# FORESTLIFE

#### NEWS & INSIGHT FROM THE PACIFIC FOREST TRUST

## Realizing the Vision for Conservation Across Boundaries

2015 Annual Report

SUMMER 2016

### Realizing the Vision for Conservation Across Boundaries

2015 Annual Report

Restoring and maintaining older, more complex forests creates and protects habitats for Pacific fishers and northern spotted owls.

Life is returning in two forests that burned in recent wildfires. New trees, wildflowers, and animals are reclaiming their homes with the help of Pacific Forest Trust, landowners, and other partners.

p.6 Wildlife's Modest Champion

In ten years, one million acres of natural land was lost to development in CA, OR, and WA

Restoring

**Flourishing** Fore



Over 200 at risk species of fish, wildlife, and plants are in the 12-million-acre Klamath-Cascade

p.12 Realizing the Vision for Conservation Across Boundaries California's Sierra Nevada forests have been drastically altered by climate change and other stressors. Through our participation on the Tree Mortality Task Force, we are working to reduce tree dieoff and improve forest health.

p.16 Tree Mortality & Forest Resilience

### FORESTLIFE

#### THE NEWSLETTER OF PACIFIC FOREST TRUST

#### **BOARD OF DIRECTORS**

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Pacific Forest Trust's mission is to sustain America's forests for all their public benefits of wood, water, wildlife, and people's well being, in cooperation with private landowners and communities.

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#### CONNECT WITH PACIFIC FOREST TRUST:



## **President's Letter**



Our relationship with fire is one of our most primal. We love it in our fireplaces or as a prescribed burn. Fire renews soil, promotes new flowers and trees, and reduces the spread of many pests and diseases. But, when fire forces evacuations and burns homes, we hate it. The impacts and costs can be devastating.

Whether we love it or hate it, fire is integral to our landscape. For tens of thousands of years, our forests and meadows were shaped by fire. Native

Americans set fires purposefully and lightning strikes regularly caused random fires. Now, for almost 100 years, we've actively suppressed fire, and development has broken up the landscape through which fire once burned frequently, dictating fire fighting policies.

We're seeing the impacts of that fire suppression and development as intense fires burn out of control and surge through our towns, fields, and forests. A fire that might have been a low-intensity ground fire 75 years ago is now an inferno fueled by dense brush, home propane tanks, and small trees packed into crowded acres.

Trying to prevent fire has "backfired" in many ways. We need a new approach: learning to work with fire. Increasingly, scientists and land managers tell us we need more frequent, lower intensity fires back on the landscape for all the good things fire does.

How do we do that? There are no easy answers, but there are some things we can do and think about:

- Change our public policies. Not all fires should be put out by the state or federal agencies—some in remote areas could do more good than harm.
- Re-establish and fund state-run prescribed fire programs at a large scale—and combine this with fuels reductions.
- Focus development in settled areas, reduce sprawl and low-density housing in fire-prone areas, and ensure fire insurance reflects the real cost of fighting fires.
- Manage for natural vegetation patterns and species, especially when restoring burned areas like the Campstool Ranch and Goose Lake forests (page 4).

It's time we define a new relationship with fire because fire is here to stay.

Jamie A. Nayhm

### **Restoring Flourishing Forests**

After a wildfire passes, life returns in new and unexpected ways, as animals creep out of their hiding places, birds return to make new nests, and flowers—with their seeds often lying dormant for years—find life under the sun.

Forests are resilient and with time they can grow again. However, sometimes they need a little help. Two of our conserved working forests, Campstool Ranch and Goose Lake, were affected by recent wildfires. We're collaborating with the landowners of each property to help with restoration and recovery.



#### **CAMPSTOOL RANCH**

In Calaveras County, California, people are still reeling from last September's Butte Fire, which burned over 100 square miles. This was the fire that landowner Tim Lane spent his life dreading. When it hit, he found himself in the middle of it. Thanks to his brave work with the CAL FIRE crews, when this fire roared up the Calaveras River Canyon they stopped it on his property, Campstool Ranch.

In 2013, Tim and his family granted a Working Forest Conservation Easement to Pacific Forest Trust on this 2,170acre property. While their homestead and others nearby were saved, two-thirds of their property burned. Undaunted, Tim got right to work with his forester and the Natural Resources Conservation Service. Last winter and spring, a logging crew removed many of the dead conifers, leaving other standing dead trees to provide shelter and homes for wildlife.

New life emerged this spring. The burned hillsides turned green with grass planted to prevent erosion. Many oaks began to re-sprout. And, acres of purple lupine dotted the ranch, volunteering to help restore the soil with nitrogen and prepare it for the planting of new trees.



### **GOOSE LAKE**

This April, a crew of 50 hand-planted 712,000 seedlings, beginning the restoration of the Goose Lake Working Forest, which burned in the 2012 Barry Point Fire. When complete, this restoration project will span 35 square miles. The crews will continue planting this fall and again next spring.

This multi-year partnership between Collins and Pacific Forest Trust is supported by a diverse group of funders and partners—all united in the effort to restore productive timberland and jobs in Modoc County, California, as well as habitat for great grey owls, Rocky Mountain elk, and pronghorn antelope. The Wildlife Conservation Board, CAL FIRE, the Sierra Nevada Conservancy, and the U.S. Fish and Wildlife Service generously matched Collins' contributions to fund the restoration of this forest.

Prompt reforestation is critical to maintaining water quality and preventing erosion flowing into the Pit River Watershed, which is one of California's primary sources of water for people and agriculture. The Working Forest Conservation Easement, gifted to Pacific Forest Trust by Collins as part of the reforestation project, will guide the property's long-term management for generations to come.

The cycle of life continues.

### **Heritage & Pioneers**

### "PACIFIC FOREST TRUST IS AN INNOVATIVE LEADER, BRINGING ABOUT COMPATIBILITY BETWEEN CONSERVATION AND BUSINESS INTERESTS."



Harry and Charlotte Turner have deep roots in California and they are passionate about helping conserve the state's natural heritage and richness, which they see as essential for its future. They share Pacific Forest Trust's vision of a practical, robust conservation economy that sustains private lands stewardship.

### How did your roots influence your feelings about forest conservation?

**Harry:** I was raised in Los Angeles, San Joaquin, and San Diego, which are very arid regions. In San Joaquin, I was very aware of water shortages due to drought and dryness. That's when I knew life would not be possible without access to water. Today, Sacramento-south seems to be living and dying on the health of the north state's forested watersheds.

**Charlotte:** I grew up in Yreka, California, when lumber was a big part of the economy for Siskiyou County. I knew many people who drove logging trucks for the local sawmill. Looking back, I miss the freedom and opportunities I had to climb trees, hike, go horseback riding, and explore. They are treasured memories for me. I think my rural upbringing helped me connect with PFT's mission to preserve the beauty and tranguility I had at my doorstep.

### What do you think are some of the greatest challenges for conservation in the coming years?

**Charlotte:** When I toured the Harts' Butte Creek Meadows property last year, I could see the passion that Blair, Susan, and their whole family had for the work that they do to conserve their land. One of the biggest challenges I see is

- HARRY TURNER

identifying and helping people understand how they can contribute to the well-being of the state, like the Harts have. Northern California is so important for our water resources. We need to share the successes of landowners to encourage others to conserve their lands as well.

**Harry:** Looking to the next decades, the greatest challenge arises from global warming—access to water for drinking and agriculture locally, regionally, and globally. We live in an arid state that supports nearly 40 million people, and water is increasingly difficult and expensive to access. From my experience, I'd like the leaders in our state to use another tool—investing money in watersheds as a cost effective way to help us all for the long run.

#### How did you first learn about PFT?

We learned about PFT through our daughter, Kaarsten. She's now the Vice President of Ecological Services for The Forestland Group in North Carolina and has been involved in developing their carbon offset projects for California's carbon market. The Forest Land Group was a sponsor of PFT's annual fundraiser, Forest Fete, and Kaarsten brought us to one of PFT's other events. She first learned about PFT some 20 years ago and has really followed the ecosystem services markets and working lands conservation work PFT has done.

What do you find compelling about PFT's work and its impacts?

#### "What appeals to me is the organization, efficiency, and passion PFT demonstrates to meet its goals." - Charlotte Turner

**Harry:** What's compelling to me is the execution of PFT's mission through the integration of their education, policy, and advocacy programs, and their direct interactions with private landowners. As an investor and taxpayer, I really like how PFT uses structured vehicles like Working Forest Conservation Easements because they are financially efficient for the landowners and the public.

### Wildlife's Modest Champion



Paul Henson has worked to conserve habitat for myriad species for over 25 years. Currently, he leads conservation efforts for northern spotted owls and Pacific fishers, as the State Supervisor in Oregon for the U.S. Fish and Wildlife Service (USFWS). We caught up with him to talk about these animals

as well as the USFWS's decision to not list the Pacific fisher as "threatened" under the Endangered Species Act (ESA).

#### How did you get your start in wildlife conservation?

I started as a chemistry major but found my college roommate's biology assignments more interesting. I left school in New York and moved to California where I traveled through beautiful and wild Big Sur. I grew an appreciation for wild places and earned a Bachelors degree in Environmental Studies and a Ph.D. in Wildlife Conservation. Throughout my education and career, I've worked radio tracking sea otters up and down the California coast, studying breeding behaviors of trumpeter swans in Alaska, and conserving habitat for Pacific fishers, northern spotted owls, and other species in Oregon.



### How did the USFWS arrive at the recent determination to not list the Pacific fisher?

There are real and pressing management concerns for the fisher, but those concerns don't necessarily mean that the species is threatened with extinction now or in the foreseeable future, which is what must be shown in order for a species to be listed under the ESA. In the end, while we identified several stressors on fishers (e.g., loss or fragmentation of habitat in certain areas as well as toxicants such as anticoagulant rodenticides often used in marijuana cultivation and widely distributed throughout fisher habitat), we have not observed any significant negative effects on overall fisher population levels. Fisher populations have remained relatively stable over the past decade or so, and there are significant amounts of suitable fisher habitats scattered across Washington, Oregon, and California that are protected.

### What voluntary conservation actions can private landowners take in order to help fisher recovery?

"Managing as much as possible to mimic natural forest processes is probably the best thing one could do to help conserve fisher, spotted owl, and other forest species."

There are many things private landowners can do to support fisher conservation, including: 1) maintaining or developing fisher habitat on their land; 2) supporting ongoing fisher surveys and research efforts by allowing property access to surveyors and researchers or providing staff, equipment, and financial support; 3) supporting fisher reintroduction efforts; and 4) avoiding or minimizing the use of anticoagulant rodenticides and other toxicants that may harm or kill fishers. Landowners may voluntarily enroll in candidate conservation agreements with assurances to receive regulatory certainty should fishers ultimately become listed under the ESA.

Despite management concerns for this cat-like member of the weasel family, Pacific fishers are not listed under the Endangered Species Act.

## What future challenges do you see for the Pacific fisher, northern spotted owl, and other forest-dependent species?

One of the biggest challenges in managing forest species into the future arises from the effects of climate change on forest ecosystems and associated species. While the evidence indicating climate is changing is unequivocal, the effects of climate change on various ecosystems at a more local level are much more difficult to predict. The degree and rates of forest change that could occur and the capacity of forest species to respond to those changes are, at this point, untested hypotheses.

Another important issue is updating state forest practices and regulations to reflect the best science concerning the conservation of publicly owned natural resources that occur on private lands, while still enabling private landowners to make a reasonable economic return from their lands. One important question is whether forest practices can be modified to better emulate natural forest processes and forest development life stages on public and private lands.

### How has regulation affected northern spotted owl recovery? What factors influence their survival?

The ESA listing of the spotted owl brought federal land managers and the USFWS together to implement the Northwest Forest Plan, which in turn helped conserve the last best remaining habitat on federal lands. Although there are some areas where lack of spotted owl habitat is still limiting population expansion, the most pressing threat to spotted owls today is competition from the recently arrived barred owl. The barred owl is likely the major factor responsible for the spotted owl's continued population decline.

#### You've said that the 2010 Safe Harbor Agreement has the potential to be a pivot point in northern spotted owl recovery in Oregon. What results have we seen from this?

The Oregon Department of Forestry has enrolled 13 properties totaling about 3,200 acres into the Safe Harbor Agreement. In addition to maintaining existing spotted owl habitat, these landowners will be managing their forests to create older and more diverse forest stands than would otherwise be developed under more typical forest management (tree plantations). These include uneven-aged management, adding tree diversity, and creating additional snags and downed wood. So far, about 1,792 snags and 1,314



Paul Henson helped develop the pioneering Safe Harbor Agreement to protect northern spotted owls and landowners in Pacific Forest Trust's California Van Eck Forest in 2008.

additional downed wood logs have been created, which adds diversity and generates habitat for spotted owl prey.

### What voluntary conservation actions can private landowners take to help spotted owl recovery?

Some simple actions include: 1) managing for diverse, uneven-aged forests; 2) retaining more downed wood; 3) thinning versus clear-cutting; and 4) providing habitats for foraging, roosting, and dispersal. These actions will provide landscape diversity and more suitable habitat for spotted owls and their prey. Small landowners can also support spotted owls that are nesting on adjacent or nearby lands that are being specifically managed for spotted owls by providing habitats that allow for foraging, roosting, and dispersal.

### What are the most rewarding things about your career? What are the biggest challenges?

The most rewarding moments in my career were closely tied to my biggest challenges, and those challenges actually turned into big rewards for species and landowners. Many endangered species are found on private lands. However, landowners often see their presence as a liability with political and financial encumbrances. We try to make endangered species a non-issue through the Safe Harbor Agreement and partnerships. If landowners keep habitat in baseline condition, they won't be regulated if they build a barn or another structure. Through these protections and assurances, we give landowners peace of mind, which promotes conservation. When you pull that off, it's super rewarding.

## PACIFIC FOREST TRUST 2015 Partnerships ANNUAL REPORT & Perseverance

#### WHAT DOES IT TAKE TO PROTECT HERITAGE, A WAY OF LIFE, OR A FOREST? PARTNERSHIPS AND PERSEVERANCE

Partnerships—local and global—make it possible to protect our vastly important and globally significant forest landscapes. From landowners like Jud Parsons (pictured below) who is partnering with us to conserve his family's working forest, to the policy-makers who facilitate protection of our forest watersheds that supply drinking water to millions, people and partnerships help us achieve large-scale conservation goals benefitting the entire public and landscape. By connecting dedicated innovators, donors, landowners and managers, agencies, and conservationists we succeed in cultivating and catalyzing good ideas into positive, practical policies. Together, with your support, we can continue conserving America's forests for wood, water, wildlife, and well-being.

#### THANK YOU FOR YOUR STEADFAST SUPPORT—YOU MAKE OUR WORK POSSIBLE!



#### **EXPANDING PRIVATE FOREST CONSERVATION IN OREGON**

To help conserve Oregon's globally renowned biodiversity, we are pioneering a path forward together with willing landowners and agencies, developing a new approach to conserving working forests. Wildlife and plants cannot rely solely on public lands to survive and thrive, especially as climate change advances. Private forests in Oregon, like those of the Parsons and Merritts, as well as Pacific Forest Trust's 7,200-acre Van Eck Forest, provide models of enduring conservation, which restore and maintain a full range of natural forest values. Pacific Forest Trust also joined and now serves on the Board of Directors for the Coalition of Oregon Land Trusts, to further improve and advance land conservation in the state.



### FORESTS ARE CENTRAL IN HISTORIC CLIMATE AGREEMENT

The Paris Climate Agreement marked a historic turning point in the fight against climate change. Now, not only is this fight a global priority, forests are recognized as essential to solving the climate crisis,

offsetting emissions, protecting water supplies, providing refuge for species adapting to changing conditions, and sustaining rural economies.

agreed it is imperative to limit ongoing global temperature rise to under 2°C by aggressively reducing net CO<sub>2</sub> emissions.



of those 195 will be leveraging the climate-healing powers of forests to do that, alongside reductions in emissions from fossil fuels.

### CALIFORNIA, A GLOBAL LEADER FOR FORESTS AND CLIMATE CHANGE

Prominent in Paris were the contributions and examples of real action by individual cities and states, most notably, California. This state was the first in the world to include forests in its groundbreaking economy-wide climate



policy—Assembly Bill 32—and the first to develop compliance-grade forest carbon offsets. Pacific Forest Trust led these efforts and established the first such offset project in the California Van Eck Forest. Forest carbon offsets, part of the global carbon market, play an important role in meeting climate commitments. California's cap and trade approach, specifically its forest carbon offset program, was on full display in Paris. It was recognized as the most robust carbon market, globally.



# 241,135

MIGUEL VIEIRA

compliance offset credits were issued for the Van Eck Forest in California in 2015. Van Eck was the first early action project for the state's voluntary emissions reductions program and a model for how landowners can generate financial returns when managing their forests to advance climate solutions.



### **CONSERVING VOLCANIC FORESTS**

Pacific Forest Trust is partnering with the family-owned Michigan-California Timber Company to conserve over 5,000 acres of productive forest and wildlife habitat in the volcanic landscape surrounding Mount Shasta. This project will connect key wildlife corridors, while protecting jobs in the woods and promoting recreational opportunities.



watersheds that feed the Sacramento River in northern California provide the vast majority of the state's drinking and irrigated agricultural water. That's drinking water for 28 million people, irrigation water for 8 million acres, and over 80% of freshwater for the San Francisco Bay.



We are making significant progress toward increasing water security for millions across the state, developing and advancing a new water policy under Assembly Bill 2480, authored by Richard Bloom, (D) Santa Monica. AB 2480 incorporates watersheds into water system infrastructure and provides the basis for improving watershed health and resilience under climate pressures.



## PROTECTING THE SIERRA VALLEY'S NATURAL AND WORKING HERITAGE

Visually stunning and in close proximity to Reno, Nevada and Lake Tahoe, the natural and working heritage of the Sierra Valley is changing due to development and rapid population growth. Partnering with the Martinetti family, we are expanding conservation of a corridor of protected working lands along the western edge of the Sierra Valley and working to protect over 100 years of stewardship of their 610-acre ranch. This will be Pacific Forest Trust's 6th conservation project in the Sierra Valley—cumulatively protecting over 15 square miles of forests and meadows.



### PROTECTING WATER SOURCES AND A FAMILY'S HERITAGE

On the slopes of Mount Shasta in northern California, the verdant Butte Creek Meadows Working Forest is now conserved forever. Conservation of this 3,468-acre property, owned and operated by the Hart family for over 150 years, secures a corridor for wildlife, enhances habitat for hundreds of species, and protects vitally important sources of water.



### CONSERVING FORESTS TO SAVE A KEYSTONE SPECIES

Gray wolves returned to California, marking the first appearance of the species since becoming locally extinct nearly 100 years ago. Their return and presence on land conserved by Pacific Forest Trust demonstrate the benefits of our work to conserve whole forest landscapes, connecting public and private land to save wildlife, their homes, and places to roam.

### DEMONSTRATING A COMMITMENT TO EXCELLENCE



Pacific Forest Trust achieved independent accreditation for a second time, a national mark of honor and distinction in land conservation. This honor, awarded by the Land Trust Accreditation Commission, recognizes our continued commitment to meet rigorous quality standards and ensure permanence in the conservation of private working forests for their many benefits.



### PARTNERING TO IMPROVE FOREST HEALTH AND RESILIENCE

Pacific Forest Trust is partnering with Collins, the Wildlife Conservation Board, and CAL FIRE to carefully restore an expansive landscape scorched by an intense wildfire. We are planting 3 million trees and other native plants in a multiyear effort to ensure enduring, large-scale conservation and restoration of over 35 square miles.



Donations: 24%

Foundation Grants: **39%** 

Fee For Service & Other: **44%** 

Investments: **-7%** 



### WE'RE ONLINE IN A NEW RESPONSIVE DESIGN

We launched an entirely new website, complete with fresh content and visuals in a mobile-friendly design. **Visit us at:** 

www.pacificforest.org



**JSES OF FUNDS** 

Administration: **3%** Fundraising: **4%** 

Programs: 93%



2015 ANNUAL REPORT

### Realizing the Vision for Conservation Across Boundaries

### PUBLIC-PRIVATE COLLABORATION BENEFITS WILDLIFE, WATERSHEDS, AND WORKING LANDS IN THE MOUNT SHASTA HEADWATERS CONSERVATION AREA

It can take a week to hike all the way around majestic Mount Shasta, crossing a rugged landscape that blends the Shasta-Trinity National Forest with commercial timberland and family ranches. From its vistas, you can easily see that regardless of ownership, it is one awesome place.

The massive, 14,179-foot, glacier-clad volcano forms the hub of an eco-regional wheel in northern California. Standing tall where the Cascade Mountains meet the Modoc Plateau, Klamath Mountains, and Great Valley, Mount Shasta and its surrounding landscape are home to world-class biodiversity, headwaters of major waterways, and highly productive forests.

Because of its great topographical variety, plentiful springs, and a confluence of volcanic, sedimentary, and granitic soil types, species richness in this area is among the highest in the state. Nearly 200 at-risk species can be found in the habitats on and around Mount Shasta. Moreover, the biodiversity and crossroads location make this area the "Grand Central Station" for wildlife on the move as they seek to adapt to a changing climate.

Seven watersheds originate from Mount Shasta's summit, with centuries of glacial melt feeding the huge springs that circle its base. These include major source headwaters for people and agriculture nearby and as far away as San Diego. The Sacramento and Shasta Rivers begin from these flows, as do the McCloud River, Squaw Valley Creek, and Ash Creek. These cold, clear waters support a world famous trout fishery and may prove to be vital for the survival of native fish as California warms and dries. People, too, have thrived in this region for thousands of years, enjoying its beauty and natural abundance. Mount Shasta is a major hub for both outdoor recreation and timber production.

The Mount Shasta Headwaters Forest Conservation Initiative embraces three million wooded acres that are a patchwork of public and private lands, with the Klamath and Shasta-Trinity National Forests intermixed with private working forests. Ten years ago, Pacific Forest Trust decided to focus our work on keeping this rich, productive landscape and its key watersheds intact and functional, both ecologically and economically. We have been building partnerships with landowners, agencies, scientists, and communities to conserve these globally significant wonders in a lasting way, for all their public benefits.

Working together, we realized that strategically located conservation easements on private working forests could knit the patchwork together, amplifying their impact by creating lasting connections among large, natural blocks of land in public ownership. These connections are critical to ensuring that the greater landscape remains rich and resilient in the face of change—providing people and critters with the resources we all need. Mount Shasta, as seen from the McCloud Dogwood Butte property. This is Pacific Forest Trust's newest Working Forest Conservation Easement and it is conserved in partnership with Hancock Timber Resource Group.

This big vision is now shared by many partners who have worked with us to slowly but surely put the pieces together for landscape-scale impact. Our collaborations have established conservation easements on five properties totaling 33,700 acres in the Mount Shasta Headwaters region-with two more projects, covering 6,350 acres, in progress. These projects collectively protect and enhance 62.5 square miles of working forests, rangeland, meadows, and streams—an area nearly the size of Washington, D.C. They also bridge key gaps within the Shasta-Trinity and the Klamath National Forests, providing essential north-south migratory connections for wildlife across two million acres around Mount Shasta. This kind of permanent connectivity is a key strategy for the state's climate adaptation efforts. And, these conservation easements expand the network of outdoor recreation opportunities across the region.

None of this voluntary conservation would be possible without close cooperation with landowners and state agencies—in particular, our work with the California Department of Fish and Wildlife—and the support of the local communities, elected officials, and federal agencies. These conservation easements have been funded by the Wildlife Conservation Board, Natural Resources Agency, and Department of Water Resources (largely out of Proposition 84 bond funds approved by California voters), as well as other state grant programs, charitable foundations, and generous gifts made by the landowners themselves.

Mount Shasta plays a big role in California's well-being. Even if you live far away, your life is enriched by conservation of the Mount Shasta Headwaters region. Californians near and far benefit from more secure sources of clean water, a more stable climate, more abundant wildlife, more sustainable wood products, and more inspiration. With all of the generous support and investments, we're making a lasting difference on the landscape, together.

**Top.** Tall timbers stretching skyward in the Mount Shasta Headwaters Conservation Area.

**Middle.** Pacific Forest Trust and partners celebrating the conservation of McCloud Dogwood Butte at its dedication.

**Bottom.** A stream winding its way through the Butte Creek Meadows Working Forest.





### **Explore Mount Shasta's Headwaters**



From improved water security and wildlife habitat to sustained wood supplies and local economies, each and every property conserved in partnership with Pacific Forest Trust makes a positive difference for all who depend on them.

### **McCloud Dogwood Butte**

CONSERVED IN: 2016 ACRES: 12,646 WATERSHED: MCCLOUD, UPPER SACRAMENTO

McCloud Dogwood Butte Working Forest Conservation Easement greatly expands the protection of the McCloud River watershed, almost doubling total conservation of this key source of cold, clear water for state supplies. This voluntary and collaborative project between Pacific Forest Trust and Hancock Timber Resource Group benefits water, wildlife, public recreation, and the local economy.

McCloud Dogwood Butte's abundant water, varied soils, and topography make the area rich in biodiversity. By preventing future subdivision and development, while ensuring long-term management for its natural values, McCloud Dogwood Butte's conservation permanently secures a critical migratory corridor for wildlife between gaps in the Shasta-Trinity National Forest and enhances habitats for 127 species.



### **Mount Shasta Conservation Area**



### **Our Upcoming Conservation Projects**



### YOU CAN HELP US CONSERVE THESE FORESTS BY:

- Learning more about the Mount Shasta Headwaters region and its importance.
- **Donating to Pacific Forest Trust's Stewardship Fund**. This ensures we have the means to monitor these conservation easements forever and be an active partner in restoration with our landowner partners.
- Supporting the development of new conservation projects.
- Advocating for continued state funding to protect working forests like those in the Mount Shasta Headwaters.
- **Enjoying the great outdoors** in Siskiyou and Shasta Counties—rafting, hiking, climbing, birding, and cycling along the network of trails crossing public and private forestlands.



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www.PacificForest.org



California's drought, coupled with climate change, landscape fragmentation, fire suppression, and past forest management have drastically changed the Sierra's forest landscape. Recent surveys estimate that 66 million trees have died or are dying in the southern and central Sierra Nevada Mountains since 2010. Nearly 40 percent of the mortality occurred between October 2015 and May 2016.

Pacific Forest Trust is participating in the Tree Mortality Task Force, convened by California Governor Jerry Brown to coordinate responses to this state of emergency. With many dead trees located near roads, power lines, and homes, the initial focus has been to remove dead trees that threaten public safety.

Bark beetle infestations have also increased in response to the rise in unhealthy trees, further exacerbating tree death. And, with milder nights and winters from climate change, there are fewer cold spells that keep beetle populations in check.

To reduce tree mortality and increase forest health, the Sierra's forests need to be restored to more natural composition, structure, and function. Forests are more resilient when they have a diverse mix of tree ages (including large, older trees with fire-resistant bark), open canopies, and other natural forest

features. In addition to advocating for restoration to more natural conditions in these forests, Pacific Forest Trust is urging the Tree Mortality Task Force to promote proactive efforts in other at-risk forests to reduce these threats before emergencies occur.

Restoring more natural fire regimes in appropriate areas where settlements are not at risk—is also a key tool. The U.S. Forest Service has pioneered excellent models of how to bring fire back to the landscape, showing that forest thinnings followed by prescribed burn programs reduce the risk of highintensity fires and promote more natural low-intensity fires.

More natural forests are better able to survive stresses such as drought and fire. These forests are also more resilient to climate change. A central focus of our work is to encourage natural forest conditions, whether through the Tree Mortality Task Force or by working directly with landowners.

Forests need immediate state investments in restoration to promote health and resilience. This, coupled with Working Forest Conservation Easements, ensures long-term public benefits from these forests. Providing these key economic incentives could improve forest health now and for the future.