Success Stories from the Western Region

Karuk Tribe - Bringing Fire to the People

Building Diverse Local Capacity for Integrated Fire Management

The Karuk Tribe is a federally recognized tribe claiming jurisdiction over 1.48 million acres of Aboriginal Territory in Northern California and Southern Oregon, including the Klamath and Six Rivers National Forests. The area is remote and frontier (less than four people per square mile) with unreliable communication and utility infrastructure. The Karuk believe the center of the world is “Katimiin” in northwestern California, where the Salmon and Klamath rivers converge. An upriver people, the Karuk identity with the Klamath and the many steep, rugged, and remote watersheds that feed it.

Fire is of great importance to the Karuk people. Burning is an important part of Tribal culture, and is equal to the river in its importance in traditional life and sacred ceremonies. In the early 1990s the Tribe became increasingly alarmed at the deteriorating condition of the forests and watersheds resulting from past non-Tribal uses and management. In response, the Tribe and its Department of Natural Resources began discussions with non-Tribal community members and several federal agencies around the issues of fire, fish, and other aspects of the Department’s mission.

The Tribe began by introducing local people into the Karuk vision of cultural management, and has been pleased with the new capacity for integrated fire management that has been created over the past several years. To achieve that result, the Tribe employed a variety of interactive processes − consensus, informed consent, stipulated consent, reserved consent, and complete opposition – with their use depending upon the particular issues and circumstances that existed at a particular time. As a result of their efforts, Tribal and non-Tribal communities now are trained in fuels management techniques, fire response and prescribed fire. The U. S. Forest Service (USFS) is using cultural knowledge in its planning processes and integrating cultural practices into its planned activities. Fire is coming back to the forest and the people.

Mission Statement: The mission of the Karuk Department of Natural Resources is to protect, promote, and preserve the cultural/natural resources and ecological processes upon which the Karuk People depends. Natural Resources staff work in conjunction with agency personnel to ensure that the integrity of natural ecosystem processes and traditional values are incorporated into current and future management strategies within our area of influence.

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Representative activities and accomplishments

The Land and Resource Management Plan (LRMP) of the Klamath National Forest now identifies Management Area 8 lands as “Cultural Management Areas” (CMAs), traditional ceremonial areas averaging about 11,400 acres each. The LRMP states that these areas are to be managed “in a manner consistent with Karuk customs and culture.”

The Ti-Bar Demonstration Project was jointly planned for culturally appropriate prescribed burning, and included an ID team co-led by the Tribe and the USFS. Four projects were selected for large-scale fuels reduction prior to the use of prescribed fire. Nearly 200 acres of contiguous Tan Oak stands and a 30-years-old plantation were prepared for burning through hand treatment and pile burning. Following treatment, a Spotted Owl was seen foraging in the open understory of the plantation, leading to an additional 300 acres in the Katimiin CMA being prepared for revitalization of ceremonial burning practices. (One flank of this treatment was effectively used in the control of wildfires 10 years later.) These projects were among the first to document the need for increasing initial per-acre treatment funding, usually in the neighborhood of $1,200. Many more projects of this type have since been implemented through other planning processes and partnerships.

Figure 1. Sand Dollar Plantation Thinning Project three years after treatment. Project completed under non-local private contract using agency best management practices. Stand is less resilient to fire, even under favorable burning conditions. Stand has remained in this state for nearly a decade. Photo by Bill Tripp

Development of formal agreements between or among the Tribe, Bureau of Indian Affairs (BIA), and USFS has been accomplished through a variety of procedural mechanisms, such as:

- an MOU to establish a protocol for government-to-government consultation within the Karuk Aboriginal Territory;
- an Interagency Agreement between the BIA and the USFS on behalf of the Karuk Tribe for Tribal implementation of fuels projects within the National Forest System;
- an MOU with the USFS for an administratively-determined (AD) hire of a Tribal representative and heritage consultants to work with Incident Command teams during wildfire events in and adjacent to the Aboriginal Territory;
- a Co-operative Agreement with the BIA for reimbursement of wildland fire management actions and activities under the Federal Grant and Cooperative Agreement Act;
- an Emergency Equipment Rental Agreement (EERA) to make two five-person chipper modules available during fire emergencies;
- the California Master Cooperative Wildland Fire Management and Stafford Act Response Agreement to have a 20-person Type II IA hand crew available for fuels projects and emergency response; and
- development of the Karuk Environmental Management Practices Demonstration Area concept paper, which states: “This commitment by the Forest Service and the Karuk Tribe extends beyond our standard governmental relationships to one of a dynamic interactive partnership that seeks to meet cultural, spiritual, and environmental needs of the Karuk and other local communities by utilizing traditional ecological knowledge as a base for decision-making in the Karuk Environmental Management Practices Demonstration Area.” (KEMPDA 2005)

Capacity building has included such diverse efforts as:

- providing skill training and certification for local residents (e.g., cooperative training of 60+ Tribal and non-tribal individuals for "red card" firefighter certification, preparation of 40+ Tribal individuals for certification as cultural resource surveyors, and training of private contractors for certification under Cal-Fire standards);
- recruiting universities and local non-government organizations (NGOs) to help with relevant case studies, research, monitoring, planning, implementation, coordination, and iterative learning;
- fostering Tribal and non-Tribal relationships (e.g., helping develop the missions and guide the actions and activities of new local NGOs and community forums such as the Mid-Klamath Watershed Council, Salmon River Restoration Council, and community Fire Safe councils organizing to address fire, fisheries, and/or watershed restoration issues).

Planning activities have included, among others:

- participation in development of numerous NEPA documents (Tribal Module for the Mainstem Salmon Watershed Analysis, Ti-Bar Demonstration Project, Offield Mountain Ceremonial Burn Project, etc.)
- development of the Mid Klamath Fisheries Recovery Plan, which brought upslope fuels management considerations into fisheries restoration efforts.
- assisting in preparation of three Community Wildfire Protection Plans (CWPPs) for area communities;
- drafting of an Eco-Cultural Resource Management Plan under the National Indian Forest Resources Management Act in partnership with the BIA, USFS Pacific Southwest Research Station, and UC Berkeley; and
- participation in development of the National Cohesive Wildland Fire Management Strategy through membership on the West Regional Strategy Committee's Work Group and its technical and communications teams.

Averting appeals of projects is almost always desirable. The Tribe collaborates with environmental groups in project planning to help find the middle ground on contentious issues and avoid appeals and/or litigation. The focus of this work is to engage environmental interests positively in multi-party monitoring, encouraging meaningful interactive learning, and facilitating the use of the principles of adaptive co-management. Averting an appeal, however, is not necessarily the culmination of the Tribe's effort. In the Orleans Community Fuels Reduction (OCFR) project, for instance, an appeal was avoided, but later a lawsuit was filed by the Tribe in partnership with the OCFR Collaborative group when violations of the National Historic Preservation Act occurred after project implementation began. The result was a court-ordered remedial plan to implement protection measures and establish and maintain communications protocols to ensure no additional adverse effects to cultural resources or traditional cultural properties occurred.

Mobilizing and using diverse resources is an on-going and important part of the work of the Tribe's Department of Natural Resources. The Karuk have developed an extensive network of supporters, partners, advisors, technical experts, funders, and others. In addition to the agencies and organizations already mentioned, the Tribe has worked with the Yurok Tribe, Hoopa Tribe, Inter-Tribal Timber Council, California Indian Forest and Fire Management Council, California Indian Basketweavers Association, Indigenous Peoples Restoration Network, Cal-Trans, Humboldt County, Western Regional Air Partnership, University of California-Davis, Humboldt State University, Whitman College, U. S. Fish and Wildlife Service, NOAA Fisheries, Bureau of Reclamation, Environmental Protection Agency, Mid-Klamath Watershed Council, Salmon River Restoration Council, Orleans/Somes Bar Fire Safe Council (FSC), Salmon River FSC, Happy Camp FSC, Pacificorp, the Watershed Research and Training Center, Lomakatsi Restoration Project, California Klamath Siskiyou Fire Learning Network, Northern California Prescribed Fire Council, California Fire Sciences Consortium, National Fish and Wildlife Foundation, Ford Foundation, The Nature Conservancy, and others.

Restore and maintain landscapes.

Through forest thinning, prescribed fire, and the use of Karuk cultural environmental management practices, the Tribe is enhancing, restoring, and maintaining the resiliency of historical plant and animal communities and other forest conditions in the face of fire, invasive species, and other disturbances. The Tribe has completed demonstrations of cultural management on several USFS, Tribal, and private sites. Through Watershed Education Programs in local schools, progress has been made in ensuring the continued use of the practices and principles associated with culturally consistent treatments. The Tribe enacted a resolution opposing the use of herbicides and pesticides within or potentially affecting its Territory, and instead promotes fire as the primary means of vegetation and insect management.

Figure 5. Crown fire initiation on the Somes Fire (2006). Fire controlled prior to season-ending event. Progressive thinking ICTs reluctantly followed Tribal representatives' recommendations on management strategies along the South and East flanks. Six Tribal and non-Tribal community members took it upon themselves to snag and hold lower Butler Creek, and a single hotshot crew led by a Karuk Tribal member gained control of the upper drainage to avoid ignition of a large-scale burnout with a low probability of success. Photo by Ramona Taylor

Fire-adapted communities.

Adaptation to wildfire is being achieved through continuing efforts to raise public awareness of historic fire behavior, current forest conditions, and the desired dynamics of forest, fire, and human community interactions. CWPP implementation and Firewise Community planning are also ongoing.

Training for contractors and other Tribal members has resulted in development of a diverse local workforce and has increased Tribal capacity to implement prescribed fire and eventually mobilize scalable community based Type III ICTs to enact point protection response. The Tribe has a formal agreement with the USFS for a tribal liaison to work with USFS fire teams to ensure the protection of cultural values during fire events.

With funding from United Indian Health Services, the Tribe upgraded three municipal water systems to increase capacity and supply tribal housing developments. The Karuk Tribe's Department of Natural Resources meets monthly with the three concerned USFS management units to coordinate projects and share information.

Figure 2. Katimiin Plantation Thinning Project before treatment. Note the abundance of contiguous ground and ladder fuels. In this condition, plantations have low resiliance to fire effects. Photo by Bill Tripp

Figure 3. Katimiin Thinning Project three years after Tribal partial prescription treatment. Note the reduced fuel loading and minimal re-sprout. There's enough shade at ground level to reduce brush growth, yet enough light at canopy to maintain shade- intolerant species. Stand is resilient to disturbance, and the stage is set to monitor plant and animal response to enable appropriate prescription development for next entry. Photo by Bill Tripp

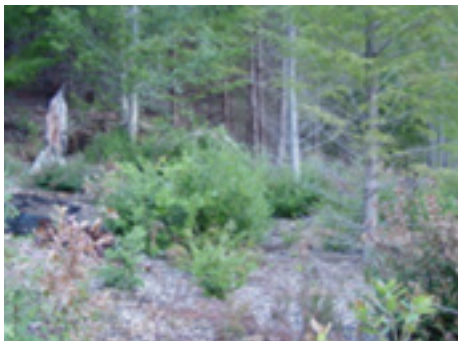

Figure 4. Katimiin Thinning Project 3 years after treatment to full prescription by local contractor (who went bankrupt from this project). Note prolific re-sprout response. Short term resilience achieved. This area is once again a wall of brush. Photo by Bill Tripp.

Wildfire response.

The Tribes and communities of the mid-Klamath area are building a local workforce capacity for providing safe, effective response to wildfire. The Karuk Tribe has a long-standing MOU with the USFS to engage designated Tribal government representatives to work with ICTs in wildfire event management in order to protect heritage resources.

In 2008 the MOU was extended to include the Hoopa and Yurok Tribes. The Karuk began building their training capacities in 1991, first obtaining seasonal or emergency employment for Tribal members with local USFS units, then progressing to cooperative training with the USFS and the Hoopa Tribe. Later, vehicles and equipment were purchased, making it possible for a Karuk crew to be organized. By 2008, the crew was able to split into three squads and meet the final requirement for Type II IA status. Currently the Tribe has its own qualified trainers, but still has no paid leadership or support positions. The next step will be creation of a training specialist position.

In terms of large fire cost containment, the Tribe has focused on capacity building. The belief is that, in remote areas, having Tribal and other local capacity such as engines, chipper modules, Type 1 and II crews, cooperative Type III ICT's, point protection modules, etc. that can respond directly to emergency assignments from existing projects or leadership positions will create a more affordable and scalable response framework. Maintaining that capacity should create long-term employment in fuels reduction, prescribed fire, planning, and other integrated wildland fire management actions and activities.

Figure 6. Wooley Fire (2005). Karuk Tribe had a representative on this test run of the Wildland Fire Use Team ICT organization. This fire had the lowest cost per acre in the nation for the entire fire season. This is a close example of how diverse local Type III ICT capacities could manage wanted fire at a further reduction in cost while maintaining progress on other programmatic actions and activities through the fire season. Photo by Bill Tripp

Figure 7. Geary Fire (2005). This fire had one of the highest costs per acre in the nation for the fire season. West flank prepped for burnout, trigger point never reached, fire controlled at natural barrier. Activity fuels unmanageable in slop over of 2008 fires. Re-growth will now be 30 years behind adjacent vegetation increasing complexity and cost of restoring resiliency along this potential control feature. Photo by Corrine Black

Figure 8. Geary Fire (2005). 200 yards of east flank prepped with Tribal Representative guidance for blackline burnout, flame lengths of 1-2 feet along control feature. Oak overstory remaining. Stage now set for establishment of age class diversity and reduced costs for restoration and maintenance of resiliency. Appropriate pre-treatment and local management could have made this one of the lowest cost per acre responses for the fire season. Photo by Corrine Black

Going forward – issues and opportunities

Initial demonstration projects have been successful, and are showing the benefits of cultural management. There is optimism that valuable lessons have been learned both from the barriers encountered and from the modest successes achieved. Through effective intergovernmental coordination and community engagement, and integrated programmatic activities, the lessons learned from larger managerial successes and failures can inform and guide the necessary operational adaptations.

The Tribe is currently searching for a means (such as Master Tribal Stewardship Agreements, MOUs, intergovernmental compacts, programmatic support, government-to-government agreements, or legislative demonstration landscapes) to institutionalize and expand upon the positive outcomes achieved so far. Traditional Ecological Knowledge (TEK) as a basis for decision-making is widely supported, but still not incorporated into regular agency practice.

The Karuk recognize and hope to be able to overcome the obstacles inherent in working with federal agencies which have frequent changes in key personnel, inflexible contracting procedures, an inability to take into account the value of local knowledge, and even, in some cases, the inability to hire local personnel. Meanwhile, the Tribe struggles to maintain its own program staff in order to be a strong partner while working to be recognized as an integral jurisdiction − one that leads in the journey to reconnect humans to ecological processes in the interest of revitalizing balance within dynamic functions.

At times agency rules or administrative guidance may directly hinder that reconnection. In 2009, for instance, the Tribe proposed the reigniting of the suppressed Backbone fire within the fire return interval to reduce the fuel load left from the 1999 Megram fire. The Forest Service, however, maintained that it had no authority to authorize such action, and proposed to address the excess load at a future time with prescribed fire. Scientific studies and TEK both show that after nine years the negative consequences of fire begin to increase quickly, depending upon the time remaining before the next return interval. The Tribe believes that response to such disturbances must include sideboards for immediate action under standard operating procedures, not only in cases of emergency.

So far the Tribe has implemented whatever activities appeared feasible at a particular time, but has found that many of the personnel it has trained to federal standards are not activated enough in a year even to be able to enter an unemployment claim. Additional authorities are likely in need of development, such as the ability to enter into self-governance compacts with other federal programs.

Funding is a perennial problem. For example, the Tribe has had no success in finding the money to acquire a coordinated GIS overlay assessment for a demonstration landscape to enable more accurate and informed identification of priority treatment areas and activities so that limited funding resources and the activities of multiple organizations can be organized into a cohesive, coordinated process of planning, implementation, and response both pre- and post-fire.

The greatest opportunity for progress lies in ensuring the continuity of the leadership and participation of the people of place, both Tribal and non-Tribal. Moreover, it is essential that there be a common understanding among all participants that they are components of the ecosystem, not an “outside” influence. Their part of the process is to do on the land what needs to be done to keep a balance between beneficial effects and negative consequences resulting from their actions and their interactions with each other. As one Tribal member explained, “It’s less about controlling fire, and more about guiding balance in disturbance to enhance its associated purpose.”