

THE
CONSERVATION FUND

2023
ANNUAL
REVIEW

**NORTH COAST FOREST
CONSERVATION
INITIATIVE**



Caspar Index

Named after our North Coast hometown, this is a customized index that shares some of the important forest health and economic indicators we measure and track. Past North Coast Reviews are available at: www.conservationfund.org/projects/north-coast-forest-conservation-initiative/north-coast-reference-documents.

	2021	2022	2023
Water Quality			
Big River Forest lowest summer stream temperature (mean weekly average temperature)	58 (Lower Two Log Creek)	57 (Upper Two Log Creek)	57 (Upper Two Log Creek)
Big River Forest highest summer stream temperature (mean weekly average temperature)	68 (Mainstream Big River at eastern property line)	68 (Mainstream Big River at western property line)	68 (Mainstream Big River at western property line)
Forest Economics			
Estimated local economic contribution (employment, contractors, purchases)	\$3.3 million	\$4.3 million	\$4.6 million
Volume of logs removed (gross board feet)	3,280,490	5,004,970	4,562,100
Number of log truckloads to mill	670	1,095	968
Verified forest carbon offsets	349,623	258,500 * Buckeye Forest 2022 verification is still in progress	Verification in progress
Miles driven by an average passenger car* that are equal to above forest carbon offsets	867,836,155	661,131,208	Verification in progress
Community Outreach			
Number of participants in the Pedestrian and Equestrian Stewardship Access Program on Salmon Creek, Big River	15	10	12
Public tours	2	3	2
Northern Spotted Owl Conservation			
Northern spotted owl activity centers	29	29	29
Northern spotted owls successfully fledged	1 - Garcia 1 - Big River 1 - Salmon Creek	2 - Garcia 1 - Salmon Creek	1 - Garcia
Forest acres set aside for northern spotted owl habitat	2,900	2,900	2,900
Coho Salmon and Steelhead Trout Conservation			
Approximate cubic yards of sediment saved through road improvement projects	2,086	295	859
California Department of Fish and Wildlife salmonid spawner survey reaches sampled	6	5	5
Numbers of logs added to streams to improve salmonid habitat	0	102 in Buckeye Creek	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.

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, including environmental restoration, sustainable timber harvests, sale of carbon offsets and support of 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 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, 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 2023. 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 continued support.

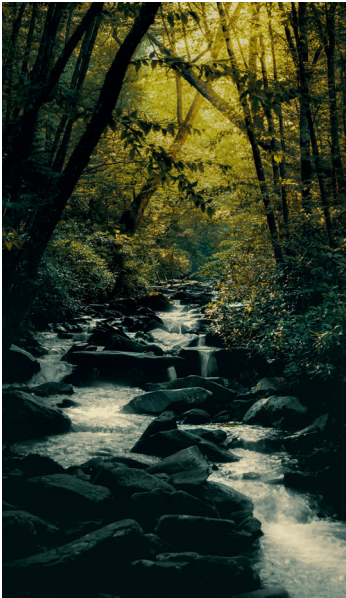
HABITAT RESTORATION



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HIGH PRIORITY STRATEGIES for salmon habitat restoration are focused both instream and across our more than 500 miles of road infrastructure to reduce the amount of sediment that ends up in the waterways. Road maintenance is critical for reducing road born sediment and maintaining access for other restoration projects, as well as botanical and northern spotted owl surveys.

Through the timber harvest plan process, we upgraded 3.34 miles of road in the forests at 17 sites, keeping 859 cubic yards of sediment out of streams. Erosion control and prevention work (storm-proofing) is the first and perhaps most important step in restoring watersheds and their populations of fish swimming upstream to spawn.



Left ©Todd Trapani | Right: ©Sergey and Marina Pyataev



Steelhead Trout ©Jeffrey Lee

Trout Unlimited continues to work on the Big River Salmonid Rearing Habitat and Large Wood Enhancement Project on The Conservation Fund’s Big River Forest. The goal of the project is to restore complex stream habitat in a three-mile reach of the mainstem of Big River by installing moderate to large-scale engineered log jam structures. These structures will help create habitat diversity and complexity essential for successful salmon spawning, and improve summer and winter rearing conditions for coho salmon, steelhead trout and Chinook salmon.

Planting tree seedlings is another important element of habitat restoration. In 2023, we planted 5,000 redwood seedlings in the Big River and Gualala River forests. These seedlings were specifically cultivated for high elevation sites and were planted following a timber harvest to provide a new age-class of trees within the forest, creating a complex multi-age and diverse stand structure for the long-term health of the forest.



FOUR FACTS about the Coho Salmon

(Oncorhynchus kisutch)

Commonly called silver salmon, coho have dark metallic blue or greenish backs with silver sides and a light belly.

Adult coho salmon usually weigh 8-12 pounds and are 24-30 inches long.

Coho salmon are found throughout the North Pacific Ocean and in most coastal streams and rivers from Alaska to central California.

Coho salmon are anadromous — they hatch in freshwater streams, spend a year in streams and rivers, then migrate out to an ocean saltwater environment to feed and grow.

TIMBER HARVESTS



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THE TOTAL VOLUME OF sustainably harvested trees in 2023 was 4,562,100 gross board feet from Big River, Gualala and Salmon Creek 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 depends on a healthy forest industry. We thank the local sawmills, logging contractors and resource professionals who help make our program and the forests successful.



©Rachid Dahmoun



DID YOU KNOW?

A recent report from the U.S. Bureau of Labor Statistics found that foresters believe they have the happiest and most meaningful work of any major industry.

Source: U.S. Bureau of Labor Statistics' American Time Use Survey

FOREST CERTIFICATION



©Chad Rileu

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. These are two of the most strict and comprehensive standards for forest management. This project and our other working forests throughout the country were in overall conformance with the standards in 2023, receiving no corrective action requests. We actively participate in the California SFI Implementation Committee and welcome comments and questions regarding our forest certification.

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



©Whitney Flanagan

DID YOU KNOW?



Fog-drip from the canopy is an important source of moisture during times of low rainfall and may be a key factor for certain trees to persist through the summer drought.

Source: oneearth.org

CLIMATE ACTION



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FOREST 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 over harvesting. 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.



©My Good Images



DID YOU KNOW?

In the United States alone, forests remove 10% to 15% of our annual greenhouse gas emissions.

Source: iucn.org

PUBLIC ACCESS PROGRAM



©Sefa Tekin

THE 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 offer access to people in the local community 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 Holly Newberger at hnewberger@conservationfund.org to sign up for any of these public access opportunities.



DID YOU KNOW?

The Japanese concept of shinrin-yoku, or forest bathing, has been shown to provide both psychological and physiological health benefits.

Source: nih.gov

Spotlight

By Sarah Gallagher, Senior Environmental Scientist at the California Department of Fish & Wildlife

Along the Mendocino Coast, late fall rains increase river flows, signaling salmon and steelhead to leave the salty depths of the sea to return to their spawning grounds. Coho salmon and Chinook salmon are the first to return, typically in November, and their spawning extends into February. Steelhead return beginning in early winter, and spawn through late spring. Eggs can be found incubating in the gravel nests throughout the winter and spring.

Coho salmon and steelhead are considered keystone species. They are indicators of watershed health and influence an entire ecosystem. Most populations of salmonids in California are at very low numbers and are protected under both federal and state Endangered Species Acts, including Coho salmon, Chinook salmon and steelhead that inhabit the coastal watersheds of Mendocino County.

California state agencies, federal agencies and NGOs have made significant investments to repair stream habitat and build healthy and resilient ecosystems to protect remaining salmon and steelhead populations. Population Monitoring, used to determine status and detect trends, serves as an important measure of recovery of these species.

Fisheries agencies developed the California Coastal Monitoring Plan (CMP) to monitor parameters that assess the long-term viability of populations of salmon and steelhead. The California Department of Fish and Wildlife (CDFW), in partnership with Pacific States

Marine Fisheries Commission, Redwood Timber Company and Mendocino Redwood Company, has tracked populations of salmon and steelhead in their freshwater life stage along the Mendocino Coast since 2008 using CMP methods. Monitoring consists of intensive river surveys (spawning ground surveys) that cover about 500 miles of accessible habitat for salmon and steelhead. Since the survey crews cannot cover that many stream miles in one survey season, the sample design is random and spatially balanced, covering 15% (approximately 75 stream miles) of the habitat annually.

Surveys include stream reaches on The Conservation Fund’s Garcia River and Big River Forests. Survey reaches are inspected every two weeks throughout the spawning season. Surveyors search for live adults and redds (nests that female salmon dig into the stream bottom to lay eggs). Because survey methods rely on crews making observations of fish and redds in the water, surveys need to be planned carefully around rainstorms and elevated stream flows when visibility is poor. When the spawning season is complete, redd counts are expanded into both redd and adult estimates.

Life-cycle monitoring is conducted in select tributaries in the sample space to calibrate estimates, and to capture and count smolts (juvenile salmon heading to the ocean) each spring. Knowing how many adults return from the ocean from spawning surveys and how many smolts leave freshwater helps scientists assess survival and the success of stream habitat restoration in improving stream conditions.

Coho Salmon Population Estimates (derived from redd counts) provided by California Department of Fish and Wildlife.

Year	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Number of coho salmon in Big River watershed	80	134	160	269	519	155	1344	744	250	963	NS	1198	866	513	490
Number of coho salmon in Garcia River watershed	69	9	90	0	211	3	163	170	73	399	NS	44	318	132	270

The table above shows coho salmon adult population estimates from Big River and the Garcia River. Monitoring has found that salmon and steelhead numbers are stable but well below targets set for recovery. This is important information to consider for agencies and organizations like The Conservation Fund as we continue to implement salmonid habitat restoration projects throughout North Coast watersheds.

Acknowledgments

PROJECT PARTNERS & FINANCIAL SUPPORTERS

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Mendocino Forest Products

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Salmon Creek Project Team

Schmidbauer Lumber Company, Inc.

Sonoma Land Trust

Sonoma County Agricultural Preservation and Open Space District

The Nature Conservancy

Trout Unlimited

California Wildlife Conservation Board

Willits Redwood Company

PRIMARY CONTRACTORS

Bob Baker Trucking
Roadwork

Barnett Logging, Inc.,
Logging and Roadwork

Christopher Blencowe
Stream Restoration and Monitoring

Joe Cinek
Timber Harvest Plan Writing

Hiatt Logging Inc.
Roadwork

Jacobszoon & Associates Inc.
Timber Inventory and Timber Harvest Plan Writing

Darcie Mahoney
Botanical Surveys

Tim Marsh
Security

McFarland Trucking
Log Hauling

Heather Morrison
Botanical Surveys

James (Rusty) Noe
Security

Noyo Forestry, LLC
Roadwork

Pacific Watershed Associates
Road Assessments and Restoration

Robert Piper
Logging and Roadwork

Redwood Forest Foundation, Inc.
Northern Spotted Owl Biological Surveys

Rossi Logging and Construction, Inc.
Logging and Roadwork

William Piper
Roadwork

Seefeldt, Inc
Logging and Roadwork

Elias Steinbuck
Geologic Assessments

Gary Swanson
Roadwork

Mark Taylor
Security

Vasquez Reforestation
Tree Planting and Thinning

Dave Wright
Hydrologist

Wylatti Resource Management
Roadwork and Bridge Building

ADVISORY BOARD

Larry Hanson
Forest Unlimited

Bill Heil
Salmon Creek Project Team

Alan Levine
Coast Action Group

Darcie Mahoney
Registered Professional Forester

Linda Perkins
Salmon Creek Project Team

Nicholas Pinette

The Conservation Fund's North Coast Staff

Jonathan Brunner
Forester

Lauren Fety
Forest and Climate Project Manager

Lynsey Kelly
GIS Specialist

Scott Kelly
Timberland Manager

Holly Newberger
Program Manager

Barbara Ortega
Bookkeeper

Aaron Sawyer
Forester

Evan Smith
Senior Vice President, Conservation Ventures

Blake Tallman
Forester



WELCOME

We welcome **Aaron Sawyer**, Registered Professional Forester to the North Coast Team!



FAREWELL

After over 17 years of working with the North Coast team, **Lynsey Kelly**, our GIS Specialist, is heading off to new adventures. We wish her the very best.



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**

14951A Caspar Road | Caspar, CA 95420

707-962-0712 | hnewberger@conservationfund.org

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