#### **TIME TO CHANGE THE MISSION** JACKSON DEMONSTRATION STATE FOREST

Moving from industrial logging to forest restoration and carbon sequestration.

2022



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## SUMMARY

The climate crisis is changing how we view many activities that we used to undertake with little thought. Economic resiliency and environmental concerns are no longer a luxury, especially when drought, wildfire and other challenges face our State at every turn. Likewise in this moment, we can pause and rethink if the State of California should continue to engage in large scale commercial logging in our largest 50,000-acre Jackson Demonstration State Forest (JDSF). Our State could use this forest instead to help combat climate change, increase our economic resiliency, utilize traditional cultural knowledge, protect and restore biodiversity, reduce fire risk, all while expanding equitable outdoor access and recreation for all Californians. This is the better deal for Californians and for nature.

These State lands should be utilized to achieve the State goal of conserving 30% of California's land and coastal waters by 2030 (30X30). If our largest State owned forest is not the right place to implement our 30X30 goals, what is?

We can put our State Forest to better use than commercial logging. It can be used to:

- Build Climate Resilience. Trees are the only reliable carbon sink, and redwoods are the most effective trees at carbon sequestration in the world. Redwoods live for 2,000 years and sequester more carbon (250 times more) than any other tree type, and the older they get the more carbon they store each year. Conversely, logging is one of the most damaging activities to our climate because it reduces the effectiveness of our best and most productive carbon sink, while releasing a majority of the sequestered carbon (in slash burning and mill waste) into the atmosphere. Even the final deck boards and fencing materials only last 30 years. By stopping commercial logging in Jackson we would increase carbon sequestration and create a world-class state-owned carbon sink.
- Address Equity. The Coyote Valley Band of Pomo has called on the State to stop logging Jackson Forest in order to protect cultural resources and to engage in restorative management of the forest. Additionally Coyote Valley Band of Pomo is engaged in Government to Government negotiations about the management of this State resource.

#### Partners & Endorcements









- Increase Economic Sustainability. Historically logging has been a source of good paying jobs on the north coast, however this is no longer true. Jackson supports relatively few logging jobs, as it comprises just 5% of all timber lands in Mendocino County. Currently, there are only 395 logging jobs in Mendocino County, with 17 supported by logging in Jackson, while tourism provided over 6,900 jobs. Jackson would better serve Mendocino County as an economic engine for tourism and recreation.
- **Provide stunning outdoor public recreation.** Jackson provides miles of unmarked and unimproved walking, hiking and biking trails which are actively utilized by tens of thousands of visitors each year. These facilities should be improved with more camping facilities, trail signage and public restrooms.
- Reduce Fire Risk. Timber harvests have been equated with fire safety. However post-fire research has found that logging greatly increases the risk of forest fires, due to the: 1) highly flammable slash left behind; 2) wind tunnels that result from the removal of swaths of trees; 3) elimination of the fog drip which adds significant moisture to redwood forests; 4) growth of a post-logging dense understory that is fire-prone; and 5) removal of the fire resilient large redwood trees. By halting commercial logging in Jackson we can increase its fire resilience over time.
- Demonstrate Forest Restoration. The Forestry Board's policy describes Jackson Demonstration State Forest as "commercial timberland areas managed by professional foresters who conduct programs in timber management, recreation, demonstration, and investigation in conformance with detailed management plans," (Board Policy 0351.1). However, Jackson demonstrates the same logging practices over and over: 95% of all acres harvested since 1997 were Selection (69%), Group Selection (20%) and Commercial Thin (7%). No new logging practices have been demonstrated in JDSF in many years. Jackson should demonstrate forest restoration and carbon sequestration, not the same old commercial logging.
- Pay for it. The State earns relatively little revenue from timber harvests in Jackson, a recent 500-acre timber harvest sold for \$3,500/acre. On average timber harvested in Jackson, between 2016 and 2020, generated \$8.4 million per year, cost \$4.1 million and netted \$4,3 million in profit to the State of California, a tiny fraction (0.06%) of Calfire's \$7 billion budget.











Showing Up for Racial Justice



California Native Plant Society



#### What is next for JDSF? To transform Jackson, we must work to:

- 1. Halt timber harvest, the approval of new Timber Harvest Plans and the sale of timber harvests in Jackson Demonstration State Forest until a new Management Plan is adopted.
- 2. Support the rights of Indigenous Pomo tribes to engage in Government-to-Government consultation and comanagement of Jackson Demonstration State Forest.
- 3. Adopt legislation to change the management objectives of Jackson from "commercial logging" to "forest restoration, carbon sequestration and public recreation."
- 4. Establish an official, professionally-mediated public planning process to develop a new Management Plan for JDSF. This dialogue should include key stake-holders, including: local representatives, Native American tribes, non-profits, user groups, academics, and Jackson Management.





CLIMATE CHANGE ACTION Advisory Committee





**Photos:** Art Mielke (AM), John Klein (JK), Chet and Madia Jamgochian (CMJ), Garth Hagerman (GH), Marie Jones (MJ) **Author, Layout, Design:** Marie Jones is Chair of the Mendocino County Climate Advisory Committee, Executive Director of Jug Handle Nature Center, and principal of Marie Jones Consulting. She holds a Masters Degree in Regional Planning from Cornell University and a BA in Biology and Environmental Studies from University of California at Santa Cruz.

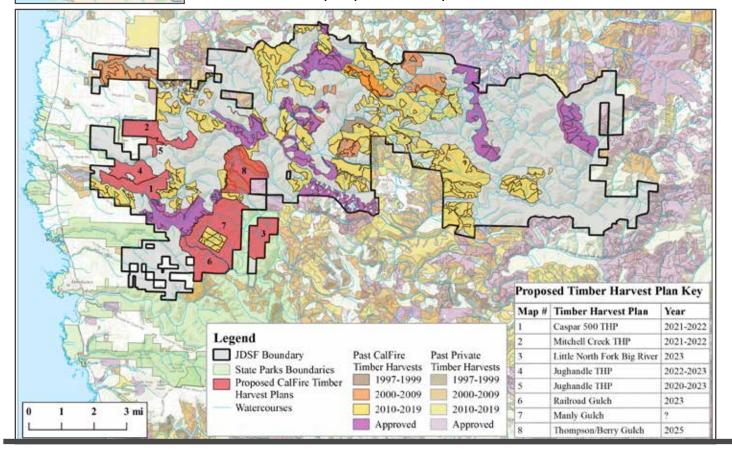
# OVERVIEW- JACKSON

#### What is Jackson Demonstration State Forest?

- Largest State Owned Forest at 50,000 acres.
- Currently managed for commercial logging.
- Includes many wetlands, riparian and stream habitats.
- Has 90 miles of fish bearing streams.
- Includes hundreds of miles of connected public trails.

Jackson State Forest is the only publicly owned redwood forest of significant size south of Humboldt County. Furthermore, it is the only state forest managed for industrial scale logging.

- The map illustrates the state's logging activities including those planned for the next five years (in red). The forested areas that are currently being logged include some of the largest old second growth redwood groves and currently offer hundreds of miles of beautiful hiking and biking trails.
  - The eight areas slated for logging are close to hundreds of residences, border three State Parks, and are visited by tens of thousands of people annually.





#### MENDOCINO COUNTY PROTECTS ONLY 2% OF ITS TIMBER LAND FROM LOGGING, COMPARED TO 37% IN DEL NORTE COUNTY AND 11% IN HUMBOLDT COUNTY.



#### **Opportunities & Challenges**

The current Management Plan was adopted in 2016, when the Climate Crisis seemed a more distant concern. With recent catastrophic heat waves, drought and fires, the climate crisis is accelerating with more consequential environmental and economic impacts. The Management of Jackson must refocus from industrial logging to climate resiliency and mitigation.

- Jackson offers the State an opportunity to sequester carbon in a State-owned forest, and redwoods are the most productive forests at carbon sequestration.
- Species conservation and protection is critical in this time of climate crisis. Jackson is home to over 1,266 species, not counting insects, including rare, threatened and endangered species, such as Coho, Northern Spotted Owls, Marbled Murrelet, osprey, red legged frogs, and many others.
- There are numerous Pomo cultural places, sites and resources in Jackson, some of which have been damaged, destroyed or degraded by logging activities.
- Mendocino County's economy was once driven by the redwood forest products industry, however the economy has transitioned to a visitor serving economy. Jackson is well positioned to become a nationally recognized destination for mountain biking, camping, ecological restoration and climate mitigation. These new economic sectors already provide ten times the jobs as those from logging.
- Jackson's demonstration mandate can be shifted to the demonstration of Forest Restoration and Carbon Sequestration.

# DEMONSTRATION& RESEARCH @ JACKSON

Jackson Forest is managed to demonstrate "innovative" commercial timber harvests. The Forestry Board's policy describes Jackson Demonstration State Forest primary purpose as "commercial timber lands" that are managed to "conduct innovative demonstrations, experiments, and education in forest management" (Board Policy 0351.2).

Since 1997 JDSF has approved 50 THP's that demonstrate the same logging practices over and

over. Calfire has approved "Selection" for 69% of all acres that were harvested in Jackson. The second most common technique were group selection (20% of acres), and commercial thinning (7%). These logging practices are no longer innovative as they are used throughout the commercial logging industry.

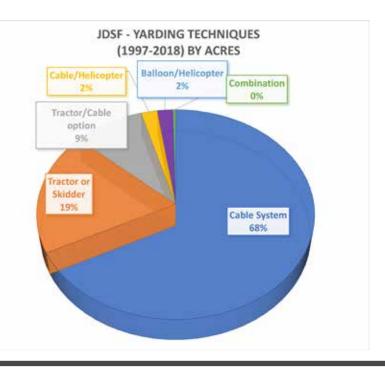
Additionally, the most common landing techniques are also employed regularly at JDSF, including: Cable System (68%), Tractor/Cable Option (19%), Tractor/ Skidder (9%). These are no longer innovative techniques.

Clearly JDSF's logging demonstrations are not innovative, and they are only marginally profitable. Timber harvests in Jackson, between 2016 and 2020, generated \$8.4 million per year, cost \$4.1 million and netted \$4.3 million in profit to the State of California, a tiny fraction (0.06%) of Calfire's \$7 billion budget.

The policy goal to cut state owned forests for revenues and demonstration are now outweighed by the policy goals for carbon sequestration and recreation.

#### JSDF - Completed Timber Harvest Plans Siviculture Techniques (1997-2018)

	Acres	Percent
Selection	8,705.2	69.4%
Group Selection	2,548.0	20.3%
Commercial Thin	887.8	7.1%
Alternative Prescription	154.2	1%
Seed Tree Seed Step	129.8	1.0%
Clear cut	50.5	0.4%
Shelterwood Seed Step	41.9	0.3%
Variable Retention	12.1	0.1%
Road Right-of-Way	6.6	0.1%
Total	12,536.1	100.0%



Forestry research is a primary policy objective for managing Jackson Demonstration Forest for commercial logging, and many research projects have been completed at Jackson. They explore the impacts of logging on the environment, watersheds, landslides and sedimentation, and the efficacy of various silviculture techniques. The research is largely carried out and paid for by academics and students affiliated with colleges and universities.

However, much of the research completed at JDSF does not depend on continued logging of the forest. Additionally, with a revised mission, Jackson could be used for new research focused on carbon sequestration, forest management through traditional ecological knowledge, fire resilience, climate mitigation and forest restoration. These research topics are more relevant to our time and more in line with State ownership of a forest.

When old forests are cut in the name of science, alarm bells should go off.





# **TWO STORIES IN A FOREST**

These photos illustrate two different property owners on two sides of a road and of a trail.



ON THE LEFT, THE FOREST IS OWNED AND MANAGED BY STATE PARKS.

ON THE RIGHT, JACKSON FOREST IS OWNED AND MANAGED BY CALFIRE.



Slash left behind at Jackson

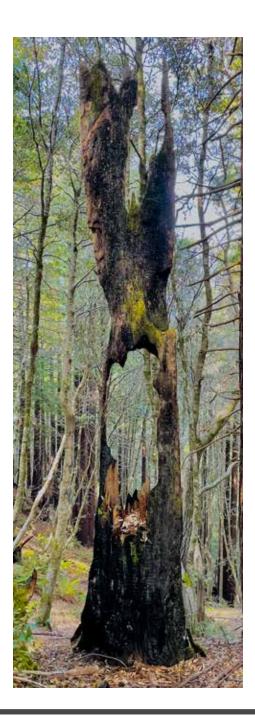




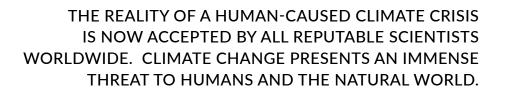
Jackson Forest - Clearcut Timber Harvest & Access Road

Last week, I toured the harvest sites and clear cuts with a team of independent climate scientists, engineers, and naturalists...and what I witnessed was an infirmed, young, firethreatened, and over-crowded forests and many large, carbon-storing trees marked for extraction. Across vast swaths of the forest, the bewildering forest policy on display, presumably for scientific ends, has failed. I urge the governor's administration to account for emerging forest and climate science, to reject the obfuscating rhetoric of the silviculture industry, and to redesignate the forest as the Jackson Forest Reserve as part of the 30x30 conservation plan.

- Obi Kaufmann, Author California Field Atlas



# **CLIMATE RESILIENCY & JACKSON**







There is a deep connection between forest protection and climate protection. First, forests are critically important in our fight against rising CO2 levels and concomitant climate change. Despite covering only 9% of the earth's surface, forests are responsible for sequestering 25% of anthropogenic carbon emissions, which is approximately equal to the carbon sequestered by the global oceans (Pan et al., 2011). Second, enhancement of forest-based carbon storage is critical to mitigate emissions in other sectors, especially as no alternative carbon-sink technologies have yet been proven at scale. (Houghton, et al 2015).

As part of the thinking about the future of JDSF, its important to understand that logging reduces the net new carbon sink in forests by about 25% each year throughout the US. (<u>Harris</u> <u>et al., 2016</u>). In fact climate researchers have determined that limiting timber harvesting and increasing forest protection on public lands is the best approach to increase forest carbon uptake (Law et al., 2018).

Some may argue, that forests may burn with climate change and so timber harvests are a better way to sequester carbon than letting the trees burn. However, timber harvests result in five times higher loss of sequestered Carbon (C) than all other natural or human-caused forest disturbance types combined, including fire, wind (hurricanes), insect infestation, and land use conversions from forest to other uses. (Harris et al., 2016).





"If anyone is wondering if climate change is real, come to California." -Governor Newsom



INCREASING FOREST PROTECTION IS THE LOWEST COST AND THE SINGLE MOST EFFECTIVE TOOL WE HAVE IN MEETING EMISSION REDUCTION TARGETS (MOOMAW, ET AL., 2019).



Over time, old-growth forests store approximately twice as much carbon as forests managed on a 100-year rotation, and forests managed on a 50-year rotation store about 38% as much as old growth (Harmon et al., 1990). Unfortunately, Jackson is on a very short, 20-year logging rotation schedule. This means every piece of the forest is logged every 20 years on average. During each successive logging, the forest loses more of its old second growth trees, because these trees produce the most board feet of lumber. As Jackson has most of the old second growth forests in California, these forests should be protected as they are the best at sequestering carbon and mitigating the climate crisis.

Additionally, studies show that redwoods continue to grow and absorb carbon throughout their 2,000 year lives (<u>Luyssaert et al., 2007</u>; <u>Stephenson et al., 2014</u>, <u>Lutz et al., 2018</u>; <u>Mildrexler et al., 2020</u>), therefore premature mortality through harvesting is associated with both immediate carbon releases and the much more important decreased sequestration potential over time (Battles et al., 2014).

In fact, the dominant cause of carbon loss from our forests is timber harvest (<u>Harris et al., 2016</u>; <u>Berner et al., 2017</u>), and thus protecting forests from logging maximizes carbon storage and removal of CO2 from the atmosphere (<u>Campbell et al.,</u> 2012; Law et al., 2018).

Some will argue that cutting down trees and converting them to wood products sequesters carbon, however the redwood products that become decks, fencing and trim in homes typically end up burned or in a landfill within 30 years (O'Connor, 2004). That time frame is a fraction of the sequestration potential of old-growth forests, particularly Redwoods that can sequester carbon for millennia (Harmon et al., 1990; Iberle et al., 2020; Sillett et al., 2020).

# RECREATION, JOBS AND ECONOMY



Tourism has replaced logging as the primary economic engine of the Mendocino County economy: tourism now provides 6,900 jobs, more than 20 times the number of jobs as logging in Mendocino County, which employs 395 people, while the entire wood products industry employs 973 people (Henderson, 2017).

CMJ

Additionally, the cessation of logging in Jackson will not have a substantial impact on county-wide timber industry employment or revenue, because Jackson represents a fraction (5.6% or 48,652 acres) of the total timber-lands in the county (866,206 acres). Logging of Jackson supports only 17 logging jobs and 37 other woods products jobs.





In 2018, prior to the pandemic, total direct travel spending in the county increased 9.15% to \$482.2 million. Tourism generated wages of more than \$214 million. The County Treasurer-Tax Collector's October 2020 Transient Occupancy Tax (TOT) report shows that revenue to the County from lodging businesses increased to \$7.4 million.

A substantial portion of the visitors to Mendocino County come to experience our unparalleled outdoor recreation opportunities. Indeed outdoor recreation is one of the most prominent growth sectors worldwide and locally and JDSF is one of the top four tourism draws in the county. It is very popular with mountain bikers, hikers, campers, birders, mushroom enthusiasts and nature lovers generally.

Jackson could play an even larger role in our local economy as a recreation draw, especially with some simple improvements, such as highway signage, trail markers, and a few restrooms. Currently logging threatens this vibrant part of our economy as it degrades the nature based recreational opportunities at Jackson.



#### OLD GROWTH HARVESTED IN THE 1800S



OLD SECOND GROWTH HARVEST IN JDSF, 2021



"In the summer of 1990, much of the east Caspar drainage was clear cut. I'll never forget riding my bike along Rd 500 coming upon the devastation. Slash piles were still smouldering with only a few old growth trees left standing.

Recently, I walked down to the legacy tree. I put my arms on its massive 37 foot girth and said a prayer. Even thirty years later, the forest has not fully recovered. - *Roo Harris, author and pre-eminent mountain biker* 

### CASPAR 500 THP LEGACY OLD GROWTH TREE

CMJ



# FIRST NATION COYOTE VALLEY BAND OF POMO, ELDER PRISCILLA HUNTER

on Protecting Her Forest Family & Recovering Her Homeland



My name is Priscilla Hunter and I am a tribal elder of Coyote Valley Band of Pomo Indians. I also serve as the Chairwoman of the Intertribal Sinkyone Wilderness Council consisting of ten local tribes who have purchased 3,900 acres on the Mendocino Lost Coast in order to preserve the forest there and save it from a third clear-cut. Our view of a sustainable forest is a forest that sustains our culture, values and way of life, not one that is managed in order to be cut for profit.

As such, we placed a wilderness easement on our Intertribal park lands in order to prohibit in perpetuity any commercial logging there. The Jackson Demonstration State Forest generates millions of dollars of profit every year from logging operations on lands previously ravaged by clear cuts. In this time of climate change, it is time to preserve and protect the growth of redwoods on these lands, rather than cut them down in massive numbers, and let the forest heal for the benefit of future generations. This is the Peoples' forest, not a timber company's forest.

The members of my Coyote Valley Band of Pomo Indians Tribe are Coast Yuki and Northern Pomo. We are intimately connected to the Coastal redwoods, the oaks, madrones and pepperwood trees from thousands of years of respectful interrelation with them. We are the original peoples of the land now called Mendocino County with strong ancestral connections to the trees, plants and critters that inhabit this region. In the past our Ridge runners ran the Mendocino coastal ridges with great speed and spiritual power and continue to protect us. When in prayer, we can see them. Our ancestors from time immemorial gathered acorns throughout the coastal range, fished for salmon in the rivers and gathered food, basket weaving materials and medicinal plants from the coastal forest. We lived in harmony with the forest, only using redwood trees that fell down. Our ancestors would be unable to comprehend measuring the value of a forest by the amount of merchantable board feet it can produce for sale. To us, the redwoods are sacred guardians of our ancestral territory that we turn to in prayer. Therefore I and the 10 member

tribes of the Intertribal Sinkyone Wilderness Park, are dedicated to their preservation and would prefer they not be cut at all. The Intertribal Sinkyone Wilderness Council has placed a wilderness conservation easement upon the park lands they manage north of the Jackson Demonstration State Forest on Mendocino's Lost Coast. This conservation easement prohibits the commercial harvesting of redwoods in perpetuity and provides for the natural recovery of the forest.



The forests helped "sustain" us for

thousands upon thousands of years and we never cut down the redwoods. Now, the timber industry and Jackson Demonstration State Forest managers define "sustainability" in a manner completely at odds with our Indigenous world view. "Sustainability" to them means being able to cut down redwood trees that can live for thousands of years and replant them in order to keep continuing cutting the trees every few decades. The primary motivation for their sustainability model is money and job creation, not forest health. In their rush to cut redwood trees, they fail to honour the vital life giving force of these forests that are the very lungs of Mother Earth.

Devastation of our ancient redwood forests has paralleled the devastation inflicted upon my Coast Yuki and Northern Pomo ancestors by the brutal invasion of our territory by non-Native settlers. The non-Native settlers' clear-cutting of the forest occurred simultaneously with the rape, murder and enslavement of my ancestors. My ancestors had to flee to the Redwoods and hide in order to save themselves from death at the hands of the settlers. When I speak today for the redwoods, I do so with the cries of my ancestors in my heart and with the future generations ahead of us in my mind and prayers. We Indian people in Mendocino County are the remnant survivors of a state sanctioned genocide, as the coastal redwood trees are the remnant survivors of massive amounts of clear-cutting by non-Native settlers and their descendants. We Indian people feel a heartfelt kinship with the slaughter that the redwood trees faced just like our ancestors faced at the hands of non-Native settlers.

Mother Earth is bleeding and barely breathing as the Rain Forests are cut down from here to the Amazon and up north to Alaska. Climate change is wrecking great damage on our local community with forest fires raging all around us due to drought. For the health of the forest and the critters within it, for the well-being of my people both spiritually and culturally, and for the fresh air and carbon sequestration that large redwoods provide, the coast redwoods in Jackson Demonstration State Forest should be protected. They should be allowed to grow to become ancient trees, sustained in a family circle of madrone oak trees, pepperwood trees and manzanita and huckleberry bushes.



Our forest family since time immemorial here in the Redwood Rain Forest region and in our Coast Yuki/Northern Pomo ancestral territory has always consisted of the following trees living together in a mutually sustaining interactive community. I shall designate these trees with their Northern Pomo names in order that their spirit enters these pages: k'asilxale (redwood tree); k'abat' xale (madrone); bihem xale (pepperwood); shik'o (willow); kaye (Manzanita tree); xawa' xale (fir tree); jomxale (grey pine tree) and a variety of oaks. The acorns from oak trees provided and continue to provide an essential traditional food source for the members of mine and neighboring Tribes. Before the forest was clear-cut by non-Native settlers these trees lived in a mutually sustaining circle of life which also helped sustained both physically and spiritually the Indian people of this region and restoration efforts should include their preservation in a mutually sustaining circle of life.

The Coyote Valley Band of Pomo Indians have initiated Government to Government Consultation with Cal-Fire and the Forest Manager of Jackson Demonstration State Forest. The Jackson Advisory Group contains the head of the timber company that wants to cut the 60 to 90 year old redwoods that have managed to grow on the State Forest's clear cut lands. This is a conflict of interest at the forest management level. He represents private industry, not the public trust. Redwood trees can live for 1,500 to 2,000 years. Cutting 60 to 90 year old redwoods as currently proposed by the managers of the Jackson Demonstration State Forest is cutting them in their virtual infancy.

Another conflict of interest is the timber company's foresters who are given the ultimate say in identifying the perimeters of and determining whether our ancestral archaeological sites are deemed worthy of protection. The government to government consultation my Tribe has initiated with the Jackson Demonstration State Forest, CAL-Fire, the CA Department of Forestry and Fire Protection, and the CA Department of Resource Management may be difficult as we as Indians look upon the forest in such a different manner than logging companies and consider our ancestral cultural sites to be sacred and worthy of protection and not merely troublesome obstacles to be overcome in logging plans. To the extent that the mission of the Jackson State Demonstration Forest is to protect the forest rather than merely commercially harvest it, the Coyote Valley Band of Pomo Indians urges the State to restore this forest to the fullest extent possible by reintroducing all of our tree relations that previously thrived together in the forest and nurturing the growth of them all, not just promoting the growth of redwoods at their expense. I was truly shocked to hear that the Management Plan for the Jackson Demonstration State Forest contains so much emphasis on and even allows for extensive commercial harvesting of redwood trees on this land. I thought as a State Park the forest there was protected.

The drafters of the Mission Statement for Jackson Demonstration State Forest looked at a forest in terms of how many board feet could be extracted from it for profit. This view leads to a disrespect of the forest as a whole and the failure to see the interrelation and mutual collaboration of the diverse tree family members who previously lived all together, sustaining each other in our ancestral territory and offering us the beautiful and generous gift of being the lungs of Mother Earth that sustain our very breath. They give us the gift of breath and thus they should be cherished as our



relatives. For we could not live without them as they, as the earth's lungs, sustain our very existence. Sustainability should not be measured by how many years loggers must wait to re-cut a previously ravaged forest and then how many years they must wait to cut them once again.

Forests should be restored to live as actual forests and not as a patchwork of single species tree farms. I beg the State to follow the model of the Intertribal Sinkyone Wilderness Council and simply let the forest heal. [Please reference the following scientific research articles that support this indigenous restoration perspective: Restoration of Coast Redwood (Sequoia Sempervirens)Forests through Natural Recovery, Will Russell, Jeff Sinclair, Kristen Hageseth Michels, Department of Environmental Studies, San Jose State University (2014) and Stand Development on a 127 year old Chronosequence of Naturally Regenerating (Sequoia Sempervirens) (Taxodiaceae) Forests, Will Russell and Kristen Hageseth Michels, Department of Environmental Studies, San Jose State University (2010).

Of further and particular alarm to Pomo people is the killing of thousands upon thousands of oaks by timber companies through the spraying of Imazapyr and Glyphosate and other herbicides in order to promote the growth of merchantable timber. This is a travesty that cuts to the heart of Pomo culture because of our reliance on acorns as an essential food source. I therefore strenuously object to the hack and squirt poisoning of oak trees or the foliar spraying of herbicides in any of the THPs proposed for logging at Jackson Demonstration State Forest.

Thank you for your attention to these heartfelt concerns. Priscilla Hunter–3/3/2021, Redwood Valley, California "We remain a sovereign Indian nation committed to protecting our ancestral sites and biological cultural resources in this state forest. We are in a committed alliance with the environmental activists and community members in Mendocino County in a united effort to protect the redwoods at JDSF." - Polly Girvin

AM

# PRESERVE ECOLOGICAL DIVERSITY

THE CLIMATE CRISIS HAS CONTRIBUTED DIRECTLY AND INDIRECTLY TO THE LOSS OF BIODIVERSITY AND THE DESTRUCTION OF ECOSYSTEMS.

JACKSON IS UNIQUELY POSITIONED TO HELP RETAIN BIODIVERSITY IN OUR REGION AND THE STATE.

- Under the 30x30 vision laid out in the Global Deal for Nature, lands are classified according to their GAP status code, which indicates the gap between their biodiversity and their current level of protection.
- Jackson Demonstration State Forest, as GAP3 land, is recognized as having, "particular potential to advance biodiversity and climate protections more quickly through administrative mechanisms."
- The Global Deal for Nature notes that, to avoid an irreversible wave of mass extinction, 90% of biodiversity hot spots globally must have the highest level of protection by the year 2030.
- Currently Jackson is not a good deal for nature so long as state managed industrial logging continues.









"What can the redwoods tell us about ourselves? The flickering, transitory quality of human time and the brevity of human life – the necessity to love." - Richard Preston



JACKSON IS HOME TO OVER 1,266 SPECIES, NOT COUNTING INSECTS, INCLUDING: COHO AND STEEL-HEAD, 13 AMPHIBIAN SPECIES, 21 MAMMALS, 131 BIRD SPECIES, AND MANY RARE, THREATENED OR ENDANGERED PLANTS.

JACKSON IS HOME TO OVER 745 SPECIES OF FUNGI.



# **REDUCE FIRE RISK**

RESEARCH HAS FOUND THAT COMMERCIAL LOGGING PRACTICES DO NOT REDUCE WILDFIRE DANGER, INSTEAD THEY EXACERBATE IT.

Some politicians and Calfire managers claim that our forests are overgrown and need to be "thinned" or "raked" to prevent catastrophic fires. However, thinning and logging in all scenarios increased fire-line intensity and instand wind speeds and the associated crowning potential of the fire <u>Cruz et al., 2014</u>. Additionally, uncut forests are the most fire resistant of all forest types. Partially cut stands (treated and untreated slash), suffer the most severe fire damage (Weatherspoon and Skinner, 1995).

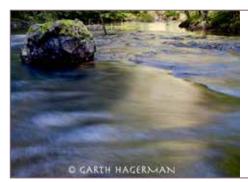
In a redwood forest all types of logging increase fire risk because large trees make up the canopy over-story that provides cooling shade to the under-story below. Stand openings created by "thinning" allows the under-story to receive much more solar radiation resulting in rapid growth of thick brush, which quickly dries out during the summer months and becomes highly flammable tinder. Coupled with leftover slash from the timber harvest and the remaining stand of smaller trees, the dry under-story provide both horizontal and vertical continuity necessary to turn a surface fire into a crown fire (Weatherspoon, 1996).

Logging intensity is the second most important predictor of wildfire intensity, surpassed only by weather and drought conditions (Zald and Dunn, 2018). Across the entire western U.S., fires burn with less intensity on lands that have the highest protections from logging (Bradley et al., 2016).



The largest trees in any stand are logged first because they have a higher market value. Large trees also provide the greatest protection from wildfire because they are the most fire resistant. Large trees have the thickest bark and the highest basal branches, which protect the tree from cambium kill and prevent the fire from climbing up the fuel ladder into the canopy. Because the largest trees are the most fire resilient. their selective removal weakens the forest's overall resilience to wildfire.

Solar Radiation Logging large trees opens the forest canopy allowing more sunlight to reach the forest floor and dry out the under brush and soils, and create a hotter, drier, and more flammable under-story micro-climate (Weatherspoon, 1996).





#### Fog Drip

The largest trees have the greatest tree canopy and contribute the most to the summer fog drip which greatly increases the vapour content in a mature coastal forest like Jackson. Fog drip increases surface and under-story moisture thereby reducing wildfire risk.

Summertime fog drip contributes positively to stream flows, which provide water for numerous ecosystem functions and human use (<u>Sawaske and Freyberg,</u> <u>2014</u>).

#### Wind

Logging the largest trees thins the canopy allowing for greater in-canopy and in-stand wind speeds that fuel higher intensity fires (<u>Banerjee</u>, 2020). The artificially enhanced windier environment enhances evaporation rates, further drying out the forest fuels, and, in the event of a fire, allows the fire to spread faster with greater intensity (<u>Weatherspoon</u>, 1996; <u>Cruz et al.</u>, 2014).

The best way to protect homes from large fires is to establish defensible space of 100 feet. Vegetation management activities beyond 100 feet from homes has negligible influence on whether or not a home survives a wild-land fire (Syphard et al., 2014, DellaSala and Hanson, 2015).

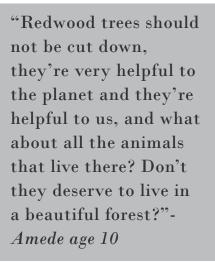


THE WET FOREST FLOOR PRE-HARVEST.



The Dry "forest" floor after a 1997 timber harvest at JDSF.

Families for the Forest is a group of youth and parents who have been gathering to raise awareness of Timber Harvest in Jackson. They learn about the forest, have been cataloguing the plant species on fun family hikes, and participate in protests to oppose the logging.



"It's important to protect the trees because we will die without them, and so many other creatures will die too. And I feel so safe in the trees, I feel like it's where I really live. The loggers don't understand the trees' language, but we all know they don't want to be cut down." -Jory Leeleck Wellspring age 6





"My generation will pay for what this generation has done." - Ravel Gauthier, Age 12.

"From the forest's ability to shield us from impending wildfires to its critical role in minimizing catastrophic climate change, the options seem pretty clear: Selling it for quick cash falsely identifies it as dispensable, while preserving it treats it as the crucial investment in our future that it is. We are here to support this investment until the people's forest is finally managed scientifically and democratically." -Anonymous, age 19

"I want to see these trees when I grow up." -*Royal age 6*  "We are beginning to rightly calculate that the measurable worth of a large and old, standing tree, with its intact habitat space, its carbon store, and its cultural value, outpaces the worth of that tree on the ground.... There may be as much as 40 million metric tons of Carbon in JDSF's approximately 50,000 acres and much of it is in the big trees. The best thing we can do is to leave it there standing.

- Obi Kaufmann, Author California Field Atlas



# POLICY CHANGE

- To transform Jackson, we must all work with legislators and staff of the Department of Natural Resources to:
- 1. Halt timber harvests, the approval of new Timber Harvest Plans, and the sale of timber harvests in Jackson Demonstration State Forest until a new Management Plan is adopted.
- 2. Support the rights of Indigenous Pomo tribes to engage in Government-to-Government consultation and co-management of Jackson Demonstration State Forest.
- 3. Adopt legislation to change the management objectives of Jackson from "commercial Logging" to "forest restoration, carbon sequestration and public recreation."
- 4. Establish an official, professionally-mediated public planning process to develop a new Management Plan for JDSF. This dialogue should include key stake-holders, including: local representatives, Native American tribes, non-profits, user groups, academics, and Jackson Management.



