

Position Title: Cultural Burning and Indigenous Land Stewardship Advisor, located at HREC.

Position: (1) This position will provide leadership in Mendocino and Lake Counties in: evaluating and implementing cultural burning as a fire hazard mitigation and eco-cultural revitalization strategy that enhances the resilience of our regional communities and fire-adapted ecosystems and promotes Indigenous food sovereignty; understanding fire effects on human communities and ecosystems; developing innovative partnerships that enable active cultural fire management and empower Indigenous land stewardship; networking, outreach focused on fire ecology, cultural resource management, climate change adaptation, and community wildfire resilience; research on methods of and effects from various cultural burning techniques. (2) This position requires expertise and experience in the broad areas of fire ecology, traditional ecological knowledge (TEK), land management, prescribed fire/cultural fire, and community wildfire resilience including a M.S. in a related degree. Desired characteristics include a background in cultural resource management and heritage preservation, participatory research, ethnobotany, co-management, and research to policy. (3) This position will be housed at HREC. They will report to the Mendocino County Director, and will work closely with the HREC Director and with UC ANR Advisors and Specialists who work with fire and youth development, and researchers, Tribes, and professional resource managers throughout the region and state. *This is part of the Indigenous Communities Cluster proposal.*

Justification: With increasing population, a changing climate, and ongoing drought, the fire trends are clear: fire probabilities and risks in California have increased over 50% since the 1960s. The recent large wildfires that burned into urban areas such as Santa Rosa, Paradise, and Redding also illustrate the need for more fire advisors working with communities at the wildland urban interface. Mendocino and Lake Counties have experienced enormous fire impacts in the past few years. Fire exclusion has reduced the abundance of culturally significant plant and animal species. Many tribal communities across the state, including The Pomo, The Karuk, Yurok and North Fork Mono Tribes, and Amah Mutsun Tribal Band, are actively seeking partnerships to revitalize, relearn, and support Indigenous management systems and cultural stewardship processes as a key strategy for enhancing and protecting biodiversity and creating resilient communities under changing climate conditions. The University of California, which was founded on and continues to benefit from the continued occupation of expropriated Indigenous lands through the Morrill Act, has an obligation, an evidence-based rationale, and a rich opportunity to invest in Native communities to strengthen and support their cultural burning capacity. There is growing opportunity through new fire legislation, including SB332, to scale up cultural burning in partnership with tribes, and tribal-led organizations, federal and state agencies, as well as local groups such as Fire Safe Councils and Prescribed Fire Associations statewide. This requires working with public and private landowners, including tribes and tribal-led organizations, to facilitate Indigenous land stewardship opportunities that will lead to (a) protecting California's natural resources, (b) promoting healthy people and communities, and (c) building climate resilient communities and ecosystems, while (d) developing a more inclusive and equitable society and (e) promoting economic prosperity in California. This Advisor will fill and bolster critical gaps within ANR's fire extension and cultural resource management footprint and allow UC to provide critical leadership and science to support these efforts, serving as a model for land grant universities in fire-prone regions across the country.

Extension: This Advisor will extend research-based information on fire ecology, Indigenous stewardship and management, cultural burning and fire-related topics through field days, conferences, trainings, newsletters, technical publications (online and print), policy briefs, webinars, and social media. Key clientele groups include Tribes, Native youth, federal and state agencies who work on fire and fuels management; private landowners and resource managers, and other professionals with an interest in fire and Indigenous stewardship and management; regulators and policy makers; and Fire Safe Councils and other community groups working on community-based fire adaptation. Key responsibilities include (1) partnering with Tribes and tribal-led organizations to plan and conduct cultural burn activities based on ethno-botanical and cultural archeological research, (2) facilitating vocational training opportunities for Native youth in partnership with tribal networks across the region in all aspects of cultural burning, TEK, firefighting and post-fire recovery planning and implementation, (3) supporting a network of Indigenous-led and stewarded biodiversity landscapes, and creating pathways for collaborative research that can be translated to policy, (4) developing a culturally inclusive TEK/Indigenous land stewardship

project in partnership with the Hopland Band of Pomo Indians at the HREC and providing support to tribes, government and private land managers region-wide in developing innovative Indigenous stewardship models.

Research: The Advisor will focus their research on Indigenous cultural burning effects in different habitat types; efficacy of fuel treatment and reduction strategies, targeted grazing, cultural burns, and mechanical thinning; techniques for integrating fire with culturally significant flora and fauna to enhance Indigenous food sovereignty; cultural and ecosystem processes and recovery after fire; methods for decreasing the impact of wildfire on human communities through Indigenous land stewardship, management and planning practices. Research findings will be extended through UC's California Agriculture and other journals, including Fire Ecology, Society and Natural Resources, International Journal of Wildland Fire, Journal of Forestry, and Range Ecology and Management.

ANR Network: This Advisor will work closely with the UC ANR Fire Advisor network, CE Specialists focused on forests, fire, and fuels management, AES faculty such as Elizabeth Hoover and Peter Nelson at UCB who research Indigenous food sovereignty and Indigenous archaeology, and UCANR advisors in forestry, natural resources, fire science, and range throughout California. They will be supported by the DEIJ PT, UC SAREP, CalNat, the Native American Community Partnerships work group and the Karuk-UC Berkeley Collaborative.

Network External to ANR: This Advisor will build on existing networks of scientists and staff within state (i.e., Cal Fire, CA Department of Fish and Wildlife) and federal agencies (i.e., BLM, Forest Service, US Fish and Wildlife, Natural Resources Conservation Service) as well as Tribes (i.e., Karuk, Yurok, North Fork Mono, Amah Mutsun Tribal Band) and tribal heritage preservation offices responsible for protection of cultural heritage sites, land use and planning specialists at the regional level (i.e. California Fire Science Consortium, Prescribed Burn Associations, Fire Safe Councils, private land managers). The Advisor will be expected to develop relationships with policy makers along with Tribes and related organizations across the state, including 13 recognized local Tribes. Potential collaborations include educational events, research projects, live-fire trainings, and presentations.

Support: HREC offers office and lab space, vehicles and equipment for transportation and field work, a conference hall for extension events, an on-site GIS specialist, and accommodations for research collaborators and extension participants. In addition, HREC has an existing relationship with the Hopland Band of Pomo Indians and over 5300 acres of land, with 65 years of research and management records. With a 10-year Vegetation Treatment Plan in process with CAL FIRE, and having experienced a recent wildfire event, the tools and relationships are in place.

Other support: CAL FIRE, The Nature Conservancy, CalNat, USDA Forest Service, California Fire Safe Council, Joint Fire Science Program, Pepperwood Preserve, and Wildfire Research Network are all potential sources of support for research and education activities. This position would be expected to apply for competitive grant programs both from ANR and extramural sources such as USDA (NIFA, Forest Service), EPA, NSF, NGOs, and California programs funded by the Greenhouse Gas program, timber tax, and fire mitigation funds.

Location: By locating this Advisor at HREC, ANR will be reinforcing its existing infrastructure and investments while allowing the Advisor to easily and directly plan and oversee their research and extension activities where they have the resources to create an effective program. It is the most suitable REC in the UC system for collaborating on grounded live-fire science, with an opportunity to partner more closely with the Hopland Band of Pomo Indians around Indigenous land stewardship. HREC is only 2.5 hours from UCD, UCB, and Sacramento allowing easy collaboration with campus-based academics, staff and policy makers, and is in an area of the state with recent and ongoing severe fire activity meaning regional interest in this position is high.

Developed and proposed by: John Bailey (HREC Director) and Climate Change PT (co-submitters), with input from UCANR specialists Jennifer Sowerwine, Max Moritz; Scott Stephens (AES-UCB); UCANR Advisors Yana Valachovic, John Harper, Jeff Stackhouse, Lenya Quinn-Davidson, Michael Jones; DEIJ PT; and external stakeholders: USDA NRCS, Mendocino County RCD, Mendocino County Fire Safe Council, with letters of endorsement from the [Hopland Band of Pomo](#)s and the [Potter Valley Tribe](#).