

## Proposed CE Advisor Position

**Headquarters:** El Dorado County / Lake Tahoe Basin  
**Counties Served:** The Central Sierra Nevada Multi-County Partnership  
(El Dorado, Amador, Calaveras and Tuolumne Counties)  
**Position Title** Forestry / Natural Resources Advisor

**Position Description:** Outline a position's: (1) general disciplinary focus; (2) educational and professional background requirements; and (3) supporting units (county, multi-county areas, department, statewide program, etc). Do not include boilerplate text to the effect that academics are responsible for extending knowledge and information; applied research and creative activity; professional competence and activity; and University and public service.

(1)The general disciplinary focus will be conifer forest resource management and the sustainable use of natural resources in El Dorado, Amador, Calaveras and Tuolumne Counties. Forest stewardship, water quality, wildland fire, invasive species, pest management and air quality are appropriate aspects of forest resource and natural resource management for this position to address. (2) A degree in forest management, ecology, fire science, watershed management or other closely related disciplines is required. As per ANR policy, the individual in this position will be required to obtain the registered professional forester license from the State of California. Experience in one of the appropriate aspects of forest management is necessary. (3) This position has been identified as filling a critical need by the County Directors serving this multi-county partnership, the Forest Ecosystem and Communities Workgroup, Blodgett Forest and by the Center for Forestry at UCB.

**Relevance to the ANR Strategic Vision:** Explain how the position would contribute to addressing the priorities outlined in the *ANR Strategic Vision* (<http://ucanr.org/files/906.pdf>).

This position ties closely with the ANR Strategic Vision and will contribute significantly to the success of the initiatives. The position will focus on developing sustainable timber harvest practices to maintain the economic viability of California while improving environmental and water quality and conserving natural resources. The position will work with landowners, government and non-government agencies to reduce risks to wildfire and speed up post-fire revegetation. Lastly the position will focus on making healthier communities by providing access to the research and education of the University by expanding science literacy to youth.

**Initiatives to be addressed:** Discuss the strategic initiatives described in the *ANR Strategic Vision* that will be addressed by this position. Include outcomes anticipated from the programs of this position.

This position can contribute to developing knowledge and/or bringing together information to address a myriad of ANR Initiatives. Issues and importance to this position are briefly summarized:

- Improve Water Quality, Quantity and Security – The myriad of management strategies employed on forest systems have a wide range of effects on water quality and quantity, which have implications for numerous beneficial uses of water downstream from these forest systems. One of the prime threats to water quality in the Lake Tahoe Basin is the current situation of immense buildups of fuel in the forest systems. Applied research and public and professional education programs could address this problem, significantly reducing the wildfire threat and associated impacts, including impaired water quality.
- Sustainable Natural Ecosystems - Products from forest systems continue to be the #1 agricultural product in most of these counties, and from the Sierra Nevada. Innovative management and harvest strategies are needed for this industry to continue to be viable in face of global competition and increasing regulatory constraints. Forests play an important role in the global climate change as well as in more local air quality. Differing forest management strategies have significant implications in the future of air quality.

The human, environmental, and economic impacts are huge in this area. Greater understanding of fire behavior, the ecological role of fire in natural systems, ecosystem health, and fire suppression strategies are all needed. Fire and fuels management directly affect water and air quality, and have impacts on habitat, invasive species expansion, and human habitation, among other areas.

- Managing Endemic and Invasive Pests & Diseases – Numerous invasive species problems exist in these forest systems and Lake Tahoe, affecting biodiversity, water quality, and ecosystem health.

**Extension:** Outline the key extension activities the position will be expected to fulfill, the key clientele groups the academic will be expected to interact with, and the anticipated nature of these interactions.

The advisor will be responsible for conifer forest resource management, water quality in the Lake Tahoe Basin and neighboring county watersheds, aquatic and terrestrial invasive species, and wildfire prevention. The advisor will be expected to partner with University of Nevada Cooperative Extension, government agencies and non-government organizations within the four county area including the Lake Tahoe Basin, Blodgett Forest and others to develop and extend information appropriate for local clientele groups of forest landowners, resource professionals, local communities, and decision makers. This includes workshops, short courses, and local and statewide publications on topics such as sustainable approaches to the use of natural resources, vegetation management approaches for reducing fire risk to both forest systems and communities, cost effective vegetation management strategies for small landowners, integrated pest management strategies, and management practices to minimize water quality impacts, among others.

**Research:** Identify the key research questions the position will be expected to address as specifically as possible, and the expected publication outlets for that research (both ANR and external).

Close affiliation with UC Blodgett Forest Research Station provides a unique opportunity for the advisor to partner with faculty and specialists in conducting applied research projects. Some of the research questions appropriate to this position are:

- What is the role of fire, and can the natural role of fire be duplicated by other management practices? A key collaboration would be examining the role of fire and ability of other treatments to duplicate the effects of fire.
- How can woody biomass be removed and contribute to a viable economic enterprise? A key role would be examining the potential uses of biomass and looking at methods of biomass harvesting, to develop economically and environmentally sustainable industries based upon woody biomass from the forest.
- How can water quality and quantity be improved through sustainable forest management?

**ANR continuum:** Identify the network of AES scientists, non-AES scientists, UCCE Specialists, and/or UCCE Advisors that the advisor/specialist will be expected to collaborate with, and any existing projects with these collaborators that the advisor/specialist will be expected to contribute to early in their career. What are the generally acknowledged gaps in this network? Explain how, other than by simply providing another contributor, the position would significantly augment the capacity of this group.

Multiple opportunities exist for the advisor to strengthen and engage in the continuum. The UC Berkeley Center for Forestry serves as foci for forest related research and outreach. This Center is responsible for the management of the Berkeley forest properties, of which Blodgett Forest is one. The Center for Fire Research and Outreach at Berkeley is bringing together faculty, specialists and advisors to develop and disseminate science-based solutions to wildfire-related challenges. In addition to collaboration with research and outreach with these Centers, there is the potential for collaboration with faculty conducting work on forest insect pests, such as Penny Gullan, Rick Karban, and Peter Cranston at UCD, and forest pathology with faculty such as Dave Rizzo at UCD. Forestry Specialist Gary Nakamura provides opportunities for research and outreach collaboration in the areas of fire management, forest ecology, and watershed

management. Air quality collaborative opportunities exist with faculty associated with the Air Quality Research Center at UCD, as well as faculty at UCB, such as Allen Goldstein and Dennis Baldocchi. In addition, this position will provide a natural linkage with UCD's Tahoe Environmental Research Center as well as the University of Nevada Cooperative Extension educators and specialists. This tie to the University of Nevada system will lead to logical multi-state projects, such as the current effort addressing invasive terrestrial plant species.

**Support:** Outline the support for transportation, office space, administrative support, office supplies, computing, Internet access, telephone access, research costs, etc. that the position will be provided by the supporting unit(s).

The Central Sierra Nevada MCP can provide the operational budget (office supplies, travel, computer support, etc) necessary for a successful program. The advisor will be supported by a full time secretary dedicated to supporting natural resource programs (shared with another advisor), and a fiscal technician who provides support to all advisors in the MCP. The MCP will provide the travel support necessary to develop and conduct an effective CE program throughout the four county area. This position is strongly supported by an array of interests both in the four county region and in the Lake Tahoe Basin. Supporters include the California Tahoe Conservancy, the Natural Resource Conservation Service, US Forest Service, the UCD Tahoe Environmental Research Center, University of Nevada Cooperative Extension, the Lake Tahoe Regional Planning Agency, County Board of Supervisors, and Blodgett Forest.

**Other support:** Identify any other specific sources of funding that the person will be able (or expected) to rely upon to support the program.

**Location:** Explain why the proposed location is the logical base of operations for such a position.

This position will be headquartered in El Dorado County, the administrative headquarters for the Central Sierra Nevada MCP. Currently, the California Tahoe Conservancy provides office space and partial support for the current term Natural Resource advisor position in the Lake Tahoe Basin. This position has the distinct advantage that it also resides in the same county as the UC Berkeley Blodgett Forest Research Station, where the advisor can affiliate closely with other researchers. Blodgett Forest, recognized for being the leading facility for forest research in the West, provides the perfect opportunity for collaborative research and outreach with a wide array of faculty and specialists.