



THE  
CONSERVATION FUND

2021  
ANNUAL  
REVIEW

**NORTH COAST FOREST  
CONSERVATION  
INITIATIVE**



# Caspar Index

Named after our North Coast hometown, this is a customized index with important forest health and economic indicators we measure and track. Past North Coast annual reviews are available at: <https://www.conservationfund.org/projects/north-coast-forest-conservation-initiative>

	2019	2020	2021
<b>Water Quality</b>			
Big River Forest lowest summer stream temperature (mean weekly average temperature)	59 (Lower Two Log Creek)	59 (Lower Two Log Creek)	58 (Lower Two Log Creek)
Big River Forest highest summer stream temperature (mean weekly average temperature)	69 (Mainstream Big River at eastern property line)	69 (Mainstream Big River at eastern property line)	68 (Mainstream Big River at eastern property line)
Environmental Monitoring & Assessment Program reaches monitored per year on the Garcia River by The Nature Conservancy and the North Coast Regional Water Quality Control Board (65 total reaches established)	5	0	0
<b>Forest Economics</b>			
Estimated local economic contribution (employment, contractors, purchases)	\$3.5 million	\$3.5 million	\$3.3 million
Volume of logs removed (gross board feet)	2,947,360	3,758,790	3,280,490
Number of log truckloads to mill	618	620	670
Verified forest carbon offsets	327,988	359,253	Verification in progress
Miles driven by an average passenger car* that are equal to above forest carbon offsets	824,298,743	891,739,794	Verification in progress
<b>Community Outreach</b>			
Number of participants in the Pedestrian and Equestrian Stewardship Access Program on Salmon Creek, Big River	10	10	15
Public tours	5	0 (postponed due to COVID-19)	2
<b>Northern Spotted Owl Conservation</b>			
Northern spotted owl activity centers	28	29	29
Northern spotted owls successfully fledged	1 - Garcia 1 - Big River	1 - Garcia	1 - Garcia 1 - Big River 1 - Salmon Creek
Forest acres set aside for northern spotted owl habitat	2,800	2,900	2,900
<b>Coho Salmon and Steelhead Trout Conservation</b>			
Approximate cubic yards of sediment saved through road improvement projects	1,082	6,072	2,086
California Department of Fish and Wildlife salmonid spawner survey reaches sampled	6	6	6
Numbers of logs added to streams to improve salmonid habitat	0**	0**	0**

\*The EPA's Greenhouse Gas Equivalencies Calculator, used to convert the verified metric tons of carbon dioxide equivalent to number of miles driven by an average car, can be found at [www.epa.gov/energy/greenhouse-gas-equivalencies-calculator](http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator).

\*\*We have received grant funding for future projects.

## PROJECT BACKGROUND

At The Conservation Fund, we know that well-managed forests can be both economically viable and ecologically sustainable. On California's North Coast, we continue to refine and demonstrate our pioneering approach to forest conservation: balancing environmental restoration and stewardship with the economic imperatives of large-scale forest ownership and the desire to sustain the local timber economy.

Since 2004, with the help of our public and private partners, we have protected more than 120,000 acres of forestland as part of our North Coast Forest Conservation Initiative. Of these protected forests, we own and manage more than 74,000 acres in Mendocino and Sonoma counties. Our goal is to prove that large, understocked tracts of coastal forest can be returned to ecological and economic viability through patient, adaptive management by a nonprofit organization, in partnership with private and public entities and community stakeholders.

We invite you to learn more about the major accomplishments, challenges and activities of our program in 2021. Our success depends on the strong support of a diverse set of partners—donors, neighbors, local businesses, government agencies and conservation groups. None of this would be possible without you. Thank you for your interest and continued support.

**Also, thank you to all our staff, contractors, and neighbors that helped us minimize COVID-19 risk over the course of 2021 and helped us through another difficult fire season.**

# HABITAT RESTORATION



Left: Northern Spotted Owl ©Chris McCafferty  
Right: ©Ivan LaBlanca

**PLACING LARGE WOOD AND** upgrading our more than 500 miles of road infrastructure to reduce the amount of sediment that ends up in streams is a high priority for salmon habitat restoration. Maintaining roads is critical for reducing road born sediment and maintaining access for other restoration projects, botanical surveys and northern spotted owl surveys.

An example of a road improvement project is the Stewart Creek Sediment Reduction Project in the Gualala River Forest, which was implemented in partnership with Pacific Watershed Associates and the Mendocino County Resource Conservation District, using cost-share

funding from the State Water Resources Control Board. Phase I of the project was completed in 2019, with 6.5 miles of roads storm-proofed, preventing 7,480 cubic yards of sediment from entering Gualala River tributaries—the equivalent of 780 dump trucks of dirt. Phase II of the project was completed in 2021, improving approximately 3.5 miles of road, with 4,665 cubic yards of sediment savings. Erosion control and prevention work (storm-proofing) applied on a watershed scale is the first and perhaps most important step when restoring watersheds and their anadromous fish populations where sediment is a limiting factor to fisheries production.



Through the timber harvest plan process, we upgraded 2.85 miles of road in the Big River Forest, with 61 cubic yards of sediment savings, and replaced the Graphite Creek culvert on the Garcia River Forest, preventing 350 cubic yards of sediment from entering the stream.

In 2021, Trout Unlimited received funding for Phase I of the Big River Salmonid Rearing Habitat and Large Wood Enhancement Project. The goal of the project is to restore salmonid habitat complexity in a 3-mile reach of mainstem Big River on The Conservation Fund's Big River Forest, by installing moderate to large-scale engineered log jam structures. These structures will be used to create habitat diversity and complexity for coho salmon, steelhead trout and Chinook salmon to improve both summer and winter rearing conditions. Phase I is to identify areas where habitat is lacking and design the engineered log jams. Phase II will be the implementation of the engineered log jams.

Another important element of habitat restoration is the enrichment planting of seedlings. In 2021, we planted 3,200 redwood seedlings on 46 acres in the Big River Forest and 5,000 Douglas fir seedlings on 21 acres in the Garcia River Forest. These seedlings were planted following a timber harvest to provide a new age-class of trees within the forest and to create complex multi-age and diverse stand structure for the long-term health of the forest.

**Photos:**  
Top Photo: Coho Salmon, ©Bureau of Land Management  
Bottom Left: Seedling, ©Jean Baptiste Charra  
Bottom Right: Juvenile Steelhead Trout, ©John McMillan



©Tom Kogut/USFS

## By The Numbers: The Northern Spotted Owl (*Strix occidentalis caurina*)

42"  
average wingspan

13  
unique sounds of hoots, whistles, and barks identified

15,000  
entire population of Northern Spotted Owls left

Sources: [abcbirds.org](http://abcbirds.org) and [usgs.gov](http://usgs.gov)

# TIMBER HARVESTS



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**T**HE TOTAL VOLUME OF sustainably harvested trees in 2021 was 3,280,490 gross board feet from Big River and Garcia River Forests. This is slightly below our Allowable Annual Cut (the annual amount of timber that can be harvested on a sustainable basis within a defined forest area), as determined in our management plans and Sustained Yield Plan. All redwood and Douglas fir logs were harvested by local logging companies and sold to sawmills in Mendocino and Sonoma counties. Our forest conservation would not be possible without a healthy forest industry. We thank the local sawmills, logging contractors and resource professionals who help make our program and the forests successful.



©Rachid Dahnoun



**DID YOU KNOW?** Nearly 40 percent of the value of all timber harvested in California comes from privately owned forests in Humboldt and Mendocino counties of California.

Source: [conservationfund.org](http://conservationfund.org)

# FOREST CERTIFICATION



©Ivan LaBianca

**A**S THEY HAVE EVERY FALL since 2007, third-party verifiers completed a field audit of the North Coast Forest Conservation Initiative to the Forest Stewardship Council® (FSC®-C001535) and Sustainable Forestry Initiative® (SFI®) standards. This project and our other working forests throughout the country were in overall conformance with the standards in 2021, receiving no corrective action requests. These are two of the most strict and comprehensive standards for forest management. We actively participate in the California SFI Implementation Committee and welcome comments and questions regarding our forest certification.



©Chad Rileu



**DID YOU KNOW?** When properly managed, timber is both renewable and a major source of environmental benefits.

Source: [conservationfund.org](http://conservationfund.org)

Full audit reports are available on our website: [www.conservationfund.org/projects/north-coast-forest-conservation-initiative/north-coast-reference-documents](http://www.conservationfund.org/projects/north-coast-forest-conservation-initiative/north-coast-reference-documents)

# CLIMATE ACTION



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**F**OREST CONSERVATION IS A critical tool in the fight against climate change, and redwood forests store more carbon per acre than any other forest type. Before we purchased the North Coast forests, they were at risk of conversion or continued overharvesting. Our goal has always been to sustainably manage and restore the forests. The emergence of a market for carbon credits stimulated by California's 2006 Global Warming Solutions Act allowed us to purchase additional lands, reduce harvest levels and accelerate the pace of watershed restoration. Our North Coast forest carbon projects comply with California Air Resources Board (CARB) forest offset protocols and are verified to ensure that the carbon offsets are real, verifiable, additional, enforceable and permanent.



Left: @Joshua Earle  
Right: @Michael Rubin Photos



**DID YOU KNOW?** Coast redwoods can live more than 2,000 years, but ancient coast redwoods are rare—less than five percent of the original forest remains today.

Source: [savetheredwoods.org](http://savetheredwoods.org)

# PUBLIC ACCESS PROGRAM



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**T**HE CONSERVATION FUND provides pedestrian and bicycle access in the Big River and Salmon Creek Forests, and equestrian access in the Salmon Creek Forest. These programs were launched in 2007 to provide outdoor recreation, cultivate stewardship and increase surveillance on the forests. Participants sign a permit to hike or ride for free on logging roads in the forests. In Big River Forest, we provide access to local community members to cut firewood for home use. Since 2012, we have allowed limited permit-based hunting in the Garcia River Forest to local residents. In addition, multiple tours of all our forests to review timber harvests and restoration

projects are offered throughout the year. We are currently evaluating the potential for providing expanded public access to Buckeye Forest.

Please contact [hnewberger@conservationfund.org](mailto:hnewberger@conservationfund.org) to sign up for any of these public access opportunities.



**DID YOU KNOW?** The Garcia River Forest project absorbs the emissions of more than 14,000 cars annually.

Source: [nature.org](http://nature.org)

## Spotlight

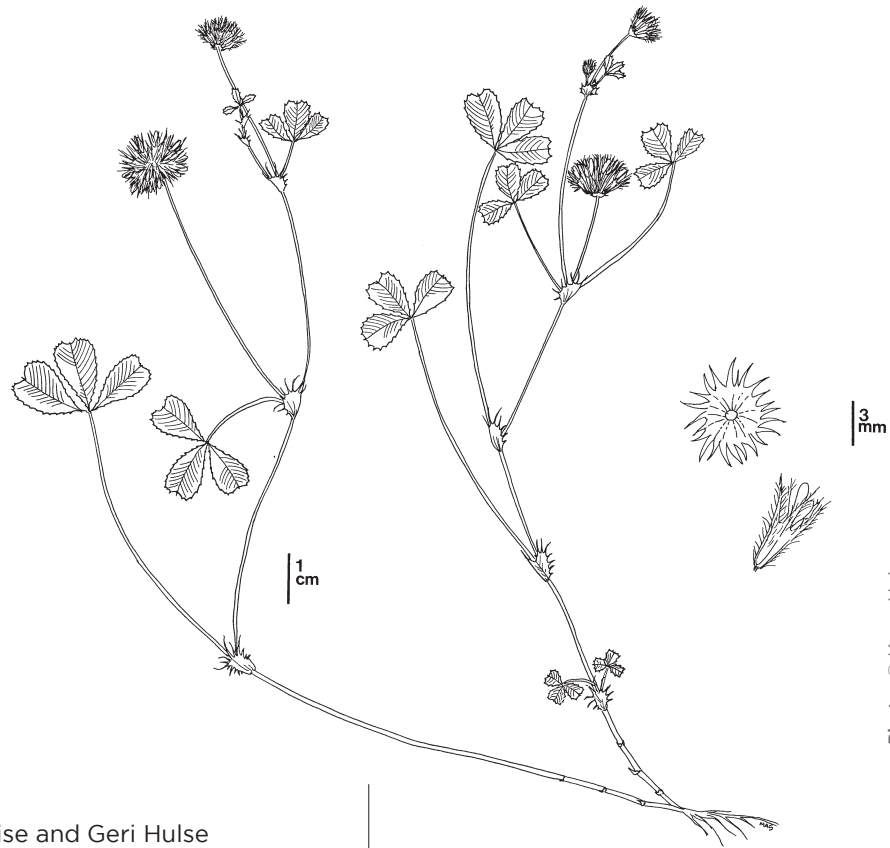


Photo: © Kerry Heise  
Illustration: Courtesy California Department of Fish & Wildlife

In spring 2011, local botanists Kerry Heise and Geri Hulse Stephens found Monterey clover (*Trifolium trichocalyx*) on our Big River Forest. Federally and state listed as endangered, with only 25 previously known plants, Monterey clover thrives on our Big River Forest, where an estimated 5,000 plants occur. This discovery resulted from countless days of systematically classifying all the tiny plants along the edge of a small stretch of logging road. Subsequently, Kerry and Geri also found Monterey clover on our Garcia River Forest.

In 2021, Vanessa Handley, Project Scientist at the University of California Botanical Garden contacted us for access to the Garcia River Forest to collect seeds from the rare Monterey clover. UC Botanical Garden (UCBG) is one of the partners in California Plant Rescue, a consortium engaged in a large, state-funded seed banking initiative. It came to Vanessa's attention that Monterey clover had not yet been banked.

In July 2021 she collected 526 seeds from 55 maternal lines, which refers to the seeds from a single individual plant. The protocol followed by UCBG (based on that of the Center for Plant Conservation) restricts to 5% total seed set to ensure that the wild population is not adversely impacted. The collected seeds are split between two sites: half of the lot stays within the UCBG repository while the remainder is sent to a back-up facility, the National Laboratory for Genetic Resources Preservation, a U.S. Department of Agriculture facility in Fort Collins, Colorado. The goal is to get the species into secure, long-term storage as a small but powerful conservation measure.

### FAREWELL

We wish both Olivia Fiori, Registered Professional Forester and Ryan Klausch, Forester the best in their new career ventures.

### WELCOME

We welcome JaCodie Thompson, Forest Technician and Joaquin Quintana, Registered Professional Forester (both pictured below) to the North Coast team!



©TCF staff, Blake Tallman

## Acknowledgments

### PROJECT PARTNERS & FINANCIAL SUPPORTERS

California Department of Fish and Wildlife	Salmon Creek Project Team	Jacobszoon & Associates Inc. <i>Timber Inventory and Timber Harvest Plan Writing</i>	Gary Swanson <i>Roadwork</i>
California State Coastal Conservancy	Schmidbauer Lumber Company, Inc.	Darcie Mahoney <i>Botanical Surveys</i>	Mark Taylor <i>Security</i>
Conrad Forest Products	Sonoma Land Trust	Tim Marsh <i>Security</i>	Vasquez Reforestation <i>Tree Planting and Thinning</i>
David and Lucile Packard Foundation	Sonoma County Agricultural Preservation and Open Space District	McFarland Trucking <i>Log Hauling</i>	Wylatti Resource <i>Management, Roadwork and Bridge Building</i>
Gordon and Betty Moore Foundation	The Nature Conservancy	Don Miller <i>Security</i>	<b>ADVISORY BOARD</b>
Mendocino County Resource Conservation District	Trout Unlimited	Pacific Watershed Associates <i>Road Assessments and Restoration</i>	Larry Hanson <i>Forest Unlimited</i>
Mendocino Land Trust	California Wildlife Conservation Board	Robert Piper <i>Logging and Roadwork</i>	Alan Levine <i>Coast Action Group</i>
North Coast Regional Water Quality Control Board	Willits Redwood Company	William Piper <i>Roadwork</i>	Darcie Mahoney <i>Registered Professional Forester</i>
North Fork Lumber	<b>PRIMARY CONTRACTORS</b>	Elias Steinbuck <i>Geologic Assessments</i>	Linda Perkins <i>Salmon Creek Project Team</i>
Redwood Empire	Christopher Blencowe <i>Stream Restoration and Monitoring</i>	Mike Stephens <i>Northern Spotted Owl Biological Surveys</i>	
Richard King Mellon Foundation	Gloria Desanker <i>Database and Cartography</i>		
S.D. Bechtel Jr. Foundation	Kerry Heise <i>Botanical Surveys</i>		
	Hiatt Logging Inc. <i>Logging and Roadwork</i>		

## The Conservation Fund's North Coast Staff

Lauren Fety Forest and Climate Project Manager	Scott Kelly Timberland Manager	Joaquin Quintana Registered Professional Forester	Blake Tallman Forester
Chris Kelly California Project Manager	Holly Newberger Program Manager	Evan Smith Senior Vice President, Conservation Ventures	JaCodie Thompson Forest Technician
Lynsey Kelly GIS Specialist	Barbara Ortega Bookkeeper		







Big River Forest  
©Rachid Dahnoun



Please see our website for more information on the North Coast Forest Conservation Initiative: [conservationfund.org](https://www.conservationfund.org).

Detailed monitoring reports are also available by topic from our office in Caspar, CA:

Attention: **Holly Newberger, North Coast Program Manager**

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