California Indian Environmental Alliance's Initial Concept Proposal

a. Date Submitted: May 18, 2026

b. Project Title: "Advancing Tribal Climate Resilience and Forest Stewardship"

c. Project # (leave blank; to be assigned by EMC)

d. Principal Investigator(s) (PI): California Indian Environmental Alliance (CIEA)

e. Affiliation(s) of PI(s) and Address(es):

Native-led non-profit
[redacted]

f. Applying Organization: California Indian Environmental Alliance

g. Primary Contact Phone Number(s): [redacted]

h. Primary Email Contact(s) of PI(s): [redacted] and [redacted]

i. Name(s) and Affiliation(s) of Collaborator(s):

Leaf Hillman (Karuk)- Tribal Agency Agreement Development)

Kathy McCovey (Karuk)- Traditional Forrester and Cultural Use Expert

j. Project Description:

i. Project Duration: 36 months, (2027-29)

1. Phase 1: Months 1-10- Tribal engagement, consensus building, strategic planning refinement
2. Phase 2: Months 11-21- Technical assistance, project development, workforce capacity building
3. Phase 3: Months 22-36- Outreach, education, regional coordination, and evaluation

ii. Background

California Tribal nations are disproportionately impacted by climate change, catastrophic wildfire, invasive species, drought, water mismanagement, and long-term land management practices that disrupted traditional ecological stewardship systems. Historical exclusion of Tribal land management practices, including cultural burning, watershed stewardship, and reciprocal management systems, has contributed to declining forest health, increased wildfire severity, biodiversity loss, and reduced climate resilience across Northern California landscapes.

Tribal communities possess generations of cultural and place-based stewardship practices that are increasingly recognized as essential for climate adaptation, wildfire resilience, and ecosystem restoration. However, many Tribes continue to face barriers to implementing climate resilience

strategies, including limited staffing capacity, insufficient technical assistance, underinvestment in Tribal workforce development, among others.

This project addresses those barriers and seeks to restore and advance Tribal traditional management systems, such as traditional burning, flooding for groundwater recharge and support of native species to rebalance regional ecosystems. These activities restore thousands of years of effective ecosystem management resulting in Tribally-led climate resilience, restoration of forest, meadows and aquatic ecosystems through regional collaborations, inter-Tribal planning working groups, trainings, technical assistance and resource sharing. The project is rooted in Tribal sovereignty by creating Tribal workforce development and supports the leadership of regional Tribes and their communities in partnership as expert as stewards of their own lands and resources.

CIEA maintains long-standing relationships with more than 80 Tribal nations and communities across California, particularly within the North Coast, Central Valley, and San Francisco Bay Area regions. All project activities are guided by California Tribal advisory committees, Tribal leadership, and knowledgeable Tribal community members to ensure that climate adaptation and nature-based solutions remain informed by Tribal knowledge systems and community-defined priorities.

The project also supports broader statewide goals related to wildfire risk reduction, forest health improvement, emergency preparedness, water resilience, biodiversity conservation, and equitable climate adaptation planning relevant to state, private and mixed-ownership landscapes.

iii. Objectives

How can Tribal Nations strengthen and expand culturally grounded land and aquatic stewardship, climate adaptation, and traditional fire practices on their own terms while increasing regional climate resilience, forest health, and collaborative management capacity across California?

The primary objectives of this project are to:

1. Strengthen Tribal-led climate resilience and forest stewardship planning through consensus-based Tribal engagement and Indigenous knowledge integration.

2. Expand Tribal workforce development opportunities in traditional and prescribed fire application with cultural goals, emergency preparedness, ecological restoration, GIS/ArcGIS applications, grants management, and climate resiliency planning.

3. Support collaborative governance and agreements between Tribes and agencies related to stewardship of traditional territories, forest management, water resilience, and cultural access.

4. Develop regionally informed climate adaptation frameworks and educational resources that integrate Traditional Ecological Knowledge with applied planning and data-informed strategies in areas related to watershed and fire shed resiliency.

The project includes Tribal engagement, collaborative inter-Tribal planning, technical assistance, workforce development, climate adaptation support, trainings (including those in setting water quality objectives, and application of cultural fire and prescribed fire), and regional species integration activities across Northern California. The project supports both planning-level and implementation-readiness activities related to wildfire resilience, forest health, watershed stewardship, biodiversity protection, and emergency preparedness.
iv. Research Methods

Phase 1 (Months 1-10): Tribal Engagement, Regional Focus Identification and Planning

- Facilitate Tribal meetings, focus groups with Tribal leadership, Tribal staff, and community members Surveys
- Review of existing Tribal climate adaptation and forest management plans
- Surveys and Synthesizing information, documentation of Tribal priorities regarding fire resilience, forest health, water stewardship, subsistence and cultural use and access, species resiliency and data governance
- workshops, and listening sessions.

Qualitative data from research, interviews, and community meetings will be analyzed to identify recurring themes, regional priorities, barriers to implementation, and opportunities for collaboration. Findings will inform adaptive landscape planning frameworks, regional coordination strategies, trainings to be offered, and technical assistance priorities.

Traditional Ecological Knowledge will be integrated through collaborative interpretation processes led by Tribal participants to ensure that data use, interpretation, and dissemination align with Tribal sovereignty and cultural protocols.

Deliverables will include; Tribal meeting summaries, planning recommendations, regional adaptation priorities, Tribal review and feedback documentation, and updated planning and data governance frameworks.

Phase 2 (Months 11–21): Technical Assistance and Capacity Building

- Capacity assessments and project readiness evaluation
- Technical assistance tracking
- Workforce participation records
- GIS and landscape planning analyses
- Documentation of trainings provided and Tribal whose staff or members participated
- Documentation of prescribed and cultural fire activities
- Monitoring of acres treated or prepared for treatment
- Consultant reports and project development documentation

Project readiness assessments will evaluate Tribal capacity needs related to staffing, funding access, permitting, restoration planning, wildfire preparedness, Tribal water quality objectives to

be integrated in watershed management, and implementation readiness. Quantitative metrics such as workforce participation, training completion, impaired waters, project advancement, and acreage treated will be analyzed to measure increases in Tribal capacity and resilience outcomes.

Spatial analyses using ArcGIS and landscape-level planning tools will support identification of priority treatment areas, wildfire risk reduction opportunities, species special distribution, and needs for contiguous land-management and ecosystem restoration needs. Findings will be interpreted collaboratively with Tribal advisors and technical experts to ensure consistency with Tribal community usage interests, Tribal historical uses of regional lands and waters and future stewardship priorities.

Deliverables will include; agendas, training pre and post surveys, technical assistance reports, records of workforce development outcomes, initial training participation metrics, GIS-based planning products, project documentation, and summaries of landscape type with acres treated/prepared for treatment.

Phase 3 (Months 22–36): Outreach and Regional Coordination

- Outreach participation records
- Community feedback surveys and Workshop evaluations
- Documentation of regional coordination activities and partnership development
- Story maps, educational materials, study development and regional workplan outlines or full workplans with prior permission by the Tribe(s)

Evaluation data will be analyzed to assess effectiveness of outreach, collaboration strategies, workforce training efforts, and community engagement approaches. Lessons learned will be synthesized to identify best practices for Tribal-led climate adaptation and watershed and landscape stewardship initiatives.

Findings will support refinement of equity and engagement strategies and strengthen long-term regional coordination between Tribal Nations, agencies, and community partners.

Deliverables will include; educational and outreach materials, story maps and presentations, regional coordination summaries, documentation of Tribal burn network, final project evaluation and lessons learned report.

v. Geographic Application and Scientific Uncertainty

The project primarily benefits Tribal communities and forested landscapes within:

- North Coast California
- Central Valley California
- San Francisco Bay Area regions

Specific counties may include:

- Humboldt
- Del Norte
- Mendocino
- Sonoma
- Lake

- Napa
- Marin
- Trinity
- Siskiyou
- Shasta
- Tehama
- Mendocino
- Yolo
- Solano
- Alameda
- Contra Costa
- San Francisco
- Santa Clara
- Monterey
- Work with Southern California partners for species and statewide management planning

Because the project develops transferable planning frameworks, Tribal workforce capacity, prescribed fire expertise, and climate adaptation strategies relevant to mixed-ownership forests and private timberlands, benefits are anticipated to extend across California and potentially inform Tribal climate resilience initiatives throughout the western United States.
Research findings and planning frameworks may also support broader regional applications related to wildfire resilience, forest stewardship, and Indigenous-led adaptation strategies beyond subregions of California and adjacent states.

Climate adaptation and wildfire resilience planning involve uncertainty related to changing climate conditions, wildfire behavior, drought severity, invasive species spread, ecosystem response, and long-term funding availability. Additional uncertainty exists regarding the pace of policy and regulatory changes affecting Tribal co-management and cultural burning implementation.

This project addresses uncertainty through adaptive management, iterative Tribal consultation and development of regional agreements with local and state agencies, community-based planning, and integration of Traditional Ecological Knowledge with applied scientific and spatial planning approaches. The project emphasizes flexible, locally informed strategies that can evolve in response to changing environmental and community conditions.

vi. Collaborations and Project Feasibility

CIEA has established trusted partnerships with more than 80 Tribal Nations and communities across California and extensive experience coordinating Tribal engagement, technical assistance, climate adaptation planning, and workforce development programs.

Project governance is guided by:

- California Tribal advisory committees
- Tribal leadership and staff

- Indigenous community members
- CIEA Board members who are California Tribal citizens, advocates, and cultural practitioners

The project includes collaboration with Tribal Nations, community-based organizations, technical consultants, prescribed fire practitioners, regional agencies, and climate resilience partners. Existing relationships and established regional coordination structures significantly increase project feasibility and implementation readiness.

CIEA currently serves as the Tribal outreach, engagement, and technical assistance staff within the NCRP framework supporting North Coast Tribes to restore Tribal fire management and plan for climate resiliency, is a member of a coalition of Central Valley Tribes seeking to restore watershed health for cultural and subsistence uses, and is leading a state-wide Tribal cultural and subsistence water quality objectives strategic planning caucus. Existing program infrastructure, technical expertise, and community partnerships position the organization to successfully implement project activities within the proposed timeline. Together programs such as fire training, GIS and mapping workshops, etc. encompass a full-range of wholistic Tribal management needs.

The project's phased structure, consensus-based existing governance model, and emphasis on trainings community and inter-regional planning with support Tribal leadership ensure strong community participation, accountability, and long-term sustainability beyond the grant period.
k. Critical Question Theme and Forest Practice Rules or Regulations Addressed.

The proposed project aligns with multiple EMC Research Themes and Critical Monitoring Questions, particularly Themes 1, 5, 6, 7, 9, and 12. The project evaluates the effectiveness of California Forest Practice Rules and associated regulations by examining how Tribal-led stewardship, cultural fire, forest resilience planning, watershed protection, and climate adaptation strategies improve ecological function, wildfire resilience, and long-term resource protection across Northern California landscapes. Each of the following contains elements of documentation of previous historical status, Tribal use and activities, species needing reintroduction to increase self-management, Tribal strategic planning for which activities to focus on and how these connects to wider aquatic and land management; trainings on what is known about each strategy and how to best apply it; and collaboration with local, state and federal partners to develop management agreements to apply the strategy.

<u>Theme 1: 1a-1h Water course and lake protection zone</u>
The project addresses the effectiveness of WLPZ protections through Tribally-led watershed management strategic planning documentation including recognition of restoration of riparian zones with reduction of invasive species, increase of traditional species distribution, and water resiliency strategies stewardship reduce wildfire severity considering fire-shed and riparian corridors while maintaining ecological and cultural functions. The project supports watershed and interregional wider-scale management to support the interface between riparian zones, groundwater recharge, species resiliency, water quality and quantity and reduction of these zones in wildfire capacity, and an increase of precipitation through support atmospheric connectivity with riparian zones and surface water. Tribal stewardship practices applied where water quality support those uses safely, provides cultural materials and subsistence foods for Tribal

communities and also is part of strengthened riparian zone health. This project will map areas of potential restoration for multi-benefit uses and to provide the area balanced to become a functioning fuel break.

Theme 5: 5a Fish habitat

The project will develop recommendations and workplans for the interface between subregional watersheds to support resiliency as creeks and rivers shift due to impairments and shifts in climate while remediation and restoration to restore water quality and quantity can be resumed. This is necessary to affect the cycle of loss of habitat to establish escape and fish and aquatic species resiliency. Early portion of work for this theme examine the reintroduction of Tribally-led forest stewardship for cooling and alternative adjacent regions to allow for rest and flexibility of use where one reach or stream requires action. Considerations include but are not limited to riparian zones, reintroduction or retainment of large woody debris, wetland restoration, and/or distribution traditional species and Tribal traditional activities which are in essence climate resiliency strategies. This strategy developed with Tribes from each region will increase resilience to drought, extreme wildfire behavior, reduction of invasive species, reintroduce and support the distribution of traditional species.

Theme 6: 6c-6f Wildfire hazards and decrease of invasive species

The project evaluates the increase of fuel loading of highly flammable species that block mosaics of multi-type fuel break zones. Removal of invasive species and cycles of Tribal cultural burning and prescribed fire have the effect over time of removing the regrowth of these invasive species and fuel loading areas. Findings will include potential treatment areas with project readiness metrics.

Theme 7: 7a-b Wildlife Habitat: Habitat species and nest sites

This portion of the project includes collaborations between Tribes and environmental non-governmental organizations to evaluate needed contiguous landscapes with a mosaic of differing fire-resilient landscape types to support species migratory patterns and necessary shifts due to climate pressures. Potential Operational Delineations (PODs) have been in development to identify predefined fuel barriers for management strategies. This project seeks to support Tribal ground-truthing of these PODs and with additional mapping layers, overlay to evaluate land-scape climate corridors for species movement. This task includes providing mapping in collaboration between two UC Berkeley instructors and a specialization in climate and species movement.

Theme 9: 9a-9c Wildlife habitat: Cumulative Impacts

In addition to Theam 8, this project combines impacts of water quality and quantity, existence or need for restoration of riparian zones and wetlands, identified and reviewed PODs, reintroduction of native species, removal of invasive species, return of Tribal traditional activities to identify a comprehensive evaluation and Tribally-developed recommendations for more balanced management. These will consider current and expected impairments, regional ecosystem and beneficial use objectives/metrics to provide policy recommendations to share within multiple agencies regional plan updates.

Theme 12: 12a-12d Climate and Wildfire Resilience

This project will increase Tribal training in fuel reduction planning, and application of burning as a forest health treatment, and courses in creating vulnerability assessments and climate plans to prepare for changes in climate including areas of more and less precipitation effecting fuel loading and atmospheric drying power, heat stress oscillating between the opposite, the increase of precipitation resulting in increased vegetation and subsequent drying and higher fuel loads. To address over 100 years of fire repression and the increase of fuel loading that is expected a local workforce is needed including a combination of trained Tribal fire practitioners to put good fire on the ground and those who can respond to unplanned fire expected due to overloading and need for a cyclical fire treatment plan where areas reburned by traditional or prescribed fire. Activities in this project includes course spanning from Basic 32 fire training (includes 4 trainings led by Torchbearr and 4 cultural burning workshops led by Tribal experts) to emergency preparedness and response. The project also evaluates how community-led planning and implementation improve effectiveness of fuel reduction and climate resiliency outcomes.

Evaluation of Regulation Effectiveness

This project contributes to EMC objectives by assessing whether current Forest Practice Rules and associated regulations effectively support:

- wildfire resilience,
- watershed protection,
- climate adaptation,
- Tribal stewardship,
- cumulative impact reduction,
- species resiliency
- and long-term forest ecosystem health.

The project specifically evaluates how Tribal-led stewardship approaches may improve implementation outcomes where existing regulations and activities have not adequately addressed climate-driven wildfire risk, watershed degradation, species distribution, cultural resource and subsistence food access, and regional resilience challenges. Findings will support adaptive management recommendations relevant to private timberlands, Tribal lands, local and state lands, and mixed-ownership forest landscapes throughout California.

l. Requested Funding.

Fiscal Year	**Amount Requested**
FY 2026–2027 (July 1, 2026 – June 30, 2027)	$370,000.00
FY 2027–2028 (July 1, 2027 – June 30, 2028)	$370,000.00
FY 2028–2029 (July 1, 2028 – June 30, 2029)	$370,000.00
Total Funds Requested	$1,110,000.00

Funding will support a 36-months of Tribally-led climate resilience planning including forest stewardship, fire adaptation initiatives and species resiliency planning, which will serve 54 Tribal Nations across Northern California. Project costs include personnel, Tribal technical assistance

contractors, workforce development trainings and field experience, Tribal engagement focus groups for strategic planning, cultural and prescribed fire trainings, regional and inter-regional coordination, mapping and overlay of data, travel support, meeting expenses, outreach, and administrative oversight.

Personnel and contractual costs support project management, Tribal consultation, technical assistance delivery, Traditional Ecological Knowledge (TEK)-informed planning, mapping training with focus on fire fuel loads evaluation, landscape types, recommendations for mosaic of fuel breaks also including PODs review and refinement, Tribal-agency agreement development, GIS and climate adaptation support, and experts to provide trainings. Travel funds support equitable participation of Tribal representatives from rural and geographically dispersed communities through mileage reimbursement, lodging for participation in regional trainings and convenings. Supplies and facility costs support workshops, outreach materials, hybrid engagement platforms, and meeting logistics.

Indirect costs support fiscal management, reporting, compliance, and organizational infrastructure necessary for implementation. The project advances wildfire resilience, climate adaptation planning, watershed stewardship, Tribal workforce capacity, and collaborative land management strategies relevant to private timberlands, agency lands, multiple jurisdiction structures of tribal lands, and mixed-ownership forest landscapes throughout California.