



California Resilient Careers in Forestry

Section 1: Project Description and Overview

Section 1a: Skilled workers are the linchpin to addressing the economic and climate crises in California's forested, rural communities. Climate change has fueled record-breaking wildfires that destroyed multiple communities and 2.5 million acres in 2021. With these communities doubly impacted by the pandemic, workers need support to get into quality jobs now.

The emerging climate-resilient landscapes sector has the potential to grow into a \$39 billion industry with 177,000 jobs in California. There are projected shortages of 6,000 fire managers, 4,000 conservation scientists and foresters, 7,000 loggers, and 1,500 utility line clearance technicians, which are well-paying jobs with benefits. The magnitude and urgency of the need for skilled workers and the potential for growth calls for disruptive innovation in how workforce training programs collaborate with industry.

With support through the Good Jobs Challenge, the **California Resilient Careers in Forestry (Careers in Forestry Hub)** workforce training system will partner with industry to strategically coordinate and expand forestry and fire-safety training programs in the Sierra Nevada and Cascade regions of northeastern California. Regional Hub partners will facilitate public-private partnerships and leverage resources to meet Comprehensive Economic Development Strategy¹ goals and California's High Road Training Partnership Framework².

The Hub will equitably catalyze outreach, training, and placement, specifically reaching adults with barriers to employment; English-language learners; Hispanic/Latinx; indigenous; low income workers; veterans; and women. This is a generation changing moment to place skilled workers in quality, demand-driven jobs that will rebuild communities and promote economic recovery and resilience.

Section 1b: FoundationCCC will serve as system lead for the proposed project. FoundationCCC is a 501(c)(3) nonprofit organization with a mission to benefit, support, and enhance California Community Colleges. It is the official auxiliary of the California Community Colleges (CCC) Chancellor's Office and Board of Governors. The 116 CCC system comprises the largest provider of workforce training in the nation.

FoundationCCC has a successful track record as a convener, connector, accelerator, problem-solver, and a hub for innovation and transformative change. Developing this expansive workforce training system will require support and buy-in from numerous partners.

FoundationCCC has experience coordinating across sectors and partners to drive stakeholders to successful action. In its work, FoundationCCC shares best practices for equity in training programs, including applying an equity lens into recruiting strategies and curriculum.

FoundationCCC's Resource Development Department provides strategy and expert support to garner philanthropic and public funds for projects. This department will help the Hub plan for sustainability after EDA funding ends through strategic philanthropic and public funding.

¹ See Attachment A for list of Comprehensive Economic Development Strategy Plans

² California's High Road Training Partnerships: <https://cwdb.ca.gov/initiatives/high-road-training-partnerships/>

Staffing Plan: The project will be staffed primarily by FoundationCCC’s Workforce Development Department, including existing staff and new staff who will support and work with Hub partners. Tim Aldinger is Executive Director of Workforce Development, and will provide strategic direction for the development of the Hub. Aldinger leads a 20-person workforce team that supports development, implementation, scaling, and sustainability of quality work-based learning opportunities for high school and college students to help improve workforce readiness. Additional expertise from FoundationCCC’s Community Impact and Equity Departments will support the Hub with employer engagement, equity in program design, wrap-around service development, outreach and recruitment of rural, underserved, and communities of color raising awareness of forestry careers and training opportunities.

Two FoundationCCC programs will support the Hub: Upskill California and Career Catalyst. Through Upskill California, the Workforce Development Department will manage utility line clearance pre-inspector training in partnership with Butte Community College. Existing staff of Upskill California help Butte Community College scale and expand the pre-inspector training. Career Catalyst is an employer of record service and a training and placement network that will support the placement of 500 workers during the grant period. Staff will recruit, assess, and place trainees in higher wage work experience, connect trainees to services, and transition them to employment or further training. Career Catalyst is led by Joshua Modlin, Director of Earn and Learn Programs, who brings experience in quality earn and learn strategies and strong ties to apprenticeship networks in California.

Staff from other FoundationCCC departments will also contribute to project success. In particular, the Finance and Legal departments will ensure compliance with federal funding requirements and monitor subrecipient activities.

Section 2a: Employer Leadership and Commitments

Employers committed to the project include numerous private sector and public agencies and span a significant footprint in California’s rural, forested regions³. Backbone organizations (listed in section 2b) currently have strong relationships with employers within the forestry sector. The Hub will help partners deepen these relationships and start new ones to support additional placements for trainees. For example, colleges engage employers through faculty who have connections to industry, and take students on field trips to employer sites, invite employers to speak during class, and identify other ways to drive engagement between employers and students. This is a lot of work for faculty, and there is not a centralized way to connect students to employers at a pace to meet workforce needs. The Hub will identify solutions to provide centralized support, including through Career Catalyst or through existing technology platforms that connect and place trainees with employers.

During the first two phases of the project, additional employers will be identified through an evaluation process to ensure their role is sustainable for the trainees and the various industries. Using the “Employer-of-Choice” model, potential employer partners will be evaluated based on their ability to provide quality jobs with benefits, living or prevailing wages, and career options to equip employees with upward mobility tracks and maintain employment through economic

³ See Attachment B for employer, strategic partners, and executive leadership letters of support

downturns. The Hub will also identify ways to help employers develop processes and policies that ensure their jobs meet the threshold of a “good job”.

The project will also develop strategies to engage employers to ensure training programs meet their needs and that recruitment and trainee selection strategies are employer informed. A centralized employer advisory committee will ensure industry partners drive design and deployment of the training programs. The advisory committee will inform outreach and recruitment strategies, update training models, build or strengthen ties with strategic partners, steer the Hub through various stages of the project, and build deeper relationships across the region. Surveys of employers and other feedback mechanisms will also be used. In particular, the Hub will solicit employer’s feedback on the key hard skills they are seeking, such as safe operation of equipment, fire safety when working on the forest, understanding of sustainable forest practices, and soft skills such as reliability, dependability, honesty, and work ethic.

In exchange for participating in the Hub, employers gain access to more qualified workers; resources to help them improve their business practices, such as equitable hiring and retention strategies to mitigate staff turnover; improved partnerships with training programs to ensure trainees develop skills that meet employer needs; and opportunities to surface systemic challenges to meeting their workforce needs that can be addressed by the Hub.

Processes for engaging employers will be solidified during the first two phases of the project. Employer feedback will be balanced with worker perspectives and others in the community, including local government and community-based organizations to ensure training programs meet the needs of employers while also achieving equity goals by placing more adults with barriers to employment; English-language learners; Hispanic/Latinx; indigenous; low income workers; veterans; and women into quality jobs.

Section 2b: Other Stakeholders and Partnerships

The Hub brings together a coalition of relevant partners in the outlined region⁴ and sector. Letters of support from core partners are included in this proposal, and additional commitments will be formalized during the first two phases of the project.

Backbone Organizations: Five California Community Colleges and one California State University will serve as backbone organizations.

Butte College is a designated Hispanic Serving Institution (HSI). Butte College has forged a trusted relationship with industry partners (e.g. Pacific Gas and Electric Company, other utilities, municipalities, tree contractors, unions and several non-profit trade associations) to develop curriculum and workforce training programs for arborists. The training addresses worker shortages by providing foundational safety skills for entry-level workers leading to securing prevailing wage employment.

In 2019, California’s utility companies called for an additional 2,950 qualified workers to clear power lines of vegetation to reduce fire danger. In partnership with industry, Butte College developed standardized utility vegetation management training programs. Despite the pandemic, the Utility Line Clearance Arborist training successfully placed 169 men and 37 women in jobs by 2022. The second program, Utility Vegetation Management Pre-Inspector, was designed with

⁴ See Attachment C, page 1 for regional forestry map for the Hub’s service area

direct input by technical utility experts and has seen 45 job placements to date. Through California Senate Bill 247, companies are required to pay arborists prevailing wages (see Table 1 for projected salary).

Butte College's role will be to partner with FoundationCCC to drive further job placements, replicating training programs and expanding recruitment to increase enrollments through Upskill California Community College network⁵, Utility Arborist Association, Tree Care Industry Association, and International Society of Arboriculture. There are also opportunities to expand Butte College's programs to colleges or universities across the nation. The University of Minnesota, University of Wisconsin Stevens Point, and Colorado Utility Sector Partners have provided a letter of support expressing the desire to replicate Butte College's program. As demonstrated from our partners, the United States is overdue and ready for a standardized Utility Vegetation Management workforce development program.

California State University (CSU), Chico, a designated HSI, has a breadth of training programs aligned with the Hub. CSU, Chico will bridge valuable relationships with the Big Chico Creek Ecological Reserve (BCCER), the North State Planning and Development Collective (NSPDC), and the Northern Rural Training and Employment Consortium (NoRTEC). The BCCER is the largest ecological reserve in the CSU system; this area covers 7,835 acres of land and 4.5 miles of Big Chico Creek, making it a prime spot for onsite training on prescribed burns and other wild lands management in diverse vegetation environments. CSU, Chico will connect the training from BCCER with NSPDC and NoRTEC to recruit, train, and place students in fire management and land stewardship industries.

CSU Chico will also cultivate relationships with tribal governments in the geographic region it serves through its dedicated tribal liaison who works on campus. CSU, Chico will provide best practices for integrating wrap-around services into training programs through NoRTEC as well as placements for trainees into jobs with private employers.

Feather River College is situated in the Sierra Nevada mountain range at the epicenter of the three most devastating wildfires in California history. Those fires, which occurred in the past three years, have spotlighted the need for more trained professionals to work in fire and fuels management and landscape restoration. The college's long history of offering programs in forestry and natural resource management has been vital to the local community maintaining economic resilience and feeding workforce demands. These programs lead to associates degrees and certificate programs in forestry technician, and fire and fuels technicians. The college recently applied to begin offering a bachelor's degree program in forest and watershed management, which, if approved, will provide a new career pathway into higher paying jobs.

Located in a remote, rural area, the most important role of Feather River College will be to bring the rural perspective, including through feedback from local employers and industry leaders to provide guidance and assessments of forestry, fire, and landscape restoration needs in rural communities. Feather River College will use employer feedback to align curriculum to fill workforce shortages, and provide best practices for curriculum development and faculty hiring approaches to directly put local industry needs into training curriculum. Additionally, Feather

⁵ See Attachment C, page 2 for Upskill California's network

River College brings a wealth of knowledge and partnerships with public and federal agencies, such as the U.S. Forestry Service and the California Conservation Corps.

Lake Tahoe Community College (LTCC) is located in the Sierra Nevada Mountains, geographically isolated from the rest of California by high mountain passes. As a designated HSI, LTCC reaches into diverse communities and provides an avenue into forestry and fire-safety careers to the most underserved populations.

LTCC will focus on expanding workforce training and job placement in two programs: fire science academy and forestry education program. Both programs lead to certificates or associate degrees, while implementing outdoor training, hands-on skills development, and work-based learning. Students gain broad knowledge of fire operations, use of equipment, firefighting tactics and strategies, critical soft-skills, forest treatments techniques, wildland-urban interface, and management techniques. Local employers will continue to work closely with LTCC to develop the skills training and knowledge in areas most needed by the workforce. The role of LTCC will be to scale a parallel job placement and enrollment program that fosters industry alignment with community college partnership.

Reedley College is situated in the City of Reedley, southeast of Fresno and just west of the Sierra Nevada mountain range. Reedley is a diverse community, and the college is a designated HSI. Reedley's communities have also felt the effects of wildfires. To respond to industry and climate change needs, Reedley College launched a Wildland Fire Program.

Reedley College has taken a leadership role in the advancement of wildland fire training and improving the quality and quantity of entry and mid-level skilled fuels management and fire-safety positions throughout the state. A full-time Wildland Fire Faculty member is a 20-year fire veteran who spent 17 years with the U.S. Forest Service as a wildland firefighter, trainer, supervisor, leader and manager. His knowledge of training program development and course delivery provides a model for other colleges to hire similarly experienced professionals.

Reedley College's role will be to create stronger ties to tribal partnerships, reach Latinx, women, and military veterans populations, and solidify a pipeline of worker placements in the forest regions in and around eastern Fresno County.

Shasta College is well-positioned to provide leadership as a backbone organization that aligns curriculum with industry and maintains a pipeline fulfilling sector needs. The campus in Redding has active relationships with partners and advisors from private employers, key industry associations, and public agencies. Shasta College serves Shasta and Tehama counties, which have 15.2% and 17.0% poverty rates respectively.

Many of the private logging companies in the Sierra Nevada region rely upon Shasta College to fill their workforce needs. For example, the California Registered Apprenticeship Forest Training (CRAFT) is a multi-employer apprenticeship designed and managed by private industry. The Heavy Equipment Logging Operations (HELO) certificate program was designed in close partnership with industry and is continually reviewed to ensure alignment between curriculum and real-time industry needs. Shasta College also partners closely with commercial log truck driving employers, which is an important aspect of maintaining forest health.

The role of Shasta College will be to use its various programs to provide a tangible example of establishing strong relationships with employers in an industry which is traditionally slow to

adopt changes in employment practices and innovative technologies. The Hub will utilize this knowledge to forge stronger statewide ties between large and small forestry sector businesses for the purpose of understanding the most effective ways to align community college education programs with industry needs, while being flexible and responsive to industry needs.

Strategic Partners: The Hub also includes several statewide strategic partners to leverage significant state investments and expertise. The California Governor's Office and state legislation have prioritized addressing forest health and wildfire relief, which includes funding CAL FIRE and the California Conservation Corps. The resources and expertise of strategic partners will bolster the work of each backbone.

Sierra Business Council (SBC) brings well-established small business development programs and expertise in climate and forest communities. As a recognized leader in forest health and fire-safe communities in the Sierra Nevada region, SBC harnesses opportunities in change and challenges to execute projects that model proactive change. SBC has a track record of successfully implementing diverse, inventive, and sustainable initiatives that lead to a vibrant economy through a diverse workforce with a thriving forest.

SBC will provide technical assistance to launch small business and entrepreneurial development. SBC will provide training and guidance for transforming businesses from individual ownership to cooperative businesses to support economic justice at business ownership levels. This work will be done by expanding SBC's existing Forest Entrepreneurs Program. SBC will showcase emerging business opportunities that have co-benefits of wildfire reduction and economic development. The initial focus will be on the development of businesses with a nexus to existing markets and identified needs such as forest thinning and management, application of prescribed fire, small mass timber product manufacturing, small diameter timber utilizations, biofuels manufacture, and logistics and support. As new wood utilization technologies advance, additional targets may be identified.

University of California, Agriculture and Natural Resources (UC ANR) is part of the state's land grant university and carries out applied research, outreach, and education in forestry and natural resources across the state. UC ANR will leverage its expertise in forestry, forestry advisors that are embedded and reside in forest communities, lead applied research, and inform curriculum development, including the UC California Naturalist Program to deliver forestry skills training, environmental education, and applied research techniques through a community-based model. UC ANR will serve as a bridge to forestry education within the UC system. The UC ANR forestry advisors are trusted residents of forest communities, and have been re-aligning local community colleges' training programs to meet changing industry needs. UC ANR advisors have also identified areas of improvement to ensure that all community members can take advantage of the career possibilities presented through the forestry sector.

California Conservation Corps is a state agency that will serve as a pipeline for individuals who show interest in forestry careers and provide additional support in equitable enrollment and outreach. The Corps will provide backbone organizations with credential-worthy participants and industry with skills-ready workforce entrants⁶.

⁶ See Attachment C, page 3 for the center locations of the California Conservation Corps

California Department of Forestry and Fire Protection (CAL FIRE) is a state agency dedicated to the fire protection and stewardship of over 31 million acres of California's privately-owned wildlands. CAL FIRE has broad reach across the region and is a committed employer for this project. CAL FIRE will also be a strategic partner for outreach, recruitment, and sustainable practices to ensure the longevity of these programs after Good Jobs Challenge grant funding concludes. CAL FIRE also contributes significant funding to Hub partners that will be leveraged during the performance period.

Tribal partners currently work with Hub partners in a number of ways. CSU, Chico has a model program for partnering with tribes through a dedicated tribal liaison who will continue discussions with the Mechoopda Tribe. The Mechoopda Tribe has worked with CSU, Chico's BCCER on projects, providing training on indigenous culture-based forest stewardship to students, including cultural burning training. Other examples include Feather River College, which will expand partnerships with the Maidu Tribe to support outreach, recruitment and training of tribal members. Feather River College also plans to hire a tribal liaison and develop a Maidu Advisory Committee to inform curriculum and training in the realm of appropriate fire use and landscape restoration. Reedley College will continue their partnership with Big Sandy Rancheria of the Mono tribe in Auberry, California for their fire-safety training and cultural awareness workshops. Existing relationships with various tribes will be coordinated across partners and formalized as a priority benchmark in phase one of the project.

Section 3: Regional Description

The Hub's primary service area will cover the Northern Interior, Sacramento, and Northern parts of the San Joaquin forest regions⁷. Unemployment rates in these regions are consistently above national and state rates. In December 2021, unemployment rates were as high as 15% in the region. Additionally, industry partners indicated that a lack of job opportunities within the region and qualified candidates were the cause for increasing unemployment⁸.

Supporting the forestry and fire safety industries directly aligns with the Comprehensive Economic Development Strategy or Economic Development District plans (CEDDS) for the proposed region. Each CEDDS plan indicates the important role forestry and fire-safety jobs have in providing economic benefit in their rural communities. Six CEDDS plans have guided the development of this proposal:

- 3CORE: Butte, Glenn, and Tehama counties
- Central Sierra: Alpine, Calaveras, Mariposa, and Tuolumne counties
- Greater Sacramento: El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba counties
- Sierra: El Dorado, Nevada, Placer, and Sierra counties
- Superior: Modoc, Shasta, Siskiyou, and Trinity counties
- Yuba & Sutter: Yuba and Sutter counties

These CEDDS will guide program design and implementation. Across these CEDDS, income disparities persist in rural communities heavily dependent on tourism and seasonal work.

⁷ Economic Contribution of California's Forestry and Forest-Products Sectors:
<https://anrcatalog.ucanr.edu/pdf/8670.pdf>

⁸ California Labor Market Review 2021:

<https://www.labormarketinfo.edd.ca.gov/Publications/Labor-Market-Analysis/calmr.pdf>

California has 20% of all net worth concentrated in the 30 wealthiest zip codes; yet forested, rural regions suffer with median incomes significantly below the state⁹. Trainees served will be placed in quality, full-time employment. Table 1 provides the current employment and income statuses of various industries the Hub plans to strengthen and enhance.

Table 1: December 2021 Industry Employment and Median Income by Industry¹⁰

Industry	Employment	Median Industry Income
Fire management	23,479	\$68,400
Forestry and logging	5,748	\$46,450
Wood biomass electricity	365	\$191,780
Solid wood product manufacturing	26,456	\$51,110
Pulp and paper manufacturing	22,238	\$89,130
Wood furniture manufacturing	27,005	\$47,658
Utility arborists and assessors	11,872	\$52,634

Working in collaboration with CEDS planning committees, the NSPDC conducted the Forest Sector Workforce Needs Report and found the hardest to fill positions were entry-level field employees, foresters, and fire management technicians. While these positions are in-demand, there remains a gap between the open positions and workforce supply of skilled labor. Four of the top challenges for these sectors include:

- Lack of on-the-job training, specifically related to management and operations
- A disproportionately large amount of personnel within the sector are reaching retirement age
- Negative perceptions of the industry among young people
- Reaching underserved populations with labor market barriers

California’s forests stretch over 33 million acres of the state. Sixty percent is publicly owned while the remaining is privately owned by timber companies, individuals, and tribal entities. The Hub will cut across public and private jurisdictions to serve approximately half of the forested lands in California, with a goal to scale and expand into other regions (See Attachment C). Building the forestry and fire-safety sectors could contribute approximately \$39 billion in forestry-products and fire-resiliency industries and add 177,000 jobs to the California workforce². In contrast, the Sierra Nevada region has 20 percent of the population living below the poverty line and 11 percent of educated or trained workers unemployed¹¹.

⁹ Income Inequality in California: <https://www.ppic.org/publication/income-inequality-in-california/>

¹⁰ California’s Wildfire and Forest Resilience Action Plan: <https://fmtf.fire.ca.gov/media/cjwfpckz/californiawildfireandforestresilienceactionplan.pdf>

¹¹ Regional Economic Demographic Snapshot - Sierra Nevada: <https://next10.org/sites/default/files/sierra-nevada-econ-snapshot.pdf>

Since 2018, over 10 million acres of forested lands in California have burned. Forested rural communities have been decimated by record-breaking wildfires accelerated by climate change. Experts estimate the 2018 Camp Fire, located in the Hub’s primary service area, cost California \$9.3 billion. In response, public safety and ecology experts have charged the forestry workforce to treat one million acres of forested land annually to mitigate future wildfires and respond to the growing climate change needs. Wildfires also affect the health and safety of communities outside of wildfire-prone areas, including urban centers, with reduced air quality and increased health issues. However, the forestry workforce supply is not meeting employer demand, which has led industry experts and leaders to call for action.

To meet this demand, the Hub will create and expand jobs in the following sectors: Agriculture, Forestry, Fishing and Hunting sector (NAICS 11), Administrative and Support and Waste Management and Remediation Services (NAICS 56), Utilities (NAICS 22), and Transportation and Warehousing (NAICS 48). These broad sector NAICS codes are necessary due to the broad scope of forestry in California and the extensive gap in the workforce. Additionally, these sectors feed the emerging sector of climate-resilient landscapes, which refer to the ability of forests and other rural regions to sustain biodiversity and ecological functions over time in the face of climate change and other natural stressors¹².

Mitigating fire risk and restoring healthy forests requires skills training across many sectors. Removal of trees require remediation and restoration services to protect and restore watersheds, control erosion, and build roads for hand crews and logging equipment operators. The transportation sector transports logs, woody biomass, and other residuals off the forest floor. And the wood products manufacturing sector transforms those materials to lumber, clean biomass energy, and other market-demanded products. Throughout this process, forestry professionals manage compliance with regulations and plan reforestation to ensure forest health. Each of these phases have cross-sector applications and overlapping workforce needs.

The Hub will create more flexible and versatile training institutions that respond to the needs of industry and match training cycles to current and emerging needs. More opportunities are on the horizon for the sector to innovate and adapt new approaches. The Hub will disseminate and spread resources and feed complementary training programs to train workers for entry and middle level, jobs that provide living wages, benefits, and opportunities for career growth.

Section 4: Impacts of the Regional Workforce Training System

Section 4a: The Hub proposes all three phases (system development, program design, and program development) to execute a three pronged approach over the course of four years:

- Scale existing training and placement programs to begin placing workers and immediately responding to employer needs;
- Facilitate strategic coordination among the Hub to align resources, share learnings, and intentionally and systematically expand programs to meet workforce needs and ensure workers have access to stackable training pathways that lead to good forestry jobs; and
- Elevate the Hub’s equity imperative through coordinated statewide outreach and recruitment, and retention efforts, especially through provision of wraparound services.

¹² Definition adapted from the Nature Conservancy: <https://www.nature.org/en-us/>

The Hub will focus on a combination of forest health and fire-safety jobs. To increase California's workforce capacity towards both meeting employer demand and mitigating the climate crisis, the long-term goal of the Hub will be to professionalize careers that safeguard the health of forests, reduce wildfire risk, and trigger innovations in environmental restoration, while directly benefiting underserved Californians by providing pathways into high-demand, high-quality forestry and conservation careers.

Developing the Hub: An Aligned Forestry Sector: The Hub will align existing sector partnerships into a statewide infrastructure focused on expanding training programs to meet employer needs and place workers in quality jobs. One of the primary needs of this sector is a statewide strategy on recruitment and outreach. Currently, most employers recruit new employees through word of mouth or internal recruitment efforts. The Hub will create a statewide approach and targeted local plans for recruitment of trainees with a focus on rural residents and populations with labor market barriers that are under-represented in these industries and with limited access to good jobs.

Collaboration in the Hub: Designing and Implementing Programs: The strength of this proposal stems from the extensive knowledge and experience Hub partners bring, including strong connections to employers and being well attuned to the economic and climate resilience needs of their communities. Backbone organizations individually possess the components and resources of a successful regional workforce training system, but there is a need for a responsive, strategically coordinated to the forestry and fire-safety industries and provide the space for the climate resilience landscapes sector to flourish.

Phases in the Hub: System Development (July 2022 to December 2022): The Hub will establish powerful working relationships, identify disconnects between workforce supply and training opportunities, and capitalize on opportunities to advance wraparound support delivery. This phase will leverage industry partners' knowledge to drive learning outcomes and match in-demand skills for relevant industry-sought credentials. The Hub will conceptualize career pathways with strategic pivot points and highlight skill sets that cut across various occupations.

Program Design (January 2023 to December 2023): The Program Design phase will build capacity and resources for outreach, recruitment, training and placements. The Hub will pilot newly integrated training components and begin job placements by the 24-month mark. Pilot programs will inform future program refinement. Backbone organizations will increase their capacity to meet enrollment needs by purchasing education and training equipment and securing additional technical expertise to train workers.

Program Implementation (January 2024 to June 2026): The Program Implementation phase will commence fully-scaled training and placements and the shared resource infrastructure of the Hub. Several full cohorts of trainees will be placed into good jobs. This phase will also launch a statewide and localized outreach and recruitment campaign that focuses on recruiting diverse workers. The goal will be to diversify the incoming trainee cohorts to ensure the economic benefits of this program are equitably distributed.

Section 4b: The Hub aligns with four of EDA's investment priorities: Recovery and Resilience, Equity, Workforce Development, and Environmentally-Sustainable Development.

Recovery and Resilience: The Hub will entrench a responsive infrastructure in the region reflecting steady-state characteristics in the emerging climate-resilient landscapes sector, which is specialized forest management to promote forest resilience in the face of climate change. Across CEDS plans, tourism and seasonal recreational activities drive the economy, and there is a need to diversify the industry concentration with several counties considered low industry diversity¹³. Investing in the climate-resilient landscapes sector will broaden the industrial base through coalescing the region's unique assets (forests and waterways), cutting-across sectors, and transforming the region to a shock absorbent economy with a diverse array of occupations. The Hub will facilitate resource sharing and adaptive workforce training systems to provide stability for industries and workers during economic downturns and national disasters.

Addressing disaster response in the region, the Hub will integrate CEDS goals to train a resilient workforce with diverse skills to quickly and effectively respond to wildfires. With wildfires a constant threat to the region, workers' ability to shift across occupations and jobs will increase the health of California's forests to both prevent and better respond to future catastrophic wildfires. Flexible and interconnected career ladders allow industry and workers to withstand economic disruptions, including manmade and natural disasters, such as a global pandemic. The Hub will integrate technology to develop proactive pre-disaster mechanisms, in alignment with CEDS plans (e.g., training on geographic information systems (GIS) to track forest health and workforce presence), to continually assess areas for workforce deployment and redistribution. This creates responsive capacity in the region that links training, workforce monitoring, and disaster relief, and advances the climate-resilient landscapes sector.

The Hub will engage local and state officials to address industry partners' needs and the flow of good job creation in the region. Businesses will learn resilience practices that cut across sectors and highlight common challenges faced by industry and workforce training. These partnerships will uncover opportunities to forge regional and industry solutions and respond to income inequality assessments in the region.

Equity: The Hub will prioritize advancing equity by framing its work around the needs of key populations (see section 4e below). With an aging workforce, the forestry sector is in dire need of new trainees and diversification to ensure sustainability. The Hub will also explore outreach and recruitment strategies for workers to help bring skills and capacity to rural communities. Tribal partners will be engaged, especially in relation to their cultural knowledge of prescribed burns and ecological restoration. Diversifying the workforce will bring new knowledge and perspectives that are key to the long-term prosperity of the climate-resilient landscape sector.

Workforce Development: The Hub plans to begin placing trainees within 24-months of the performance period. Backbone organizations will deliver training programs that develop the skills and experiences necessary for workers to secure a job and advance along a well-paying, quality career path, while providing mentoring to navigate occupational nuance. Employers will provide feedback to adapt training programs to match their current and future workforce needs. By providing technical assistance and facilitating knowledge sharing, the Hub will foster the expansion of small business and entrepreneurial leadership and spur innovative practices in such industries as home hardening practices, timber end-product development, biofuels, and fire-

¹³ Economic Diversity Tool: <http://economicdiversityinappalachia.creconline.org/> (California)

damaged timber industries. A diverse, high-skilled small business workforce will launch previously uncharted industries that are responsive to regional needs.

Environmentally-Sustainable Development: A healthy forestry and fire-safety sector will address the climate crises. Investments in employer needs in this sector will accelerate greenhouse gas mitigation and build climate resilience across the region. The Hub will scale environmentally-sustainable practices, such as the utility line clearance program. This program highlights the importance of green-processes, which will enhance business partners' end-product development into innovative spaces for green-product discovery.

Section 4c: The number of projected job placements over the entire grant period is 1,505. Job placements will begin within the first 24 months of the grant period. Table 2 provides estimates about the number of individuals served during the grant period. Table 3 provides select details about the types of jobs, median salary for the region, and occupational benefits¹⁴.

The Forest Entrepreneurs Program run by SBC will support 12 cohorts of 12 -20 forest business entrepreneurs, for a total of approximately 400 individual participants over the four year program. The program is expected to conclude with the creation or expansion of 50 small businesses focused on wood utilization employing between 200-300 people.

Table 2 - Demographic recruitment, trainee completion, and job placement projections

Category	Recruited	Trained	Placed into Good Jobs	Totals
General Outreach	693	567	464	1,724
CA Conservation Corp	365	300	280	945
Adult Learners*	147	132	106	385
English Learners (ESL)	74	66	53	193
Women	308	253	224	785
Indigenous	75	43	32	150
Latinx	285	186	148	619
Low-SES	212	175	156	543
Veteran	65	45	42	152
Total	2,224	1,767	1,505**	

**Adult learners targeted by the hub outreach and recruitment efforts will be those with low educational attainment levels and significant barriers to employment*

***Approximately 70% of all placements are projected to be historically disadvantaged individuals in these sectors (people not captured in the “general outreach” category).*

¹⁴ Data provided by EMSI (<https://www.economicmodeling.com/data/>) and preliminary findings from the Forest Sector Workforce Study 2021, CSU Chico

Table 3 - Occupations with estimated monthly salary, benefits, and educational requirements¹⁴

Targeted Positions	Salary	Fringe Benefits	Educational Level
Arborist Pre-Inspector	\$5,600/mo	Full time, health benefits	Certification
Conservation Scientists	\$6,100/mo	Full time, health benefits	Baccalaureate Degree
Defensible Space Inspector	\$4,100/mo	Full time, retirement, union	Associates Degree
Entry Level Logging Crew	\$2,800/mo	Full time, overtime, health benefits	Certification
Environmental Scientists	\$6,550/mo	Full time, health benefits	Baccalaureate Degree
Fallers	\$4,250/mo	Full time, health benefits	Certification
Fire & Forestry Crew Leads	\$3,840/mo	Full time, health benefits	Associates Degree
Fire Prevention Supervisors	\$5,800/mo	Full time, health benefits	Certification
Firefighter and Fire Crews	\$6,250/mo	Full time, retirement, union	Associates Degree
Foresters	\$5,350/mo	Full time, health benefits	Associates Degree
Forestry Aid (CAL FIRE & USFS)	\$3,600/mo	Full time, retirement, union	Associates Degree
Forestry Tech (CAL FIRE)	\$4,600/mo	Full time, retirement, union	Associates Degree
Fuels Technician	\$3,600/mo	Full time, health benefits	Associates Degree
Heavy Logging Equipment Operators	\$3,360/mo	Full time, overtime, health benefits	Certification
Log & CDL Truck Drivers	\$3,950/mo	Full time, overtime, health benefits	Certification
Telecommunications Clearance	\$5,900/mo	Full time, health benefits	Certification
U.S. Forest Service Crew member	\$4,400/mo	Full time, retirement, union	Associates Degree
Utility Line Clearance	\$5,760/mo	Full time, health benefits	Certification

The Hub is capitalizing on this opportunity to leverage efforts and funds to address forest health and fire resilience. California’s governmental leaders, philanthropic funders, and policy advocates have called for wildfire relief and forestry management coordination. However there remains a gap to connect these pieces. The sheer amount of leveraged funding, estimated at \$19,057,461 over the four year period, demonstrates the value, support, and commitment of the state and local communities for this proposed work.

Section 4d: While the Hub will be a new formation, partners have been eager to collaborate on this proposal, and have the employer and organizational buy-in for the Hub to succeed. FoundationCCC will support Hub partners as they increase capacity, implement changes at scale, and achieve common goals. As outlined in Section 1b, FoundationCCC has experience facilitating communities of practice and collaborative, interagency projects across the state.

All these factors combined will ensure the Hub places the number of projected workers into good jobs and achieves the other coordination and equitable outreach and recruitment goals of this project. Additionally, we are proposing a four year project to ensure sufficient time to achieve strategic changes within this workforce training system and implement sustainability measures. Changes within a large system, including within public higher education systems, take time and

buy-in from faculty, administrative staff, and leadership. The letters of commitment from each backbone organization and strategic partner demonstrate commitment at the highest levels. However, a four year performance period will provide the necessary time to implement any changes to college or university policies or practices.

Section 4e: The Hub will target outreach, recruitment, retention, and placement among the following participant groups: adult learners with low educational attainment levels and barriers to employment; English-language learners; Hispanic/Latinx; indigenous; low income/low socio-economic status workers; veterans; and women. Many of the targeted participant groups have been historically underrepresented in this sector, despite significant representation within rural communities. For example, students from tribal communities live and work in these rural areas, and have indigenous knowledge and cultural perspectives on maintaining forest health, but are not well represented within the field. The same is true for women who only comprise 16% of the current workforce in this male dominated field.

In this area, the California Conservation Corps will be a primary partner for recruiting diverse participants. The Corps has a strong reputation for diverse recruitment, and this experience will inform the development of outreach and recruitment strategies.

Section 5: Funding Request and Program Design and Implementation

Section 5a: FoundationCCC requests a total of \$22,964,202 from EDA over a four year period to form the California Resilient Careers in Forestry Hub that will place approximately 1,505 workers in good jobs that meet the needs of employers in the forestry and fire-safety sector. In alignment with the attached SF-424A budget, FoundationCCC forecasts needing \$4,168,386 in the first two quarters of year one, which primarily aligns with phase one, and \$2,778,924 in the remainder of year one. Year two forecasted needs are projected at \$5,831,805, year three at \$5,495,915, and year four at \$4,689,172.

The requested EDA funds are justified given the size of the region, which includes approximately 20 million acres of forested land, plus an extensive communications and outreach scope needed to recruit and support diverse trainees throughout the state; the diversity of industries included within the sector; and the initial capacity building costs associated with ensuring workers have safe and relevant equipment pertaining to their job training. Equipment purchases are a significant cost request, and are necessary to ensure training programs provide safe and effective training to workers.

Section 5b. System development will serve as a planning and level-setting phase to help established programs identify how to collaborate over the grant period. The Hub will draft strategic plans that will guide phases two and three. Benchmarks include:

- Formalize roles and responsibilities of backbone organizations and strategic partners, including bringing on new partners and employers, as appropriate;
- Develop a plan for long-term professionalization of the forestry sector in California;
- Formalize relationships with tribal partners; and co-develop a plan to adapt tribal partners' culturally relevant practices to reach their communities more effectively;
- Develop an employer engagement plan; and identify employer partner needs related to recruitment, staffing and placement services;
- Develop a plan to integrate wraparound services into training program structures;

- Develop a statewide and localized communications and outreach campaign;
- Identify methods to solicit feedback from workers on the effectiveness of training programs and wraparound supports offered; and
- Develop a plan for effectively collecting data across the Hub and working with EDA's evaluation process during the performance period.

Program Design will support capacity building and pilot scaling of existing training programs to inform future iterations of training and placement. A structure will be built for strategically coordinating across partners. Benchmarks include:

- Develop the Hub's shared resources infrastructure to support exchange of curriculum models, enrollment information, and lessons learned among partners;
- Secure equipment and other necessary resources to ensure safe and effective training;
- Pilot training and placements (see Attachment C, page 2 for list of Upskill Programs);
- Launch small business development component;
- Pilot employer and worker engagement mechanisms;
- Integrate wraparound supports into training programs;
- Develop outreach and recruitment materials and test materials and messaging;
- Provide employers with strategies to recruit and retain diverse employees; and
- Build capacity and launch processes for tracking data.

Program Implementation is when the Hub executes at scale training and placements of workers into quality jobs. The long-term vision is to build a sustainable, strategic, resource sharing infrastructure that responds to industry needs quickly and innovatively. Benchmarks include:

- Creation of a career ladder to highlight clear pathways into better jobs and promote the opportunities available to increase more equitable awareness and data tracking;
- Full scale training, placement, and implementation of career ladder;
- Support entrepreneurs with the creation of small businesses and co-op models;
- Integrate learnings from tribal partners into training curriculum and implement other methods to continue engaging tribal partners in this work;
- Collect employer feedback and iteratively translate needs into training and curriculum;
- Implement improvements to wraparound supports;
- Launch outreach and recruitment campaigns. Collect data on impact and refine to ensure reach into diverse communities;
- Collect data, collaborate with EDA evaluators, and refine plans based on outcomes.

Section 5c. Wraparound services for these rural populations include childcare support, transportation to remote worksites, navigating housing restrictions, Spanish language support, small business coaching, career navigation and coaching, and access to broadband and technology. The Hub will identify the various wrap-around services workers need, and integrate resources into training programs. Partners will leverage existing campus services (such as residential housing, childcare facilities, veteran resource centers, and food pantries), and local workforce development boards to provide wraparound services. The Hub will prioritize identifying and mitigating barriers to ensure all potential workers feel a sense of belonging in the program and have the support they need to complete training programs.