

CAL FIRE Business and Workforce Development Grant Awards - 2022 Q1				
Organization	Project Title	Project Summary	Project Category	Award Amount
Forestry and Fire Recruitment Program	Expanding Capacity for Fuels Reduction Worker Training & Projects	The Forestry and Fire Recruitment Program (FFRP) is a 501(c)(3) that provides career support to those who have been in, or are returning home from, California's Conservation Camps (i.e. "Fire Camp") and are interested in careers in the wildland and / or forestry sector. Funding from CAL FIRE would support FFRP in three critical ways: (1) train and place 70 people per year in fire prevention and suppression careers statewide; (2) add 6 additional hand crews to our workforce and increase prevention crew capacity from 3 to 10 in Los Angeles and the SF Bay Area; and (3) provide immediate fire prevention services throughout California.	Workforce Development	\$ 3,700,000
Placer Co RCD	Forestry and Natural Resources Career Mentorship Program	This application will fund a part-time program manager for the Forestry and Natural Resources Career Mentorship Program. This program, which has been piloted for two academic years at five educational institutions in California, seeks to increase entry and retention of early career professionals through personalized, one-on-one mentorship. Participating schools include UC Berkeley, Cal Poly San Luis Obispo, Cal Poly Humboldt, College of the Redwoods, and Shasta College. The program provides professional trainings (resume development, interview skills, etc.), and coordinates panels of career professionals to help students transition into the workforce.	Workforce Development	\$ 250,880
UC Ag and Natural Resources	Forestry Institute for Teachers	This proposal seeks to increase youth entry into natural resource professions by expanding the Forestry Institute for Teachers (FIT) program. The FIT program leverages a network of volunteers to educate California teachers about forest science, management, operations, and manufacturing. The purpose of the program is to educate teachers about the diverse career opportunities within forestry so that they can guide their students into joining the natural resource workforce.	Workforce Development	\$ 397,156
Reedley College	Wildfire and Prescribed Fire/Fuels Management Program Capacity Increase	The Reedley College (RC) Wildland Fire Technology Program proposes to expand its Wildland Fire and Fuels Management program to train 160 new entry and mid-career wildland fire management workers and technicians over a 4-year period (2022-2026). Additionally, RC will create a new Prescribed Fire Training Academy which includes 3 new courses in Prescribed Fire/ Fuels Planning and Project Development and the development of 4 new Industry Certificates. The project will also build new strategic partnerships with regional and state wildland fire agencies to expand training opportunities in Fire Suppression, Prescribed Fire and Fuels Management.	Workforce Development	\$ 2,302,553
Mattole Restoration Council	Mattole Forest Resilience Training Project	The Mattole Restoration Council (MRC) will provide four National Wildfire Coordinating Group (NWCG) S-212 chainsaw trainings and two prescribed fire training exchanges (TREX) annually for four years (16 S-212 trainings and 8 TREX events total). The trainings will build local capacity to participate in forest thinning, fuels reduction and prescribed fire treatments.	Workforce Development	\$ 482,893
Forestry Educators	Forestry Challenge	The Forestry Challenge is a competitive event for high school students in technical forestry and current forestry issues. The goal of the Forestry Challenge is to provide high school students from California area an opportunity to increase their awareness of forestry knowledge and issues so they can better participate in forestry related processes as adults. This grant will support the students' and teachers' registration fees for 4 years, which should increase participation and eliminate financial barriers to participation.	Workforce Development	\$ 454,000

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Sierra Nevada Alliance	The Sierra Corps Forestry Fellowship Program	The Sierra Corps Forestry Fellowship Program produces quality forest health project managers that receive professional mentorship and guidance toward "stackable certificates" that create future forest leaders. The program's goal is to develop a larger and more qualified forestry workforce within the Sierra Nevada. The grant will fund four additional years of this workforce development program.	Workforce Development	\$ 2,500,000
The Nature Conservancy	Expanding Prescribed Fire Training Opportunities in California	This project will increase the amount of prescribed fire training opportunities throughout California. It will leverage partnerships developed through The Nature Conservancy's Fire Learning Network and Indigenous Peoples Burning Network to build on the highly successful Prescribed Fire Training Exchange (TRES) model, which has already trained over 1,300 individuals since 2008 in California alone. This model is focused on cooperative burning, where individuals from federal and state agencies, non-governmental organizations, tribes, private landowners, students and interested citizens convene to plan and implement prescribed fire. Our project can directly support that workforce development by significantly expanding prescribed fire training opportunities across California.	Workforce Development	\$ 2,418,224
Humboldt State	Expanding California's fire management workforce through integrating education, training, and exp...	In collaboration with federal, state, and local partners in Humboldt County and surrounding regions, Cal Poly Humboldt proposes to enhance workforce capacity in the state through three major efforts: (1) it will substantially increase training and experience opportunities for Cal Poly Humboldt fire students; (2) it will create a certified fire management education program for state and federal fire and fuel practitioners; (3) It will provide training and knowledge workshops for community members interested in conducting fuel treatments on private lands.	Workforce Development	\$ 492,563
Fire Forward	Fire Management Intensive Workforce Development Program	This proposal requests funding to launch the Fire Forward Intensive, a workforce development and stewardship leadership initiative that opens doors to forestry, fire agency, fuels management, prescribed fire, land stewardship, or academic careers. The Intensive will train five full-time crewmembers per year, 20 over four years, and complement our ongoing Fellows program that prepares an additional five to ten people annually from land management and conservation organizations stewarding thousands of acres across the region. Each trained leader can, in turn, field additional crews and begin filling the void that currently exists.	Workforce Development	\$ 2,000,000
Unity Forest Products	Unity Forest Products Dry Kiln	For this existing sawmill to increase its capacity for milling logs, including burned timber from wildfires, it is necessary to increase capacity for drying lumber. This project will construct a dry kiln which includes building, heating/spray system, fan system, vent system and computerized controls with a capacity of 30,000 to 40,000 bd ft of lumber per charge depending on length and size of lumber.	Business Development	\$ 420,000
Peterson Timber	Northern Sierra Forest Health Business Development	Peterson Timber, Inc. will purchase a used tracked skidding machine (Caterpillar D6R XR with grapples), which would increase the pace and scale of multiple current and ongoing forest health projects. Purchasing this equipment will allow machine access to steeper ground where rubber-tired skidders cannot operate, so that thinning treatments can be completed on areas that would otherwise be left untreated. In addition to supporting the implementation of needed treatments, the woodchips that will be produced will be made available to multiple biomass facilities.	Business Development	\$ 65,000

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Tuolumne Biomass (Heartwood)	Tuolumne Biomass CHP System	This Grant will fund the design, procurement, and installation of a Combined Heat and Power (CHP) System, expanding the impact and scope of a new fully integrated forest products processing facility planned to be built in Tuolumne County, converting low-value, small-diameter logs into higher-value products, including bundled firewood, agricultural posts & poles, chips, bioenergy feedstock, and other products. This proven business model is an expansion of affiliate Heartwood Biomass's decade of experience operating a similar facility in Northeastern Oregon, centered entirely around building a restoration economy that monetizes small-diameter trees.	Business Development	\$ 2,000,000
Alpenglow Timber	Alpenglow Timber Sawmill Project	The Alpenglow Timber Sawmill Project will establish a new 4.5 MMBF sawmill facility and wood energy system with the capacity to produce kiln-dried lumber and firewood, and to provide district heating to commercial and residential units. The facility will provide an outlet for forest material within one year, and immediately improve forest health and forest-supported communities and ecosystems. The proposed funding request is necessary to support the sawmill's capital infrastructure costs consisting of the facility's boiler, its automated infeed system, emissions controls and condenser, three packaged kilns, re-saw, stacker, and grinder, and the water storage tank.	Business Development	\$ 2,000,000
Collins Pine	Chester Mill Upgrades for Cost Efficiency, Grade Recovery, and Throughput	Collins proposes to replace and upgrade its sawmill stacker with a new machine that will improve speed and quality of stacking, keeping pace with the sawmill. In addition, Collins proposes to upgrade to a state-of-the-art grade scanner system at the planer, including a new lug loader for faster processing through the board trimmer. These upgrades will help Collins to process more material in a more cost-efficient manner, allowing better contributions to post-fire recovery on all lands and continuing support of the local sustainable forest management economy into the future.	Business Development	\$ 1,973,000
Hat Creek Lumber	Hat Creek Lumber, Inc.	Hat Creek Lumber (HCL), Inc. is comprised of local business owners who will to construct and operate a community-scale sawmill in 2022/2023 near Burney. The mill design will focus on processing low value sawlogs sourced from U.S. Forest Service fuel reduction and forest health projects, and projects designed to reduce fire hazard within the Wildland Urban Interface. Grant funds would be used to purchase sawlogs for operations. When completed, the sawmill will be integrated with Hat Creek Bioenergy. Roughly 25 new jobs will be created and maintained, equating to approximately 2,000-5,000 acres treated/year.	Business Development	\$ 2,000,000
Trinity River Lumber	North Fork Lumber 5MW Biomass Cogeneration Development	North Fork Lumber Company (NFLC) proposes to advance a 5MW biomass cogeneration facility that will create stable demand for approximately 35,000-50,000 BDT of low-value biomass (sourced from local sawmills and various wildfire mitigation and forest restoration projects), export up to 3MW to the grid through the BioMAT program, offset the sawmills current energy demand, and utilize thermal energy for on site kiln drying. NFLC is now requesting CAL FIRE funds to complete and submit permitting documentation, update interconnection studies and complete interconnection upgrades, complete additional technical studies, and complete construction-ready documentation, positioning the project for final site prep and facility construction.	Business Development	\$ 2,000,000
Earth Foundries	SF Bay Area Biochar Market & Sales Development	Earth Foundries will use grant funds for both SF Bay Area biochar market development and for Earth Foundries' sales development efforts. Both are critically necessary to enable Earth Foundries to create a biochar business. This biochar market development work will benefit all regional biochar sellers and will help to create a market for forest waste thereby lowering forest waste disposal costs.	Business Development	\$ 297,828

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Earth Foundries	Carbonator Mobile Pyrolysis Business	The Earth Foundries' Carbonator Mobile Pyrolysis Business will offer on-site forest waste disposal at scale which has a net-negative carbon footprint, reduces the cost of forest waste disposal and provides a beneficial product (biochar) that has follow on benefits in downstream applications. The CAL FIRE grant will provide supplemental funds to support the purchase of two TigerCat Carbonators and the working capital necessary to kickstart the business.	Business Development	\$ 783,300
Aemetis	Cellulosic Ethanol to Accelerate Forest Fuels Reduction in Priority Forest Landscapes	Aemetis, in collaboration with ATSI, the Joint BioEnergy Institute, Prononic, and Momentum, proposes to deploy and fully demonstrate a woody biomass to fuels technology that circumvents the current limitations surrounding the extraction of cellulosic sugars from woody biomass. Leveraging technology developed with the support of the CEC, Aemetis will complete design, construction and commissioning of a 2M GPY cellulosic ethanol facility that will convert conifer biomass from fuels treatment activities in high-priority forested regions of the Sierra Nevada into an ultra-low carbon biofuel derived from 100% forest biomass. It will remove 25,000 BDT per year of woody biomass from high priority areas, helping protect 7,000 acres/year from wildfire, and create 47 forest sector jobs, plus strong potential for indirect forestry jobs associated with increased demand for the targeted fuel.	Business Development	\$ 2,000,000
Blue Mtn Electric	Blue Mountain Electric Company Forest Biomass Plant	This project is to build the 3MW Blue Mountain Electric Company Biomass Energy Facility at a shovel-ready site located in Wilseyville, CA. The operational facility will create rural jobs, reduce catastrophic wildfire risk, and improve regional air quality through the reduction of open burning of forestry residues.	Business Development	\$ 1,000,000
Force Energy	Tuolumne BioEnergy	Force Energy Corporation (FEC) intends to develop a woody biomass pellet manufacturing facility on a 3.27 acre leased property in an industrial business park in Sonora, CA. Wood pellets are densified wood products produced from wood chips derived from the thousands of piles of biomass accumulating in the Stanislaus National Forest and Tuolumne County region. Tuolumne BioEnergy Inc. (TBI), the pellet enterprise, will utilize approximately 40,000 bone dry tons (BDT) of biomass annually to produce 30,000 tons of premium wood pellets.	Business Development	\$ 1,000,000
Yosemite Clean Energy	Engineering to support development of a wood waste to biofuel gasification plant in the Northern Sierra Nevada	Yosemite proposes to complete detailed process design (FEL 3) engineering of a woody biomass gasification plant. The plant would process 100,000 bone dry tons per year of biomass to produce 30 tons of renewable natural gas (RNG) and 13 tons of green hydrogen per day.	Business Development	\$ 500,000
Mendocino Redwood	Feasibility Study for MFP Biomass-to-Energy Plant	Mendocino Forest Products (MFP) proposes to produce a comprehensive feasibility study that will analyze up to eight biomass-to-energy technologies with potential for implementation at MFP's Ukiah, California sawmill. The project's objective is to grade the technologies with respect to their suitability to the site and region, their overall economic potential, and their risk profile, allowing MFP to make an informed decision for a sustainable investment. The study will include a review of the existing mill assets, an operational cost analysis, a capital cost estimate, as well as identification of risk for the potential options. The cost estimates are to be performed by experts in their field who have financed, designed, and built numerous renewable energy assets in their careers. This feasibility study is a critical step in the process of developing new project and will provide MFP a reasonable level of confidence moving forward.	Business Development	\$ 230,000

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Atlas Tree	Atlas Tree Wood Utilization Feasibility Analysis	Atlas Tree, a forestry, residential, commercial, and municipal tree service and management company, proposes to partner with demonstrated experts from the non-profit organization Sonoma Ecology Center to identify preferred strategies to ecologically and economically use more effectively the immense volumes of woody wastes that its vegetation management actions generate. Atlas intends to explore a range of technologies that can convert wood into biochar and perhaps into other useful products like heat, electricity, and biofuel.	Business Development	\$ 118,266
Fabric Workshop	Novel utilization of undervalued California wood fiber in advanced, engineered wood products sourced from wildfire mitigation projects	Fabric Workshop, a timber innovation and fabrication company working in collaboration with Arup, Hacker Architects, Holmes Structures, and Timberlab, will combine regenerative forestry with Industrial Construction to create advanced, timber-based building systems designed and sourced specifically to utilize the undervalued wood that Cal Fire needs off the landscape. To expedite California timber utilization and manufacturing by 2023, Fabric Workshop will address three key areas: (1) Finalize commercial viability and supply research; (2) Support R&D for California-sourced glulam and pine-based curtain wall; and (3) Produce prototypes for testing and certification.	Business Development	\$ 429,055
SLO Air Pollution Control District	Proposal to Quantify GHG, Criteria Pollutant, and Dioxin Reductions and Carbon Sequestration Potential from Small-Scale, Low Emissions In-Forest Burn Techniques	California Air Pollution Control Officers Association, Usal Redwood Forest Company, Sonoma Ecology Center, USFS's Missoula Fire Sciences Laboratory, and Washington State University developed this collaborative proposal to conduct replicated laboratory and field tests to quantify greenhouse-gas, dioxin and criteria-pollutant emissions reductions and carbon-sequestration potentials (biochar) for two unique low-emissions burn techniques (top-lit conservation burn and flame-cap kiln) relative to traditional open-pile burning of forestry materials/wastes which will serve as a control. USFS/SEC will provide lab and field emissions reduction, sequestration, and biochar quality results.	Business Development	\$ 342,944
Aemetis	Advanced Cellulosic Fuels Development to Valorize Forest Fuels Reduction	Aemetis proposes to advance a new-to-the world technology that circumvents current limitations surrounding the extraction of cellulosic sugars by pioneering a novel route for deconstructing woody biomass using ionic liquids (ILs). ILs can preferentially solubilize lignin, leaving high-purity hemicellulose and cellulose, which is easily separated by filtration for subsequent hydrolysis. In this proposal, Aemetis and the project team seek to further advance the technology to support and scale-up to full commercial operation. Work to date has included the development of viable small scale production systems that generate cellulosic sugars in a batch-based process. Commercial scale operation, however, will be greatly facilitated by transitioning select elements of the system to a continuous process.	Business Development	\$ 500,000

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San Bernardino Mtns Land Trust	San Bernardino Mountains Land Trust Tree Nursery	The goal of the San Bernardino Mountains Land Trust is to establish a tree nursery that will create and provide a reliable source of quality native tree seedlings and saplings to private landowners. The San Bernardino Mountains Land Trust (SBMLT) has a secured site with an existing building that can easily be converted into a tree nursery. SBMLT has several preserves across the San Bernardino Mountains for seed stock. In addition to utilizing community volunteers, the SBMLT will be creating new job positions to meet the needs of the project. SBMLT has experience in organizing the community in grassroots restoration and reforestation projects.	Business Development	\$ 275,000
New Growth Forest Mngmt	New Growth Forest Management Cone Collection Team	New Growth Forest Management is seeking financial support to start a Cone Collection Team to address the conifer seed deficit for post fire forest rehabilitation in areas of the Dixie Fire footprint within Plumas County on private lands. The NGFM CCT will be run by an RPF who will oversee all aspects of stand surveying, cone maturity monitoring, and harvesting.	Business Development	\$ 411,076