

Annual Report
Wood Products and Bioenergy Team
Climate and Energy Program
Department of Forestry and Fire Protection
2022 Calendar Year



January 13, 2023

Table of Contents

Contents

The 2022 Wood Products and Bioenergy Team	1
Introduction to the Wood Products Program.....	2
Grants.....	3
Anticipated impacts of these new grant projects.....	3
Technical Outreach	5
Accomplishments.....	6
Acknowledgement to Partners	7
Feedback from Grantees.....	8
Summary of Grants Awarded in 2022.....	10
Goals for 2023.....	11

Figures

Figure 1. Map of Awarded Grants.....	4
--------------------------------------	---

Tables

Table 1. Grants Awarded in 2022.....	10
--------------------------------------	----

The 2022 Wood Products and Bioenergy Team



John McCarthy is the Program Manager for Wood Products & Bioenergy. Prior to joining CAL FIRE, he spent 20 years at Garcia and Associates, providing CEQA, NEPA, and permitting services to State and federal agencies and public utilities. Before that he was a Registered Professional Forester at Sierra Pacific Industries, where he wrote Timber Harvest Plans and managed reforestation activities in Trinity and Humboldt counties. He also served as a Peace Corps Volunteer in Bolivia working as an agroforestry extension agent in rural communities. John earned a Bachelor of Science in Forestry from the University of California at Berkeley and a Master of Business Administration from the California State University at Chico.



Justin Britton is the Operations Forester for Wood Products & Bioenergy. He supports project management efforts with existing business and workforce development grantees. Justin joined CAL FIRE in 2019 as an inaugural forester in the Climate and Energy Program. Prior to CAL FIRE, he spent 5 years working as a Registered Professional Forester in private industry, managing lands in Shasta, Siskiyou and Trinity counties. Justin earned a Bachelor of Science in Forestry from Southern Illinois University Carbondale and a Master of Science in Forest Ecology from Utah State University.



Robin Bellows is the Planning Forester for Wood Products & Bioenergy. She supports workforce development and wood utilization infrastructure projects statewide, including prescribed fire and forestry training, biomass utilization, and sawmills. Robin joined the CAL FIRE Climate & Energy Program in 2019. She spent three years managing Forest Health Grants for thinning, planting, burning, and implementing forest restoration. Before CAL FIRE, Robin worked in timber and carbon offsets for New Forests and in guest hospitality in Yosemite National Park. Robin holds a Bachelor of Arts in Economics from Harvard College and a Master of Forestry from the University of California at Berkeley.



Sunoy Nandi is the Grants Analyst for the Wood Products & Bioenergy team. Beyond reviewing grant applications and development of agreements, he serves as a resource for grantees in helping them prepare accurate invoices and progress reports. Before joining CAL FIRE in November of 2022, he graduated from the University of California, Davis with a Bachelor of Science in Mathematics. He has always had a keen interest in climate economics and policy, which eventually led to his commitment towards helping wildfire prevention programs and other projects focused on mitigating the effects of climate change.

Introduction to the Wood Products Program

The Wood Products and Bioenergy Team is part of CAL FIRE's Climate and Energy Program. Our mission is to maintain and enhance the wood products infrastructure of California to support healthy resilient forests along with the people and ecosystems that depend on them.

The Team doubled in size over the course of this year. Initially, Justin Britton and John McCarthy served as foresters in planning and operations. John was then promoted to the new program manager role in March. Robin Bellows later came over from Forest Health to backfill John's vacant position. In the fall, Sunoy Nandi joined the Team in a new position as grants analyst.



Wood Products started a new grant program in 2022. Grants were offered to fund forestry-sector businesses and workforce development projects in California. More than 180 people attended the first grant workshop seeking support for their projects to make California a more competitive place to conduct forest-sector business. Grantees were attracted to financial incentives to invest in clean technologies, develop innovative ways to process wood products, and support the growth of a strong-forest sector workforce.

The grant program had four primary areas of responsibility, including existing and emerging technologies:

1. Business development, including solid wood and biomass processing and manufacturing, in-woods operations, and tree nurseries.
2. Bioenergy business and workforce development, including forest bio-material power generation and biofuels for domestic use and export.
3. Forest-related workforce development at all levels including in-woods, transportation, and manufacturing.
4. Research and development that is ancillary to forest-related business and workforce development.

Through the hard work of its Team members, Wood Products was the first grant program at CAL FIRE to manage every step of a grant process through the 3rd party platform eCivis, which was new to CAL FIRE. The experience demonstrated to other CAL FIRE programs the utilities of the platform. The program was also unique in that it accepted applications on a continuous basis and made three rounds of awards during the year.

Grants

Over the course of the first year of the grant program, it received 114 applications for a combined request of \$140 million. Of those 114 applications, 51 projects were awarded \$54 million in grant funds, which break down as follows:

- \$21 million for 15 workforce development projects.
- \$25 million for 21 business development projects.
- \$4 million to 10 business R&D projects.
- \$4 million for five projects to expand native tree nurseries and cone collection operations.

Anticipated impacts of these new grant projects

Workforce development grants will create 40 jobs and train over 5,700 people in the next four years.

Business development grants will enable businesses to create approximately 165 direct, full-time jobs over a 4-year period. Those jobs are expected to persist beyond the life of the funding.

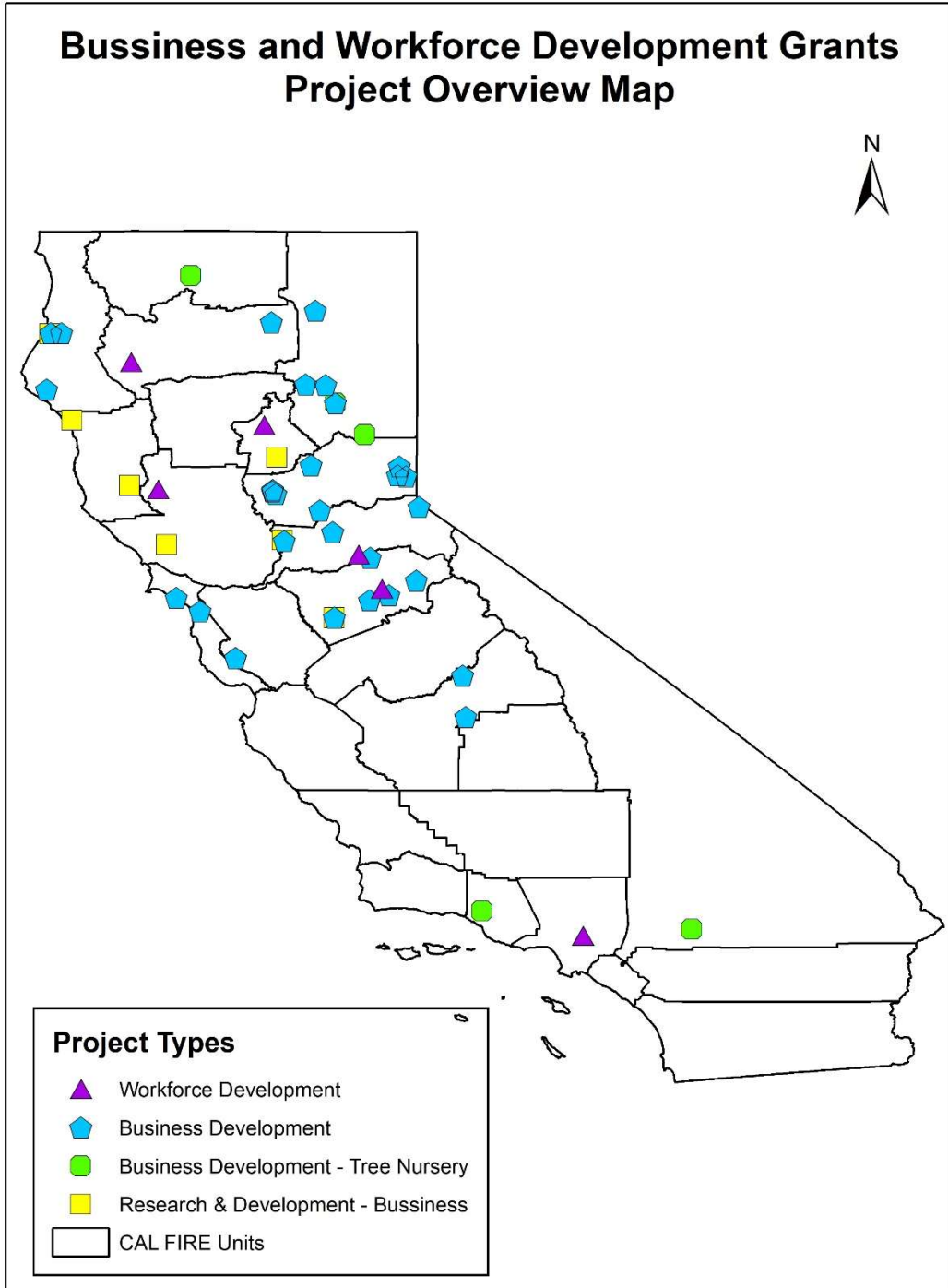
Over 1,100,000 tons of biomass processing capacity will be developed from these grants, representing an opportunity to utilize biomass generated from 110,000 acres of forest treatments that would otherwise remain in the woods.

Business research and development projects will assist in the design and development of new technology for facilities whose operations are projected to consume approximately 1,000,000 tons of forest biomass annually.



Workforce grants will benefit K-12 teachers, high-schools, community colleges and State colleges. Projects will target early-career foresters and justice-involved individuals. Recipients include tribal members and small, disadvantaged businesses who can now receive assistance in writing grants and expanding business capacity.

Figure 1. Map of Awarded Grants



Technical Outreach

Staff collaborated with State and federal agencies and served on panels of well-attended conferences covering many forestry-sector subjects. Some of the more notable events attended are listed below:

- Organized and hosted four quarterly coordination meetings with representatives from other State agencies to update each other on wood products business development efforts. Attendees included the Governor's Office of Business and Economic Development (GO-Biz), California Infrastructure and Economic Development Bank (IBank), Governor's Office of Planning and Research (OPR), the California Public Utilities Commission (CPUC), Department of Conservation (DoC), California Air Resources Board (CARB), Department of Energy (DOE), the California Natural Resources Agency (CNRA), and the Board of Forestry's Joint Institute for Wood Products Innovation.



- Collaborated with the East Bay Regional Park District in their 1,200-acre wildfire hazard reduction and biomass processing and utilization project.
- Hosted a Wood Products table at the in-person Forest and Wildfire Resilience Task Force meeting in Santa Rosa in March.
- Represented CAL FIRE at the Hydrogen Leadership Summit in Sacramento in June.
- Represented CAL FIRE at the Forestry Education & Workforce Development Summit at Tahoe Community College in May.
- Presented the Workforce Development program to the Colorado Timber Industry Association in July.
- Collaborated with CAL FIRE Urban and Community Forestry to present career pathways to formerly incarcerated individuals at a Forestry and Fire Recruitment Program event in September.
- Represented CAL FIRE at the Forest Innovation Summit, sponsored by the Swedish American Chamber of Commerce, which was held in San Francisco in October.
- Represented CAL FIRE at the California Resilient Careers in Forestry Kick-off event in November.

Interagency Outreach

- Presented regular updates at the quarterly Joint Institute for Wood Products Innovation meetings.
- Hosted regular coordination calls with USFS Wood Innovations Group, Ad Hoc Forest Biomass Working Group, Department of Conservation, GoBIZ, and the Climate Catalyst Fund.
- Facilitated Wildfire and Forest Resilience Task Force (WFRTF) Working Group on Workforce Development and other conversations to develop a statewide Forestry Workforce Strategic Plan.

Accomplishments

Within the Climate and Energy Program at CAL FIRE, the Wood Products Team complements Forest Health Grants Program in its goal of increasing the pace and scale of fuels reduction projects in California forests. While Forest Health's grant program funds the in-woods activities, Wood Products Team works to build the businesses and expand the workforces needed to meet the Wildfire and Forest Resilience Task Force's *Roadmap to Million Acres*, which is to treat one million acres annually by 2025.

The new grant program generated interest right away; a January grant workshop drew 189 participants. Following the workshop, businesses that had never sought grant funding began to come forward with creative and impactful business ideas. Foresters met with wood products manufacturing facilities in Truckee, Chester, Yuba City, Anderson, and Weaverville to evaluate expansion opportunities. They also traveled to meet loggers in Willow Creek, Quincy, Redding, and Blue Lake to evaluate business and workforce development opportunities.

In the first quarter of 2022 alone, the Team met in person and virtually with more than 50 entities that were preparing applications for grant funding.

Staff also met with five national and international companies that are exploring opportunities in California for large biomass energy facilities.

Additionally, staff drafted a white paper titled "An Evaluation of Forest Biomass Transportation Subsidies" that will be used to inform proposal preparation and grant selection for the related FY 22-23 grant awards.



Acknowledgement to Partners

- Thank you to the team in Forest Health! The Wood Products Team built the new grant program based on the guidelines and reporting requirements that initially developed. Also, we appreciate funding from Forest Health that also enabled awards of additional grants to some excellent projects that otherwise would not have been successful.
- The Wood Products Team appreciate the CAL FIRE Grants Management Unit for helping us develop the first grant application process managed through the 3rd party platform, eCivis.
- A partnership with CAL FIRE's Wildfire Resilience program enabled the Wood Products Team to solicit and award five nursery and cone collection projects during the year. Of note, a \$3 million grant to Sierra Pacific Industries will help develop a new seedling nursery in Siskiyou County that will produce up to 25 million trees annually.
- The CAL FIRE Northern and Southern Region Chiefs and their Units provided excellent local knowledge and feedback in reviewing grant applications.
- The Program's interagency grant review team included participants from U.S. Forest Service, the Department of Conservation, the California Workforce Development Board, The Department of Energy, I-Bank, and the Governor's Office of Planning and Research.

Feedback from Grantees

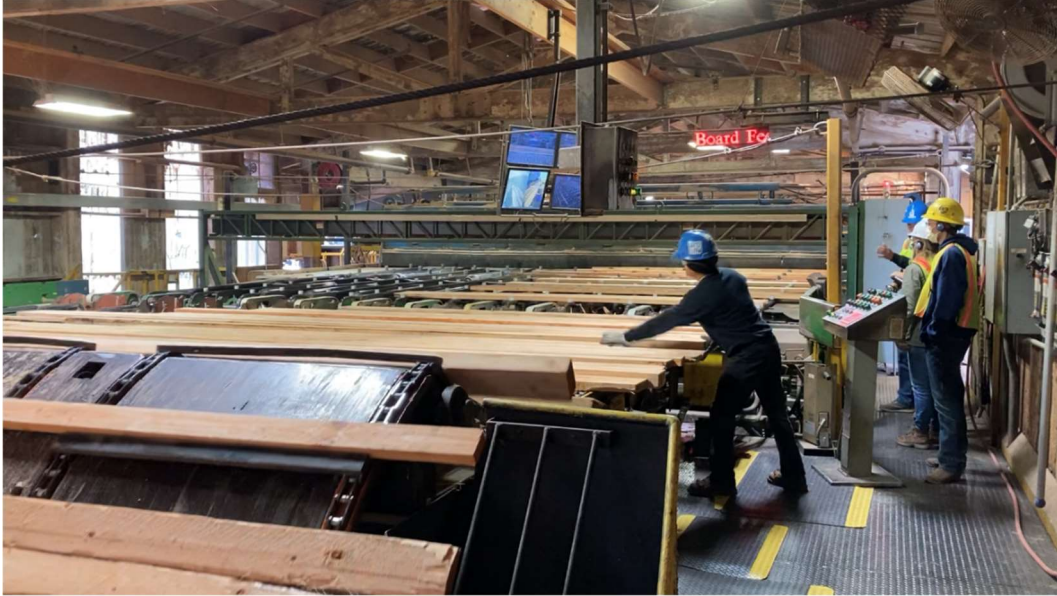
"As climate change puts a greater strain on forestry and fire personnel, CAL FIRE's investment in our Program has helped us to increase wildfire personnel who were formerly incarcerated or from traditionally underrepresented backgrounds," commented **Cari Pang Chen, Bay Area Director of the**

Forestry and Fire Recruitment Program, a nonprofit that was awarded a workforce development grant. "Our 2022 grant supports expansion to the Bay Area and deepens our work across the State in providing the necessary training and preparation for helping our participants transition



successfully to forestry and fire careers with family-sustaining wages."

"Healthy, growing forests provide clean water and air, important wildlife habitat, recreational opportunities, and jobs for rural economies," said **Jessica Hinojosa, Sierra Pacific Industries Tree Improvement Manager**. "SPI is making this investment to help meet our State's growing needs for high-quality, native conifer seedlings. We appreciate CAL FIRE's support for this immense endeavor. We look forward partnering with public and private organizations across the State that are working to recover and restore California's forests."



“Our Workforce Development award from CAL FIRE enables us to offer the Forestry Challenge Program free of charge to high school students throughout the State,” said **Diane Dealey Neill, Executive Director of Forestry Educators, Inc.** “Removing this barrier to participation has increased our student numbers and will provide technical training and career awareness to over 500 students each year.”

Summary of Grants Awarded in 2022

Table 1. Grants Awarded in 2022

Grant Type	Grantee	Award
Bus Dev	Aemetis Advanced Products Keyes, Inc.	\$ 2,000,000
Bus Dev	Alpenglow Timber LLC	\$ 2,000,000
Bus Dev	BMEC	\$ 1,000,000
Bus Dev	Collins Pine Company	\$ 1,973,000
Bus Dev	Earth Foundries, Inc.	\$ 783,000
Bus Dev	Earth Foundries, Inc.	\$ 297,827
Bus Dev	Force Energy Corporation	\$ 1,000,000
Bus Dev	Hat Creek Lumber, Inc.	\$ 2,000,000
Bus Dev	Peterson Timber, Inc.	\$ 65,000
Bus Dev	Trinity River Timber Company dba North Fork Lumber Company	\$ 2,000,000
Bus Dev	Tuolumne Biomass LLC	\$ 2,000,000
Bus Dev	Unity Forests Products, Inc	\$ 420,000
Bus Dev	Auberry Sawmill, Inc.	\$ 499,999
Bus Dev	Del Logging, Inc.	\$ 1,334,509
Bus Dev	Kodama Systems Inc.	\$ 299,898
Bus Dev	West Forest, LLC	\$ 480,000
Bus Dev	J&C Lumber Inc	\$ 449,485
Bus Dev	American Wood Fibers, Inc.--Marysville [Olivehurst], CA	\$ 1,700,000
Bus Dev	Mt. Lassen Power Inc.	\$ 1,500,000
Bus Dev	Northstar Community Services District	\$ 2,000,000
Nursery	New Growth Forest Management	\$ 414,211
Nursery	San Bernardino Mountains Land Trust	\$ 275,000
Nursery	Sierra Pacific Industries	\$ 3,000,000
Nursery	Ojai Valley Land Conservancy	\$ 152,331
Nursery	The Sierra Institute for Community and Environment	\$ 70,530
R&D Business	Aemetis Advanced Products Keyes, Inc.	\$ 499,999
R&D Business	Atlas Tree Surgery Inc.	\$ 118,266
R&D Business	Fabric Workshop	\$ 429,055
R&D Business	Mendocino Redwood Company	\$ 230,000
R&D Business	San Luis Obispo County Air Pollution Control District	\$ 342,944
R&D Business	Yosemite Clean Energy	\$ 500,000
R&D Business	California State Polytechnic University, Humboldt and Schatz Energy Research Center	\$ 499,999
R&D Business	Mason, Bruce, & Girard, Inc.	\$ 95,000
	SUNY	
R&D Business	Northern Sonoma Air Pollution Control District	\$ 37,000
R&D Business	Lignum Support	\$ 62,904

Grant Type	Grantee	Award
Workforce	Fire Forward, Audubon Canyon Ranch	\$ 1,999,995
Workforce	Forestry Educators Incorporated	\$ 454,000
Workforce	Humboldt State University Sponsored Programs Foundation	\$ 492,563
Workforce	Mattole Restoration Council	\$ 482,677
Workforce	Placer County Resource Conservation District	\$ 250,880
Workforce	Reedley College	\$ 2,302,553
Workforce	Sierra Nevada Alliance	\$ 2,499,998
Workforce	The Forestry and Fire Recruitment Program (FFRP)	\$ 3,700,000
Workforce	The Nature Conservancy	\$ 2,418,224
Workforce	University of California, Agriculture and Natural Resources	\$ 397,156
Workforce	Headlands Environmental	\$ 499,854
Workforce	The Watershed Research and Training Center	\$ 1,251,159
Workforce	Tribal EcoRestoration Alliance	\$ 1,386,777
Workforce	Fresno Regional Workforce Development Board/Fresno Area Workforce Investment Corporation	\$ 1,973,615
Workforce	Chico State Enterprises	\$ 1,210,615
Total		\$53,850,023

Goals for 2023

- The ongoing workforce and business development grant solicitation has new grant guidelines. The next deadline for applications is March 31, 2023, and we intend to award up to \$12.5 million for the quarter.
- The 2023 grant solicitation includes new funding of \$5 million specifically to subsidize transportation of forest biomass from the woods to processing facilities, supporting hazardous fuels reduction, reforestation, and wood utilization.





- Together with grantees the Team intends to develop efficient processes in submitting timely and accurate invoices and progress reports.

- As new grant projects kickoff, the Team will visit grantees to see their new projects take shape.