

# FOREST FUTURES

A Regenerative Solution



## A POSITION PAPER OF THE TAHOE TRUCKEE COMMUNITY FOUNDATION

In 2016, our community foundation began exploring the tree mortality issue that was creeping north within the Sierra Nevada mountain range, with a concerned eye on it spreading to our beautiful Tahoe region. We wanted to understand how to prevent the bark beetle infestation that was plaguing the forests and had killed more than 16 million trees. In 2017, a series of catastrophic wildfire seasons began. These fires broke historical records of scale and destruction starting with the Thomas Fire, then the Mendocino Complex, eventually the North and August Complex Fires where we saw lives, homes and community structures destroyed. More recently with the Dixie and Caldor Fires flanking the Tahoe Truckee region, our focus on saving our trees turned to saving our community. Our learning journey has brought us to an understanding that those two things are one and the same.

Over the course of the last four years, the Tahoe Truckee Community Foundation sought the expertise of a myriad of players to inform a comprehensive understanding of the issues and identify possible solutions to protect our forested communities. We learned from scientists, environmentalists, foresters, policy makers, entrepreneurs, venture capitalists and impact investors. Through a series of gatherings, both in person and virtual, we began to put together the pieces of a holistic strategy that guides our energy and efforts today.

## THE STATE OF OUR FORESTS

We often say that a healthy forest is one that you can gallop a horse through. It conjures up an image of riding a horse through a forest that isn't so dense that you are running into trees. It also provides a visual reference as you look around at our forests and begin to see that there are very few spots in which you and your horse can frolic very easily. Once your eyes can recognize the unhealthy density of our forests, you begin to see the implications. Such as implications to our watershed where each tree acts like a straw and takes vital water out of the ecosystem that wildlife, farmers and communities rely upon. Available water for communities everywhere are dependent on healthy forests that are often far from their homes.

How we got here can be explained in two very simple ways. First, we have suppressed natural wildfires for more than a century in the forests as communities expand further into forests. Second, we have lost the economic engines that ensure basic infrastructure to manage forests like saw and paper mills, biomass facilities, large equipment and a workforce. Basically, the entire west is now left without a large-scale way to process the wood coming out of the forests.

With no place to take the lumber, public and private landowners have had to rely mostly on prescribed, in-forest burning of wood that has been stacked into piles from thinning projects. Yet, the scale and number of dead wood piles is too large for prescribed burn efforts to keep pace. This has resulted in our forest communities surrounded by piles and piles of dead wood. Some piles are the size of a Volkswagen bus, others are the size of hotel ballrooms. All the piles are emitting methane, a gas worse than carbon, and many of the piles are large enough to self combust.

In 2020, over 4 million acres of land burned in California. The impact of these megafires is felt statewide—in water quality and quantity, biodiversity, carbon and climate outcomes, human health, economic devastation, community and ecological resilience, and much more. With the growing destruction from mega-fires, the cost of recovery efforts, and the losing battle to reduce carbon emissions, our strategy must be comprehensive and inclusive with the ability to scale beyond one community or one forest.

The Tahoe Truckee community is positioned in the middle of the Sierra Nevada which is one of the world's most diverse watersheds, providing nearly 60% of the state's water supply. The clarity of Lake Tahoe is at risk from the effects of catastrophic wildfire. Our forests are in danger. They are overcrowded with piles of dead and dying trees and branches. Unverified rumors have estimated the piles that surround the Tahoe region between 400,000-800,000 piles. Nearly the entire Tahoe Truckee region is classified as Very High or High Fire Hazard Severity Zones by CalFire. In addition, the region has severe tree mortality, and limited evacuation routes. Without an escalation in forest restoration in our community, the consequences of a wildfire would be devastating.

## THE ROLE OF COMMUNITY FOUNDATIONS

Since the Thomas Fire in 2017, community foundations throughout the state have played a role in relief and recovery. With donors giving directly to our organizations, we have managed grant distribution to on-the-ground nonprofits that are serving the needs of the communities. In doing so, community foundations have built new capacity in getting funding out swiftly and strategically, in building inclusive networks across diverse stakeholders and capturing the learnings to better prepare and execute in the future. With each fire, we grow smarter in preparation, relief and recovery.

For nearly 25 years, the Tahoe Truckee Community Foundation (TTCF) has strategically deployed grant dollars to our local nonprofits. Alongside this work, we have built a sophisticated toolkit in administering public funds, community-based loans, and investments, all aligned with our mission. This transformative way of structuring financial capital is at the heart of how we can leverage available financial resources to tackle some of the toughest challenges that our communities face.

TTCF has built readiness in strategy while attracting resources to the initiatives that we want to impact. Going beyond the traditional role of grantmaker and donor advised fund manager, we measure our success by impact on the ground and not assets under management. In fact, since 2017, we have successfully helped attract and guide more than \$70 million to areas focused on family strengthening, workforce housing and forest health. Those dollars have flowed through us and alongside us. They represent a full spectrum of financial capital in grants, loans and investments, and oftentimes blended.

## FOREST FUTURES - A REGENERATIVE SOLUTION

With collaboration, innovation and regeneration as our guiding principles in this work, we have identified three areas of impact that must simultaneously be pursued to ensure that our approach is comprehensive and successful.

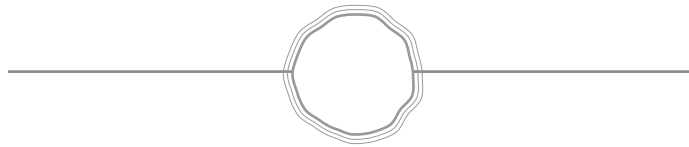
**PROTECT COMMUNITIES:** With our recent fire season, it is abundantly clear that the preventative measures of fuels management and forest thinning are effective in protecting community lives, structures and homes. Defensible space around homes, setting up early detection systems, clearing fire breaks to surround communities and improving evacuation routes, are important and urgent preventative needs. Community understanding and buy-in along with adequate financial resources are key to our success.

**BUILD INFRASTRUCTURE FOR A FOREST ECONOMY:** New solutions and industry must be built to ensure that the wood from fuels management can be transported, sorted and processed. New equipment and a trained workforce will ensure that the volume of woody biomass can be removed from our neighborhoods and surrounding forests.



**ACCELERATE MARKET SOLUTIONS:** Forests are constantly growing and regenerating. With the right approach, our forests can be an ever-renewing economic generator for our communities. Opportunities can be found in new technologies, business models and innovations to utilize our wood and generate more co-benefits for our communities and the planet.

Communities around the world will be facing their own version of climate action. For ours, and many others, it will involve a strategic approach to forest management. We believe that communities who live closest to and within the forests are best positioned to mobilize a regional approach across multiple stakeholders. Our success will play a role in economic resilience, mental and physical wellbeing, and even housing opportunities. Our Forest Futures campaign is a comprehensive, inclusive and a sustainable approach to our future. Indeed, the future of our forests is our future.



**ABOUT US:** The Tahoe Truckee Community Foundation (TTCF) connects people and opportunities, generating resources to build a more caring, creative, and effective community. TTCF has served North Tahoe-Truckee since 1998. Using our knowledge and diverse relationships, we convene partners around our community's top issues to inspire giving and lead the way. By partnering with donors and nonprofits, we build philanthropy and nonprofit resiliency in our region. TTCF launched Forest Futures to convene stakeholders, build community engagement and create bold new solutions to improve forest health and wildfire resilience and protect our communities.

## RECOGNITION AND GRATITUDE:

The Forest Futures Program was formulated with the expertise of many individuals and organizations. We are deeply grateful to the individuals who have inspired us and helped inform our understanding and strategy.

### FOREST FUTURES ADVISORY COMMITTEE:

The Forest Futures Advisory Committee was formed in early 2019 for one year, to help oversee the direction of program development. We are grateful for their input and expertise.

Chris Kolhardt, Software Engineer

Erin Kilmer, Executive Director + Chief Impact Officer at Beneficial State Foundation

Graeme Armstrong, International General Manager, Innovation leader and Chemical Industry Expert

Geoff Edelstein, Co-Founder, Principal and Portfolio Manager of Granite Investment Partners, LLC

Hannah Sullivan, Co-Founder and Partner of Emerald Bay Wealth Management

Jamie Allison, Executive Director at Walter & Elise Haas Fund

Kristin York, Vice President of Business Innovation, Sierra Business Council

Lauren OBrien, Vice President of Sales & Marketing, Cloudatastructure, Inc.

Megan McTiernan, Social Impact Advisor

Nancy Huang, Chief of Staff at Draper Richards Kaplan Foundation

### PROJECT CONSULTANTS:

There were two key strategists, subject matter experts and project consultants that were integral in shaping the Forest Futures program with us.

Teal Brown Zimring, Managing Partner of Galvanize Partners

Robert Suarez, Co-Founder and Director of Forest Ventures Lab



## PRESENTERS AND THOUGHT-PARTNERS:

TTCF has learned from many different stakeholders in the field. We are grateful to the following individuals who have helped shape our thinking through conversations, stakeholder meetings and gatherings, Forest Walks, and the Forest Futures Salon Series.

Barnie Gyant, Associate Deputy Chief for National Forest System  
Bob Hambrecht, Partner at Allotrope Partners  
Brandon Collins, UC Berkeley and US Forest Service fire ecologist  
Brenna Taylor, Chief Fellowship Officer, Activate  
Brett Dickson, PhD, President and Chief Scientist, Conservation Science Partners  
Brian Estes, CAL FIRE Unit Chief, Nevada-Yuba-Placer Unit  
Chris Larson, Chief Executive Officer & Chief Investment Officer, New Island Capital  
Dan Porter, Forest Program Director, The Nature Conservancy  
Dan Tomascheski, Vice President, Timber Resources, Sierra Pacific Industries  
Dan Winterson, Program Officer, San Francisco Bay Area, Moore Foundation  
Daniel Sanchez, Joint Institute for Wood Products Innovation Academic Member, UC Berkeley  
Danielle Bradfield, Registered Professional Forester, Owner, Feather River Forestry  
Eli Ilano, Forest Supervisor, Tahoe National Forest  
Eliza Tudor, Executive Director, Nevada County Arts Council  
Elliott Vander Kolk, Regional Forester, Sierra Nevada Conservancy  
Evan Ritzinger, California Program Coordinator - Tahoe Area, National Forest Foundation  
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Jerusha Hall, Environmental Planner, Northstar California  
Joe Caves, Principal and Founder, Conservation Strategies Group  
Joe Desmond, Advisory Council, Joint Institute for Wood Product Innovation and former Chairman, California Energy Commission  
Johanna Wolfson, Board Member, Prime Coalition  
John Svahn, Executive Director, Truckee Donner Land Trust  
Jonathan Cook-Fisher, District Ranger for the Truckee Ranger District on the Tahoe National Forest  
Jonathan Kusel, PhD, Executive Director, Sierra Institute  
Katie Harrell, Joint Institute for Wood Products Innovation Staff Member, Board of Forestry and Fire Protection  
Lisa Wallace, Executive Director, Truckee River Watershed Council  
Matt Millar, Sierra Nevada Program Senior Manager, National Forest Foundation  
Michael Llewellyn, Artist in Residence, Nevada County Arts Council  
Pat Manley, Supervisory Biological Scientist, Program Manager, USFS Pacific Southwest Research Station  
Patrick Wright, Director, CA Wildfire and Forest Resilience Task Force  
Peter Minor, Director of Science & Innovation, Carbon180  
Stan Keasling, Chief Executive Officer, Rural Community Assistance Corporation  
Steve Frisch, President, Sierra Business Council  
Steve Mueller, President & CEO, American Renewable Power, LLC  
Todd Gartner, Director, Cities4Forests and Natural Infrastructure, World Resources Institute  
Tom Hobby, President & Managing Member, Yosemite Clean Energy  
Tony Chang, PhD, Data Scientist, Conservation Science Partners  
Zach Knight, Co-founder and Partner, Blue Forest Conservation  
Zach St. George, Author of The Journey of Trees

The Forest Futures Program supports larger planning priorities in forest health and wildfire resilience. TTCF would like to recognize the following list of resources that are instrumental in forward progress and which are not exhaustive.

Placer County Sustainability Plan  
Nevada County 2019 Wildfire Preparedness Action Plan  
California's Wildfire and Forest Resilience Action Plan  
Watershed Research and Training Center RFFC Mid-Program Report  
Sierra Nevada Conservancy Strategic Plan  
Tahoe Central Sierra Initiative Framework for Resilience  
California Water Resilience Portfolio 2020  
2021 CA Department of Conservation Regional Forest and Fire Capacity Program Guidelines  
California Comeback Plan  
2021 Federal Infrastructure Bill  
Federal Build Back Better Act  
Biomass in the Sierra Nevada  
Joint Institute for Wood Products Innovation Evaluation of Research Gaps to Support Wood Products Innovation

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We have a responsibility to protect our communities from the threat of wildfire and to ensure our forests are healthy for generations to come. TTCF's Forest Futures Initiative will support efforts to increase the pace and scale of forest restoration and wildfire resilience in the Tahoe Truckee region. Through innovative financing solutions, including grants, challenge prizes and debt and equity investments, Forest Futures will help fill funding gaps in the forestry industry. By focusing our impacts on protecting and restoring communities, building infrastructure for a forest economy, and accelerating market solutions, we will build capacity for our partners to plan and implement forest restoration projects.

