area for roosting and raising young. The federal government recently proposed uplisting the bat from threatened to endangered because it may go extinct throughout its range; the Forest Service has failed to consider the harm intensive logging of mature forests will have on the bat.

THE FUTURE OF MATURE AND OLD-GROWTH TREES IN GREEN MOUNTAIN NATIONAL FOREST • The 2006 Green Mountain forest plan calls for a significant reduction in northern hardwood trees, possibly including some that are 250 years old. This sets back this forest's recovery from intensive logging in the 1800s. Logging in Green Mountain National Forest has increased considerably in the last seven years. The Forest Service has approved logging 40,000 acres, or 10% of the entire national forest, including targeting many mature and old trees.

PROJECT STATUS • The Forest Service approved this project in 2019. Timber sales will be issued for the next 10 years.

LOCAL CONTACT: Zack Porter, Standing Trees, zporter@standingtrees.org

South Plateau Project Area, Custer Gallatin National Forest. Photo credit: Nancy Schultz

CUSTER GALLATIN NATIONAL FOREST, MONTANA | SOUTH PLATEAU PROJECT

WHY THIS FOREST IS SPECIAL • The Custer Gallatin National Forest abuts the western and northern boundary of Yellowstone National Park and part of the 34,000-square-mile Greater Yellowstone Ecosystem, one of the wildest places in the lower 48 states and one of the largest nearly intact temperate-zone ecosystems on Earth.[18] The Custer Gallatin include seven mountain ranges, 4,000 miles of rivers and streams, and a landscape that forms an important connective corridor for wildlife moving between Yellowstone National Park and the Northern Rockies. Wolves, grizzly and black bears, lynx, moose, pronghorn, elk, bighorn sheep, bison and wolverines live here.

SOUTH PLATEAU LANDSCAPE AREA TREATMENT PROJECT • The project will clearcut more than 5,500 acres of mature lodgepole pine, most of the trees 90 years and older, across lands near the western boundary of Yellowstone National Park. The 15-year project proposes hundreds of clearcuts, each potentially as large as 30 football fields, and up to 57 miles of new logging roads. Up to 6,600 acres of mature lodgepole could also be thinned, which could include bulldozing roads through old-growth lodgepole pine stands.[19]

CARBON STORAGE AND BIODIVERSITY • This area is important habitat for grizzly bears, lynx, moose and elk. The animals rely on these older forests for cover, including in hunting seasons. And they use these lands to move between habitats in this wild landscape. The project will remove the largest trees across thousands of acres that would otherwise remain standing and continue to store carbon. Road construction will disturb soils that perform a similar function.

WHY THESE TREES MUST KEEP STANDING • The project would destroy and fragment habitat for lynx and grizzly bears, both listed as threatened under the Endangered Species Act, and increase the potential for poaching and other harmful human-bear interactions. That's why the Forest Service's own analysis found that 15 years of extensive road construction and logging are "likely to adversely affect" imperiled grizzlies and lynx. More than 14,000 acres of hiding cover for elk and half of important winter habitat for moose will be logged. The Forest Service justifies the project by claiming it will reduce fire severity and insect outbreaks, but lodgepole pines can live up to 300 years, all while storing and absorbing carbon. Most of the logging will occur far from communities or structures.

THE FUTURE OF MATURE AND OLD-GROWTH TREES IN CUSTER GALLATIN NATIONAL FOREST • The 2022 Custer Gallatin forest plan contains no protection for mature forests and allows unlimited logging of old-growth lodgepole pine.[20] The national forest south of the Custer Gallatin, the Targhee, has an infamous history of clearcutting right up to the boundary of Yellowstone National Park, a contrast that was visible from space. The South Plateau project could continue in that regrettable tradition.

PROJECT STATUS • The Forest Service proposed the project in 2020, then withdrew it. It issued a revised environmental assessment in October 2022. The Biden administration could approve the project in the coming months.

LOCAL CONTACT: Mike Garrity, Alliance for the Wild Rockies, Helena, Mont., (406) 459-5936, wildrockies@gmail.com

BUREAU OF LAND MANAGEMENT, MEDFORD DISTRICT, OREGON | EVANS CREEK PROJECT

WHY THIS FOREST IS SPECIAL • The Bureau of Land Management Medford District is where the Klamath and Cascade mountain ranges meet, resulting in extraordinary biological diversity. Many plant species here, including the Brewers spruce tree, are found nowhere else on Earth. The BLM lands are in the watershed of the Rogue River, renowned for fly fishing and whitewater boating. These public forests harbor some of the last important stands of large, old trees and provide wildlife refugia and habitat connectivity across this mixed-ownership landscape.

EVANS CREEK PROJECT • The BLM is proposing commercial logging on 1,131 acres, including 82 acres of clearcuts. The Evans Creek watershed is a significant salmon-spawning area, and some trees in the project area are 150 to 200 years old. Trees up to 40 inches in diameter are proposed for logging. The BLM is declassifying 732 acres of northern spotted owl habitat so it can be logged.

CARBON STORAGE AND BIODIVERSITY • The Evans Creek watershed is home to threatened northern spotted owls, who are highly dependent on mature forest habitat. About 181 miles of streams provide habitat for the Southern Oregon/Northern California unit of coho salmon, a threatened fish protected under the Endangered Species Act. The streams in the watershed also support several other native fish populations, including Chinook salmon, steelhead and Klamath small-scale sucker, which all could be harmed by runoff and siltation from logging operations. The amount of carbon storage loss from this sale is significant. In just one timber unit, Evan's Gem, almost 20,000 trees with an average diameter of more than 17 inches were cut.

Old-growth tree logged in Evans Gem sale, a unit of the Evans Creek Project. Photo credit: Klamath-Siskiyou Wildlands Center

WHY THESE TREES SHOULD REMAIN STANDING • The BLM Medford District is interspersed with private industrial timber lands that are clearcut about every 40 to 60 years. These remaining blocks of mature and old-growth habitat are needed for northern spotted owls, whose populations are declining largely because so much mature and old-growth habitat has been lost. These large trees and mature stands are generally resistant to natural disturbance, such as wildfire.

THE FUTURE OF MATURE AND OLD-GROWTH TREES IN BLM MEDFORD DISTRICT • Across the range of the northern spotted owl in western Oregon BLM forests, about 1 million acres of mature and old-growth trees are at risk of being logged.[21] In the BLM Medford District, tens of thousands of acres of mature and old-growth trees are at immediate risk from several logging projects.

PROJECT STATUS • The project was approved in 2019 and logging was mostly completed at the end of summer 2022. In September 2022 a federal judge found that the Evans Creek and the nearby Poor Windy old-growth sales were illegally harming northern spotted owl habitat.

LOCAL CONTACT: Alexi Lovechio, Klamath-Siskiyou Wildlands Center, Alexi@kswild.org

BUREAU OF LAND MANAGEMENT, ROSEBURG DISTRICT, OREGON | 42 DIVIDE STAND MANAGEMENT PLAN

WHY THIS FOREST IS SPECIAL • The Bureau of Land Management Roseburg District project is within the Umpqua River watershed in southwestern Oregon. It includes portions of the Cascades and Oregon Coast ranges. The Umpqua watershed hosts important runs of salmon and steelhead. These temperate, low-elevation forests include large, magnificent mature and old-growth stands that support rich species diversity and clear headwaters that flow to the Coquille River downstream.

42 DIVIDE PROJECT • As part of the 42 Divide Project, the Roseburg BLM proposes logging 5,280 acres of conifer stands, including clearcutting and commercial thinning on 1,728 acres, and building logging roads. Trees up to 200 years old are targeted for logging. The project includes some of the most intensive tree removal that the BLM allows.

Logging unit in the 42 Divide Timber Sale. Photo credit: Francis Eatherington

CARBON STORAGE AND BIODIVERSITY • This coast range forest provides large-scale carbon storage, clean water and mature and old-growth habitat for animals protected under the Endangered Species Act, including marbled murrelets, coho and Chinook salmon, and Northern spotted owls. The most recent range-wide analysis for Northern spotted owls shows alarming population declines, with habitat loss still a major factor. Studies show the survival of marbled murrelets depends on no further loss of Coast Range mature and old-growth habitat.

WHY THESE TREES MUST KEEP STANDING • Logging large, old trees and mature stands removes trees most resilient to fire and climate change and most important for owl nesting and roosting. Logging in these older forests removes standing dead and downed dead wood, essential elements of forest health and habitat. Intensive logging will also harm stream flows. The BLM has refused to correct mapping and inventory errors that mischaracterize areas of mature and old-growth forests. This has led the BLM to propose logging trees that are much older than the agency claims.

THE FUTURE OF MATURE AND OLD GROWTH ON THE ROSEBURG DISTRICT • About 1 million acres of mature and old-growth trees are at risk of being logged across the northern spotted owls' range in western Oregon BLM forests.[22] The Roseburg District's forest plan requires maintaining the minimum amount of mature forest necessary to satisfy the legal requirements for marbled murrelet and spotted owl habitat. However, the BLM's recent logging proposals focus on meeting high timber targets. The agency should undertake lighter-touch thinning only in stands younger than 80 years and in overstocked plantations that were created by clearcutting mature and old-growth stands.

PROJECT STATUS • In November 2021 the BLM announced it was developing an environmental assessment for the project. The agency hasn't released a timeline.

LOCAL CONTACT: Madeline Cowen, Cascadia Wildlands, madeline@cascwild.org

BITTERROOT NATIONAL FOREST, MONTANA | BITTERROOT FRONT PROJECT

Management Unit 5, South Ward Unit. Photo credit: Michele Dieterich

WHY THIS FOREST IS SPECIAL • The Bitterroot National Forest is one of the nation's earliest, dating back to the 1800s. Most of the wildlife encountered by Lewis and Clark still live here, perhaps because half the forest is protected as wilderness. As part of the chain of national forests that runs along the Rocky Mountains from New Mexico to British Columbia, the Bitterroot provides habitat and wildlife connectivity for an array of mountain wildlife, including grizzly bears, elk, bighorn sheep and mountain goats.

BITTERROOT FRONT PROJECT • The project will include commercial logging of 54,883 acres, including 13,245 acres identified as roadless. Most of the remaining acres include mature and old-growth forest, identified as roadless in the 1987 forest plan, have not been commercially logged for more than 80 years. To facilitate this and other logging projects, the Forest Service has proposed weakening the standards defining old growth. It also wants to redefine important old-growth attributes, including how much old forest habitat should remain to provide wildlife cover.

CARBON STORAGE AND BIODIVERSITY • Grizzlies are returning after being extirpated 50 years ago, and the area includes suitable habitat for Canada lynx and wolverines. Mountain streams support westslope cutthroat trout and critical habitat for imperiled bull trout. The project area borders one of the largest wilderness areas in the lower 48 states and includes two proposed Wild and Scenic rivers. In 1987 the forest plan required stream surveys for potential permanent protection, but the Forest Service has yet to do so. Commercially logging the largest, oldest trees depletes the area of carbon stores and their ongoing sequestration capabilities.

WHY THESE TREES SHOULD REMAIN STANDING • The roadless areas of the project area include mostly mature trees and old-growth forest. Logging large, fire-resistant trees and suspending forest plan standards for wildlife habitat undermines Forest Service claims that the project is needed to improve habitat and reduce fire risk. This is a place to be protected, not sold for timber the country doesn't need.

THE FUTURE OF MATURE AND OLD-GROWTH TREES IN BITTERROOT NATIONAL FOREST • Much of the Bitterroot National Forest is fragmented with logging roads. Wildlife habitat has been severely degraded by decades of commercial logging. The Forest Service has proposed weakening the standards in its 35-year-old forest plan to slash protections for old-growth from 40-acre patches to just 5-acre patches.

PROJECT STATUS • The Forest Service's environmental analysis is expected in late 2022. Timing for the agency's final decision is not yet known.

LOCAL CONTACT: Michele Dieterich, Friends of the Bitterroot, telechele@hotmail.com

END NOTES

[1] Daniel Boone National Forest, Land and Resource Management Plan, 2004, at 3-26.
"Examination of Future Old-Growth on the forest determined that the dry-mesic oak and mixed mesophytic hardwood (including American beech) were under-represented, with less than 8 percent by old-growth type." https://www.fs.usda.gov/detail/dbnf/landmanagement/planning/?cid=fseprd1005077

[2] Daniel Boone National Forest, Land and Resource Management Plan, 2004, at 2-7.
"Objective 1.4.B. Maintain at least eight percent of each old-growth type (USDA Forest Service 1997) in patches at least 300 acres in size. Acreage can be contributed by any or all Prescription Areas that are recognized as future old-growth and by the 1.I-Designated Old-Growth Prescription Area." https://www.fs.usda.gov/detail/dbnf/landmanagement/planning/?cid=fseprd1005077

[3] Multiple communications between Kentucky Heartwood and the Daniel Boone National Forest indicate the Forest Service believes that old-growth forests are inherently "decadent" and in need of logging. For example, a June 19, 2019, email among the Forest Service project team stated: "This little gem of analysis says that we will run out of CTR [crop tree release] stands very soon, and many of our stands that are senescent and in need of regeneration will soon be approaching our "old growth standards", at least from an age perspective." Additionally, an August 13, 2019 Forest Service email titled the South Red Bird Habitat Enhancement Project, Methods Used to Develop the Proposed Action, stated "We used GIS and FSVeg data to identify stands and areas that were likely to need treatment, most often based on age classes."

[4] USFS, 2006. Monongahela National Forest Forest Plan, Appendix B, Old Growth. At B-1.
https://www.fs.usda.gov/detail/mnf/landmanagement/planning/?cid=fsm9_011361

[5] Monongahela Forest Plan at II-18. "Use lands unsuited for timber production (MPs 5.0, 6.2, 5.1, portions of 8.0) as patches of potential old growth. In MPs with suitable timberlands (MPs 3.0, 6.1, portions of 4.1), identify potential old growth areas based on management direction and emphasis, as well as information on delineating potential old growth in Appendix B."
https://www.fs.usda.gov/detail/mnf/landmanagement/planning/?cid=fsm9_011361

[6] DEIS PR at 634_0379 (D. D'Amore & R. Edwards, Climate and Carbon in Southeast Alaska: Beyond the Threshold of Change in a Dynamic Landscape(2014)) (D'Amore & Edwards).

[7] O. N. Krankina et al., High-Biomass Forests of the Pacific Northwest: Who Manages Them and How Much is Protected?, 54 Environmental Management 112, 113 (2014); A. N. Gray & T. R. Whittier, Carbon stocks and Changes on Pacific Northwest National Forests and the Role of Disturbance, Management, and Growth, Forest Ecology and Management 167, 168 (2014) (—The national forests of the Pacific Northwest Region attain some of the highest [carbon] densities in the U.S.-](Gray & Whittier)

[8] Weatherspoon, C.P. 1996. Fire-silviculture relationships. Pp. 1167-1176 in: Sierra Nevada Ecosystem Project, Final Report to Congress, Volume II: Assessments and Scientific Basis for Management Options. Centers for Water and Wildland Resources, University of California, Davis, CA. Rambom, T.R. and M.P. North. 2009. Canopy microclimate response to pattern and density of thinning in a Sierra Nevada forest. Forest Ecol Management 257(2): 435–442. doi:10.1016/j.foreco.2008. 09.029. Frey, S.J.K., A.S. Hadley, S.L. Johnson, M. Schulze, J.A. Jones, and M.G. Betts. 2016. Spatial models reveal the microclimatic buffering capacity of old-growth forests. Sci. Adv. 2: e1501392. Lesmeister, D.B., R.J. Davis, S.G. Sovern and Z. Yang. 2021. Northern spotted owl nesting forests as fire refugia: A 30-year synthesis of large wildfires. Fire Ecology 17: 32-50. doi.org/10.1186/s42408-021-00118-z.

[9] Dead Laundry EA at 8, 9. https://www.fs.usda.gov/project/?project=57827

[10] Dead Laundry EA at 9.

[11] Dead Laundry EA at 26.

[12] Dead Laundry EA at 26.

[13] Nez Perce-Clearwater National Forests DEIS for the Revised Forest Plan, 3.2.1.1, at 68. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd684957.pdf

[14] Harold S. J. Zald et al, Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape, Ecological Applications (2018). DOI: 10.1002/eap.1710

[15] See Pisgah-Nantahala Forest Plan Report Card. https://forestplanreportcard.org/

[16] Keeton et al, Late-Successional Biomass Development in Northern Hardwood-Conifer Forests of the Northeastern United States, Forest Science (2011) https://www.researchgate.net/publication/233579700_Late

[17] Lorimer and White, 2003. "Scale and frequency of natural disturbances in the northeastern US: implications for early successional forest habitats and regional age distributions." PDF available here: https://www.researchgate.net/publication/264347444_Scale_and_frequency_of_natural_disturbances_in_the_northeastern_US_Implications_for_early_successional_forest_habitats_and_regional_age_distributions

[18] National Park Service, https://www.nps.gov/yell/learn/nature/greater-yellowstone-ecosystem.htm (last viewed Oct. 18, 2022).

[19] Custer Gallatin NF, South Plateau Project Environmental Assessment (Oct. 2022) at 91.

[20] Custer Gallatin National Forest Plan (2022) at 39.

[21] Staus, N.L., J.R. Strittholt and D.A. DellaSala. 2010. Evaluating areas of high conservation value in western Oregon with a decision-support model. Conservation Biology 24: 711-720.

[22] Staus, N.L., J.R. Strittholt and D.A. DellaSala. 2010. Evaluating areas of high conservation value in western Oregon with a decision-support model. Conservation Biology 24: 711-720.