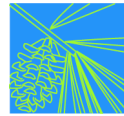


Against the Odds:  
(Re-) Building Community  
through Forestry on the Hoopa  
Reservation



Mark Baker

February 2003



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Pacific West Community Forestry Center

Forest Community Research

# Against the Odds: (Re-)Building Community Through

## Forestry on the Hoopa Reservation

**Mark Baker**

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### Summary

For Millennia the Hupa people have inhabited the “12 mile square” that today is the Hoopa Reservation. This land, an hour inland from the Pacific Ocean in Northwestern California, is a mix of forested mountains and river bottoms that bear the scars of destructive Anglo timber harvest and other resource extractive activities. The first wave of Anglo miners arrived in the mid-19<sup>th</sup> Century, followed by soldiers, more miners, and, later, bureaucrats who tried to subjugate, forcibly assimilate, or kill the Hupa people. In the early years, the Hupa were spared the destruction that nearby tribes suffered as a result of being off the main mining supply trails, utilizing the protection of the densely forested Hoopa Valley, and benefiting from the rumors of their fighting prowess. By the late 1800s, the Hupas, having secured the right—however tenuous—to remain in the valley, shifted the battle for survival to a battle with the U.S. Government for the survival of their culture and identity. The Tribe faced efforts by the federal government to forcibly remove Hupa children from their homes and the reservation and to ban displays of Hupa culture, among other acts. The Hupa continued to struggle for self-determination and autonomy throughout the 20<sup>th</sup> Century finally achieving clarity regarding their reservation and rights to the benefit of their resource stewardship with the passage of the 1988 Hoopa-Yurok Settlement Act, which followed a legal battle begun in 1963.

It is against this backdrop that the Hupa people are advancing management of the forest as a way of rebuilding community. The Hoopa Tribe views enhancement of the forest ecosystem and enhancing human community health as interdependent goals. The forest landscape is treated as both an ecological landscape and a cultural landscape. This review of the Hoopa experience highlights projects associated with the Northwest Economic Adjustment Initiative, the socioeconomic side of the Clinton Administration’s Northwest Forest Plan, that are part of the Hoopa Tribe’s effort to jointly address community health and the destructive forest ecosystem practices of the last 150 years. On the ecosystem side, the erosion from roads and forest management of the past have received particular attention because of the effect sediment has had on salmon habitat. Salmon is important culturally and is a staple of the Hupa diet. Yet, the Hupa people remain seriously challenged to advance both community and forest health in light of, among other social maladies, high poverty and unemployment levels that plague the reservation. And resonant with the long history of U.S. Government hegemony and destructive Anglo forest practices, the effectiveness of Hupa erosion control on salmon habitat may be fatally compromised if upstream water diversions from both the Trinity and Klamath Rivers for hydroelectric power and for farmers and ranchers continue the massive salmon kills like that which took place in 2002. If history is any guide, the Hupa people will persevere, and their success will build on the communities’ strong ties to the forest.

## **Introduction**

This case study explores the relationship between community well-being and the forest ecosystem on the Hoopa Valley Indian Reservation in northwestern California. The relationship that connects the Hupa people<sup>1</sup> and the forest resources that surround them is multi-dimensional, enduring, and culturally rooted. It is also dynamic. It was developed and nurtured during the millennia-long period prior to contact with Anglo miners and settlers in the mid-nineteenth century. After contact with Anglos, it played an important role in enabling the Hupa people to repel the ensuing attempts to forcibly remove them from their valley or outright exterminate them. Subsequent efforts by the Hupa to achieve political autonomy and self-determination during the late nineteenth and early twentieth centuries included efforts to control, manage and use the natural resources on the reservation, particularly those related to the forest ecosystem and fisheries. Although the multi-dimensional relationship between forest health and community well-being narrowed somewhat for several decades after WW II, it has developed a renewed salience, especially since 1991 when the Tribe assumed full authority from the Bureau of Indian Affairs for managing all aspects of its forest management program.

This case study explores the complex and changing nature of this relationship in a chronological fashion. After a brief description of the Hoopa Valley Indian Reservation's size, location, and current population, there follows a summary description of the multi-faceted and mutually supporting relationship between the Hupa people and the forest ecosystem they stewarded and depended on during the pre-contact era. This leads to a longer discussion of the nature of the interaction between the Hupa people and the sets of waves of Anglo miners, settlers, soldiers, and bureaucrats who tried to kill, displace, subjugate, or forcibly assimilate the Hupa people. Reviewing this history illuminates the central role that forests played in supporting Hupa struggles for political autonomy and cultural continuity. It also helps to identify the linkages between tribal self-determination and the control and use of the tribe's natural resources, and it reveals some of the myriad ways in which Hupa cultural identity and community is embedded within the local forest landscape.

The focus of the case study shifts from late nineteenth and early twentieth century issues concerning the role of forests and natural resources in the struggle for autonomy and self-determination, to examine the nature of the community-forest relationship during the latter half of the twentieth century. Although still linked with continuing efforts to strengthen tribal sovereignty and control over the reservation's natural resources, the nature of the community-forest relationship goes through transformations. No longer needed as a safe haven for protection against marauding outsiders, the dense old growth forests on the reservation became valuable sources of revenue for the tribe, and disposition of forest revenues a source of conflict between the Hupa and adjacent Yurok people. During this period the Bureau of Indian Affairs played a dominant role in managing the forest resources on the "Hoopa Square." Finally, soon after federal legislation in 1988 rendered a decision on the Hupa-Yurok conflict, the Hoopa Valley Indian Tribe assumed the kind of authority for managing the reservation's forest resources that the Hupa people had not had since the initial Anglo incursions of the mid-nineteenth century. Obviously, a lot had changed in the meantime. The assumption of full management authority over the tribe's forest resources in 1991 has provided nearly unprecedented opportunities for revitalizing the community-forest relationship on the reservation

and reintegrating that relationship into the formal processes of forest ecosystem planning and management.

One window into the nature of this contemporary revitalization and reintegration is provided by the Northwest Economic Adjustment Initiative and in particular, the types of projects and activities it supported on the reservation. The Northwest Economic Adjustment Initiative was a multi-agency federal program to help rural forest-dependent communities in the Pacific Northwest respond to the changes in federal forest management, most notably the reduction in harvests associated with the 1993 Northwest Forest Plan. The Initiative sought to help rural communities diversify their local economic base, build community capacity, improve community well-being largely through grants and loans for infrastructure, and prepare workers (especially displaced timber workers) for anticipated ecosystem management-related jobs. Approximately \$1.2 billion had been spent for this purpose in communities and rural areas in Washington, Oregon, and northern California. An examination of some of the Northwest Economic Adjustment Initiative-supported projects at Hoopa provides insight into the multifaceted aspects of the current and emerging relationship between community well-being and the forest ecosystem on the reservation.

The case study concludes by exploring the question of whether or not a positive and mutually beneficial community-forest relationship, as is currently being supported and strengthened by the Hoopa Tribe, is necessary and sufficient for sustaining community well-being. Persistent poverty and high levels of un- and underemployment on the reservation suggest that it is not. Furthermore, while at the local level a richly textured and culturally informed forest management regime has been adopted by the Tribe, economic growth, particularly in the private sector continues to stagnate and non-local forces threaten to undermine the tribe's autonomy and resource base. Perhaps the most dramatic examples of the latter are the upstream water diversions in both the Trinity and Klamath Riverbasins for irrigation and power generation purposes, and the continuing legal battles over them. For years downstream Native American groups and coastal communities dependent on commercial and sport fishing have suffered as a result of these diversions. The recent unprecedented number of salmon kills (more than 30,000 Chinook but also including steelhead and Endangered Species Act-listed Coho) on the Klamath River are only the most recent sign of the ill-health of the overall watershed and the unequal distribution of benefits and costs of its management. While the Hoopa Tribe is supporting positive community-forest relations on reservation, off-reservation political processes, institutional structures, and resource management agencies continue to undermine efforts to advance community forestry and sustainable development of the reservation economy.

## ***Background***

The Hoopa Valley Indian Reservation is comprised of the "Hoopa Square," a block 12 miles by 12 miles that contains 87,000 acres of land, of which approximately 75,000 acres are commercial timberland. The Hoopa Square is located in the northeast corner of Humboldt County, in northwest California. The square is bisected in a north-south fashion by both the Trinity River and State Highway 96. The nearest moderately large towns are Eureka and Arcata, approximately an hour drive from Hoopa west on State Highway 299. Redding, a much larger commercial center at the north end of California's Central Valley, is about two and a quarter hours from Hoopa east on State Highway 299. Other than the valley formed by the Trinity River floodplain, the reservation is comprised of the relatively steep but highly productive forested

slopes of the interior coast range. Almost all of the residences on the reservation are located on the valley floor.

There are 2,162 enrolled members in the Hoopa Valley Tribe. Approximately 1,500 tribal members live on the Hoopa Valley Reservation, whose total population is 2,633 (Census 2000). Of the total reservation population, 2,230 or 84.7 percent are American Indian. Non-tribal reservation residents are Yurok and Karuk Tribal members, members of other tribes, non-tribal member Native Americans and non-Indians. There are 403 non-Indian reservation residents.

### People-forest relations and their role in enabling Hupa to resist violent incursions

The residents of Hoopa Valley, known as Hupa after the Yurok word for their territory, have inhabited the Hoopa Valley for thousands of years. A dense web of complex and multi-layered relations linking the Hupa people with the forest have evolved over time. Other than the redwood dugout canoes that were obtained through trade with the downstream Yurok people, and the salmon harvested from the Trinity River, it is hard to think of any item of material culture that is not directly linked with the forest ecosystem. Timbers and planks for housing, fuelwood for heating, countless items of material culture fashioned from wood and non-timber forest products, the plants managed and used for making the renowned Hupa baskets, staple food items such as acorns, game animals, a wide array of cultivated and managed edible plants and mushrooms, and a full suite of medicinal and sacred herbs, roots, and plants all come from the forest. Not surprisingly, many core aspects of Hupa cultural identity are also tied to the forest. This includes not only the large repertoire of stories and myths associated with the forest, its inhabitants, and the sacred landscape they together comprise; the key dances so central to creating and reinforcing Hupa lifeways such as the White Deerskin Dance, Jump Dance, and Brush Dance, are in many ways inextricably linked with the forest and its, the Hupa people's, and the world's, renewal. The forest is also where Hupa went and still go today to gain knowledge. Fasting at sacred locations, vision quests, and training sessions for aspiring medicinal practitioners and healers are all intimately connected to the forest and the broader landscape of which it was a part. These connections between forest and people have sustained the Hupa over millennia, materially, culturally, and in the realm of the sacred.

This relationship was one factor that enabled the Hupa to survive the depredations against themselves and their land that began in the mid-nineteenth century following the first Anglo incursions and continued through the beginning of the twentieth century. Unlike other native groups in the region, the Hoopa valley's residents successfully defended their land and their rights to live in their Valley, resisted the attempts of outsiders to control and benefit from the valley's resources, and maintained the integrity of their cultural traditions and identity. Prior to the invasion of Anglo miners, agriculturists, entrepreneurs, and others triggered by the discovery of gold in California in 1849, the primary contacts between Anglos and Hupa consisted of peaceful interactions with early explorers and trappers, such as Jedediah Smith, who passed through the area in 1828. The discovery of gold and the opening of the Trinity mines and the Klamath and Salmon river mines in 1849-50 dramatically transformed relations between American Indians of the region and Anglo outsiders. Fortunately for the Hupa, the supply lines for the Klamath and Salmon River mines lay to the north of the Hoopa Valley, through Yurok and Redwood Creek (Chilula) territory. Early miners and settlers may have avoided the Hoopa Valley because of rumors concerning Hupa military strength and prowess. Partly because of this, the Hupa were spared the brutal massacres and horrific genocide that eliminated the Wiyots

of the Humboldt Bay area, and decimated the populations of neighboring groups such as the Yurok, Chilula, Mattole, and Sinkyone American Indians. Wherever American Indians either resisted Anglo incursions into their territory, or were simply in the way, the Anglo response was systematically brutal. For example, a northern California newspaper, in the following chilling way, reported an incident in which Yurok villages at Weitchpec (at the confluence of the Trinity and Klamath Rivers) were attacked in retaliation for disrupting miners' supply trains and because those who lived there wanted to continue to erect fishing weirs:

The Indians are hostile at the forks of the Klamath and Trinity and it has been found necessary to administer to them the same rebuke we did to those on the coast. Some 50 or 60 Indians were killed and three villages burned. Effect good. (Alta California 8/20/1850, cited in Fredrickson 1982:48).

In response to the growing violence that came to be referred to as the Indian Wars, the U.S. Congress sent Commissioner Redick McKee to the area in 1851 to establish treaties with American Indian groups of the area that would "protect" and "domesticate" them through the creation of reservations. McKee negotiated 18 treaties in the region, including one with representatives of the Hupa, Yurok, and Karuk groups. However none of the treaties was ratified by Congress who rejected all of them in 1852, partly in response to public opinion that too much valuable land would be locked up by the reservation system (Fredrickson 1982). The Anglo settlers of the region opposed the establishment of reservations because it reserved land from potential settlement. Their desire was for the indigenous inhabitants to be either removed or exterminated to free up valuable resources for the Anglo influx to exploit (Huntsinger 1994:13). The Anglo influx continued apace. By 1860 there were 25 Anglo farmsteads and 45 Anglo households in the Hoopa valley. These early settlers were fearful of possible Hupa attacks. They knew that many Hupa men were well armed, having acquired arms and munitions from miners and traders (Fredrickson 1982:59). Hupa staunchly resisted attempts to relocate them outside of their ancestral homelands. During this period the forest served as a haven to which Hupa fighters and families could flee. The forest and their knowledge of it facilitated Hupa efforts to successfully resist attempts by the U.S. Army to relocate them to the Klamath Reservation (established by Executive Order in 1855).<sup>ii</sup> Eventually realizing the futility of evicting the Hupa from their home, and seeking to secure protection and their land claims, in 1858 settlers successfully petitioned the federal government to establish Fort Gaston in the Hoopa Valley. There followed several years of armed conflict, including the burning of Hupa villages and other scorched earth tactics by vigilantes and the U.S. Army. Hupa opposition to forced removal culminated in 1863 and 1864 with the successful resistance of Hupa fighters, based in the forest, against U.S. soldiers and their local guides. This resistance came to an end with the negotiation of the treaty of 1864 that established the Hoopa Valley Reservation (the reservation was not confirmed by Executive order until 1876). In February 1865 most white settlers in the valley were given 10 days notice to leave the valley and were provided compensation for the assets they left behind. In 1867 "the last farm was turned over to the government" (Fredrickson 1982:64).

#### On-going struggles to maintain cultural integrity and control of tribal natural resources

While the Hupa had fought and won their struggle against Anglo settlers and the federal government to remain in their valley, the costs of the struggle had been enormous. By 1864 the number of Hupa villages had been reduced from 11 to 4. This was due to a combination of factors including consolidation for defensive purposes and population decline resulting from the

combined effects of the slave trade in young boys and girls, war, disease, starvation, and migration due to fear of forced removal from the valley. By 1870 the estimated pre-contact Hupa population of 2000 had been reduced to 601, which was further reduced to 460 by 1887 (Fredrickson 1982:96).

Having won the initial struggle to remain in the Hoopa Valley, in the following decades the Hupa endured systematic efforts by the federal government to stamp out Hupa culture and identity. The primary vehicles for these efforts were the Bureau of Indian Affairs' (BIA) schools to which Hupa children were forcibly taken and taught to disdain their own ways and adopt those of the dominant culture. Some of these schools were as far away as Los Angeles and Oklahoma (Norton 1979:113). Additionally, most BIA Agents tried to ban the ceremonial dances central to Hupa culture and identity. Those Hupa who insisted on maintaining the Hupa way of life were punished by withholding their rations and supplies. Many were forced to rely on their knowledge of the forest to sustain themselves. In 1876 the Hupa successfully resisted the coercive attempts of the BIA agent to relocate them (with planned military support) to the Round Valley Reservation, roughly 100 miles to the south, in what is now Mendocino County. While some Hupa sought safety by moving up into the forests, others planned violent resistance in response to this attempt to yet again remove them from their valley. Realizing the violence that would ensure if relocation was forcibly implemented, the Agent, J.L. Broaddus, eventually dropped the relocation plan.

In addition to the attacks on their cultural identity, this period also witnessed a continued undermining of the natural resource base upon which the Hupa people had previously depended. Miners, ranchers, and settlers encroached within the reservation boundary. These encroachers were ineffectively repelled by the reservation's administration, whose dual Interior and War Department jurisdiction only exacerbated problems such as graft, corruption, and mismanagement. Furthermore, commercial salmon fishing and canneries had become established on the Klamath River by the 1880s. Soon after, the salmon runs on the Trinity River declined precipitously. They have yet to recover. The historically unprecedented levels of Chinook and Coho salmon kills on the Klamath River in 2002, resulting from a lack of clean, cold water because of upstream diversions, underlines the extent to which native people in northwestern California have still not been able to reclaim their water rights.

While native water rights claims remain contested, the Hupa people were able to solidify and reassert territorial rights, in the form of private land titles and communal control over the reservation's forestlands, near the end of the nineteenth century. Somewhat ironically, the vehicle for solidifying these tenurial claims was the Dawes, or General Allotment Act of 1887. Based on the assumption that individual land ownership would facilitate the assimilation of American Indians into the dominant culture, the Dawes Act authorized the allotment of 40 to 60-acre tracts of land to assigned heads of households and individual American Indians. In most cases implementation of the Dawes Act not only did not achieve the hoped-for objective of assimilating American Indians into mainstream American, but it also undermined the territorial integrity of many tribal groups and weakened their cultural integrity.

However, at Hoopa the opposite results obtained. Rather than being a mechanism that resulted in land loss and undermined cultural integrity, at Hoopa the Dawes Act was used as an instrument for securing private tenurial rights and reserving most of the Tribe's landbase to be managed in perpetuity for the collective benefit of the tribal members. While the first surveys were made in 1889 and allotments soon followed, the allotment process was not finalized until 1919 and allotment schedules were not finalized until 1922-23 (Norton 1973:1.104 [HVIR

Comprehensive Plan]). Tribal timber lands, comprising most of the lands within the reservation, were reserved from allotment. This was exceedingly important because it meant that, as the Hoopa Tribe gradually developed their own “modern” institutional structures of governance and internal capacity for technically sophisticated resource management, they had a relatively large land base of collectively owned intact forestlands that they could manage – once they regained control over them.

#### Political autonomy, emerging governance structures, and increasing control over natural resources

The institutional structures through which the Hupa strengthened their autonomy, sovereignty, and self-governance evolved gradually throughout the 20<sup>th</sup> century. The first formal Hoopa Valley Tribal Council was created through elections in 1911 at the instigation of the BIA superintendent (Roschmann 1991:114). The early council activities focused on maintenance and construction of reservation infrastructure. They also provided early opportunities for familiarizing members with governmental processes. However, as Roschmann notes, the Council possessed relatively limited power and autonomy, “self-government took place only to the degree that ....Hupas did not undermine the status quo....the council’s real purpose was to relieve the Superintendent of a ‘great number of small matters,’ not to institute a self-governing political body competing with the agent’s authority” (1991:118). Eventually, in 1927 the council was dissolved by the BIA because, as outgoing Superintendent Keeley stated in 1930 “tribal councils are the biggest source of agitation of anything in the Indian Service. They are usually made up of the hand picked agitators, and for the most part, the ones who can not, or will not, work or do anything for themselves” (cited in Roschmann 1991:118).

Throughout this period an informal “council of the people,” some of whom were members of the earlier formal council, continued to meet and press for political self-determination and economic self-sufficiency. Many of these council members were elected to the 1933 Bureau-approved seven-member Hoopa Business Council. Support for tribal councils had been growing throughout the 1920s as reformers such as John Collier, Commissioner of Indian Affairs for the new Roosevelt Administration, publicized the disastrous impacts of the Dawes Act and called for greater American Indian autonomy and self-governance through the creation of tribal councils that demonstrated principles of indirect rule. However, as with other colonial examples of indirect rule, tribal council authority stopped far short of true self-governance. As a sign of protest against the limited authority granted the tribal council, most of the 1933 Business Council members chose not to run in the 1935 election.

In a related move the tribe, in a referendum held in 1934, voted 174 to 8 to reject the 1934 Indian Reorganization Act (IRA), which repealed the Dawes Act (and the allotment system) and contained several provisions to support education, economic development, and tribal self-governance. The resounding rejection of the IRA was out of step with most Indian Tribes who stood to benefit from its provisions. Roschmann (1991) explains this apparent anomaly by arguing that the Hupa people had strategically employed provisions of the Dawes Act to secure their land ownership claims and that by rejecting the IRA they sought to retain their tenurial security. Other reasons included the rejection of the limited self-governance provisions of the IRA that fell short of government-to-government relations and concerns that accepting the IRA would possibly weaken Hupa claims based on the unratified 1851 and related treaties. Seen in this light the anomalous rejection of the IRA by the Hupa was consistent with Hupa efforts to strengthen their control over forest and other natural resources within the reservation as well as

to advance their self-determination and self-governing capacities. Meanwhile the Tribal Business Council continued to assert its authority in arenas where it could such as the use of tribal money in a revolving loan fund and “in local matters, such as inheritance claims, land disputes, the protection of fish and game, and the observance of tribal customs,”... “but in larger issues they found that the government would approve only those resolutions which echoed national policies” (Norton 1979:177).

The following years were marked by continuing efforts by the Hupa to advance their self-determination and their ability to control and benefit from the reservation’s natural resource base. In 1952 the Constitution and by-laws of the Hoopa Valley Tribe were approved by the Commissioner of Indian Affairs (Hostler 1967). In 1955 the Commissioner authorized per capita payments to Hoopa Valley Tribal members from revenues associated with the increased timber harvesting occurring on the Hoopa square under BIA management. Passage of Public Law 280 in 1953 transferred jurisdiction over many Indian lands as well as civil and criminal matter to the states and ushered in the “Termination Era” of federal Indian policy history. While termination policies had relatively little effect on the Hoopa Valley Indian Tribe, this was a period of tremendous land loss by the downstream Klamath River-based Yurok people; many Yurok allottees took their allotments out of trust status and fee-patented them to loggers or logging companies (Huntsinger 1994:27). The termination era came to an end in the 1960s and was replaced with a federal emphasis on Indian self-determination, including tribal authority for natural resources management. Principles of self-determination and self-governance were further advanced by the Indian Self-Determination and Education Act of 1975, which, among other things, included provisions for tribal contracting for services that the BIA and other government services previously provided.

Throughout this period, and until passage of the 1988 Hoopa-Yurok Settlement Act, there existed significant unresolved issues concerning whether or not the Hoopa Reservation created in 1864 and its subsequent enlargement in 1891 to include the downstream Klamath Reservation and the connecting strip between the two was a single integrated reservation and whether or not Yurok tribal members were entitled to a portion of the timber revenues generated by timber sales on the original Hoopa Valley Reservation (the “Square”). Legal action in 1963 brought by downstream Yurok tribal members who claimed a share of the revenues from the “Square” was not resolved until the 1988 Hoopa-Yurok Settlement Act. Up until 1978 the BIA had used the Hoopa Valley Tribal Business Council to manage the tribal timber resources and profits, but in that year it took over the management of the assets from the timber management program and held them in trust for both groups until the passage of the 1988 Settlement Act. The act divided the trust account between the two tribes, partitioned the land into two distinct reservations, and mandated that the Yurok form their own tribal government (Huntsinger 1994:32).

### **Forest management and its social and ecological legacy**

As with many forested reservations in the Pacific Northwest, after WWII the Hoopa Valley Indian Tribe became increasingly dependent on industrial-scale timber harvesting for generating economic revenue. Until the early 1980s timber harvesting and processing remained the mainstay of the reservation economy. Until 1991 forestry and timber harvesting was managed by the BIA. The short run dividend was a plethora of jobs and revenue which benefited community well-being if narrowly construed in economic terms. However, the industrial-scale focus of forest management at Hoopa for much of this period was associated with a number of

factors that ran contrary to the historically diverse and culturally informed community-forest relations that had existed previously. For example, industrial-scale timber harvesting disrupted the abundance and collection of many non-timber forest products. Indeed, until more participatory forest management processes were adopted following the assumption of the Hoopa Tribe's control over forestry operations, there was minimal incorporation of culturally informed values and forest management practices with the forest management plan. Also, the intensive harvesting pressure, combined with the dominant forestry practices of the time, bequeathed the Tribe a host of ecological problems including poorly stocked hardwood and brush dominated conifer stands and a dense network of roads, landings, and crossings that contribute large amounts of sediment to streams that support salmonid species and are used for domestic water supply. In short, while providing short-run economic benefits, the dominant model of BIA-managed forestry at Hoopa weakened the dense web of relations that bind the community and forests at Hoopa and generated negative environmental effects, both of which constitute much of the forest legacy with which the Tribe must now contend.

For the three decades following World War II, timber harvest levels exceeded sustained yield. Despite an early timber inventory by a BIA forester in 1947 that suggested the timber base could support an annual allowable cut of 15 million board feet (mm b.f.)/year, actual harvest levels for the next 30 years were much higher. During the 1950s the allowable cut hovered around 35 mmbf; this was increased to 40 mmbf during the 1960s. After destructive floods in 1955, 1962, and 1964, salvage harvesting operations, supported by both the BIA and the Tribal Council, were authorized and the allowable cut increased to 60 mm b.f. In the mid-1970s information from continuous forest inventory blocks installed in 1971 lead to a revised allowable cut of 26 mm b.f.; however the Sacramento BIA office rejected this estimate and retained the 40 mm b.f. as the allowable cut. Throughout the 1950s, 60s, and 70s logging and mill work provided the great majority of non-tribal government related jobs for reservation residents. Although management and other supervisory positions were almost always held by non-local non-Indians, logging and mill work was the economic engine during this period. As a result of reductions in the allowable cut, by 1981 all five mills on the reservation had closed and employment opportunities in logging was reduced by 85 percent (HVIR Transportation Plan 1994:11). Finally, in 1986 in response to further documentation of actual growth and yield of timber and reductions in timber harvest areas due to withdrawals or restrictions of commercial forest management, the Sacramento BIA office adopted a reduced AAC of 13.4 mm b.f. in their Interim Operating Plan, 1983-1992. This plan, however, was rejected by the Tribal Council in 1984, primarily due to unacceptable references within the plan to Yurok claims and other more technical issues.

The history of the rise and decline and stabilization of reservation timber harvest levels has several implications for current efforts to promote economic development. Firstly, timber harvest levels are more likely to drop than increase in the future. This means that the timber industry, in the foreseeable future, will not be the primary economic engine that it was in recent decades. Thus economic diversification, while fraught with challenges, is most likely the most promising approach for stimulating investment and economic growth. Secondly, the existing forest condition bears the marks of long-term disinvestment and liquidation of the forest asset. Based on analyses of regeneration survey data in the late 1980s, Hoopa Tribal Forestry concluded that approximately 10,000 acres of timberland were taken over by brush and hardwoods with little or no conifer stocking and that the conifers on more than 7,000 acres were being out-competed by brush. Thirdly, the reservation's timberland area is characterized by extremely dense road networks (in excess of 4.5 miles per square mile overall, and in some

watersheds the density approaches 6 miles per square mile). These road networks constitute the primary source of sediment delivery to streams and the primary threat to aquatic ecosystems. Road restoration and rehabilitation is therefore another high priority for the Tribe. As discussed below, this constituted a key point of engagement between Hoopa Tribal Forestry and BIA Northwest Economic Adjustment Initiative project funding.

#### Restoring the forest and re-invigorating the community-forest relationship

For more than a decade, the Hoopa Valley Indian Tribe has had full authority for managing the reservation's forestlands. Following the 1988 Hoopa-Yurok Settlement Act, the Tribe increased its control over forest management, initially by contracting with the BIA for various aspects of forest planning and management. By 1991 all aspects of the Hoopa Forestry Program were tribally managed: this includes timber sale layout, administration, scaling, wildland fire, silviculture and forest development (Hoopa Valley Indian Reservation Forest Management Plan 1994:169). Seen from a historical perspective, this is the culmination of more than 150 years of struggle for political autonomy, self-determination, and the right to remain in the valley they inhabited for thousands of years. Having successfully defended their claims to the forest resources within the reservation and maintained communal ownership of those resources, the Hoopa Valley Indian Reservation, through the Hoopa Forestry Division, now faces the challenging task of maintaining an economically viable forest management regime while contending with the destructive ecological legacies of past management practices. They simultaneously sought to re-integrate the full suite of community-forest relationships into the formal forest management process. A further challenge was the need to, within a context of long-term reductions in timber harvest levels, develop innovative ways to generate maximum forest-related employment and small business opportunities related to forest products. The resumption of full control over their forest resources allows the Hoopa to re-integrate and fashion new forest-people relations. As will be discussed below, the grant and funding opportunities offered by the Northwest Economic Adjustment Initiative facilitated this process in numerous ways.

One of the first priorities of the Tribe was to develop their own forest management plan, as distinct from the BIA forest management plan which had hitherto governed forest management on the reservation. An important feature of the plan development process (which lasted from 1992 to 1994) was the efforts that were made to solicit input from tribal members. Numerous avenues were pursued for soliciting tribal input. In April 1992 a written questionnaire was sent to all tribal members asking about their concerns and for their input on forest management issues; the results were sent back to the membership in October of that year.

This extensive outreach and tribal member input associated with the forest plan development process built upon earlier intensive collaborative efforts between Tribal Forestry and the Hoopa Tribal Council. By 1993 a video was made of different forest management options and a copy was sent (900 in total) to each tribal member household. The purpose of the video was to provide visual images of what different forest management alternatives would look like and to solicit additional input regarding tribal member preferences. Innovative relationships were also developed at this time between the University of California Cooperative Extension as well as with UC Berkeley faculty. These collaborative links facilitated the Tribe's efforts and abilities to compile their own Geographic Information Systems database for forest management planning and to conduct an allowable harvest analysis. The combination of in-house forest

management technical capacity, Tribal Council input, and solicitation of tribal member perspectives enabled the Tribal Forestry Division to develop a forest management plan that reflected the full spectrum of interests and values with respect to the Tribe's forest resources. These interests and values were translated into a set of general goals and minimum management requirements that would be applicable regardless of which plan alternative was eventually chosen (see appendix 1).

The extensive outreach process resulted in the identification of nearly 1,000 "issue, concern or opportunity statements" that were grouped into several subject areas such as cultural, socioeconomic, and biodiversity areas (FMP 1994:3). Cultural issues, concerns and opportunities included the need to burn for maintenance of traditional plants and to protect traditionally important non-timber forest product sites such as tanoak and mushroom areas. Socioeconomic issues, concerns and opportunities included the need to maintain an economically viable timber harvesting regime that provided quality jobs, fire protection and arson control, and road management and construction, among others. Biodiversity issues, concerns and opportunities focused on the effects of timber management on water quality and fisheries, and timber management's cumulative impacts on water quality as transmitted through direct impacts on soils and watershed conditions. Other biodiversity-related issues related to past, present, and future silvicultural practices, and the effects of timber management on wildlife.

The forest plan alternative that was eventually chosen for the 1994-2003 period sets the annual allowable cut at 10.4 mm b.f., significantly lower than any prior post-WW II allowable cut. The plan prioritizes stand rehabilitation and conifer restocking of areas that were captured by brush and tanoak following previous timber harvesting activities using manual release and planting methods (herbicide application was banned by a tribal resolution in the late 1970s). It identifies a wide variety of watershed restoration activities needed to protect domestic water sources and protect and enhance salmonid habitat. In response to issues raised by tribal members concerning cultural and socioeconomic issues, the plan identifies a large number of archeological and ceremonial sites as well as eight specific cultural areas, which include mushroom gathering areas, Port Orford Cedar areas, and camps and campgrounds, in which little or no timber harvesting is allowed. These cultural areas total more than 6,000 acres. Additionally, silvicultural prescriptions for timber harvesting in areas that produce mushrooms and other non-timber forest products that are not included in those areas are developed in a manner that is sensitive to the need to maintain and/or enhance their abundance. The plan also identifies forest areas important as viewsheds, wildlife areas (riparian corridors, travel corridors, falcon activity centers, traditional species activity areas, etc.), riparian areas, etc., in which timber harvesting is also restricted or not allowed at all. In short, the current forest plan effectively maps onto the tribe's forest ecosystem a wide variety of culturally informed and traditional forest management practices and uses. The extent to which a cultural overlay modifies, shapes, and conditions the tribe's timber harvest operations is unprecedented in this century in the 20<sup>th</sup> Century. It represents the landscapes effects of the integration of sovereignty, technical forest management capacity, and a participatory process that encourages the expression of culturally rooted values and interests that pertain to the forest resource.<sup>iii</sup>

### The Northwest Economic Adjustment Initiative (NEAI) at Hoopa: its role in strengthening community-forest relations

Many of the NEAI projects at Hoopa touch or engage directly with the dense web of relations that bind together the community and the forest ecosystem. In general, these projects

were advanced on the assumption that enhancing community well-being and improving forest ecosystem health are interdependent goals. The focus of the following discussion is on those projects that most directly address the community-forest relationship. These include several grants by the Economic Development Administration to the Tribe's Office of Research and Development for capacity building and training purposes, USDA Rural Development Department support for a revolving local program, U.S. Forest Service support for Tsemeta nursery to expand its native seed and medicinal herb collection and processing capabilities, and a Forest Service grant to support an oral history research effort of the Hupa Language, Culture and Education Program, among others. The largest NEAI grants, provided to the tribe by the Bureau of Indian Affairs, were for a variety of forest restoration efforts. The purpose of this discussion is to illuminate both the nature of the relationship and some of the ways in which the Tribe is currently trying to re-invigorate it.<sup>iv</sup>

#### *Office of Research and Development forest-related grants*

The Office of Research and Development (until 1995 known as the Planning, Research, and Development Division) is responsible for planning and coordination of economic development activities. Its purpose is to stimulate private and public investments that provide employment and economic growth opportunities. All but two of the NEAI grants received by the Office of Research and Development came from the Economic Development Administration of the Department of Commerce, the non-Economic Development Administration grants came from the U.S. Department of Agriculture's Rural Business Enterprise Grant program. Several of the grants that the Office of Research and Development received were for economic development planning, specifically to reduce the Tribe's economic dependence on timber harvesting and to promote private sector growth. Some of the grants the Office of Research and Development received did directly relate to the forest ecosystem. For example, a 1995 Economic Development Administration planning grant enabled the Tribe to develop a feasibility study of a log sort yard for value added wood processing and a small mill. This was planned to take advantage of the Tribe's status as a SmartWood certified forest manager. While the log sort yard and mill has not been developed, there are currently efforts underway to develop value-added processing facilities for the Tribe's certified hardwood resource (primarily oak and madrone).

Recent Economic Development Administration grants to Office of Research and Development include provisions for developing a small business incubator facility that will be managed in association with the Business Service Center. The business incubator will, among other things, provide floor space, kilns, metalwork facilities, and woodworking equipment to complement the business center's technical and financial analysis services, and sales and marketing support for emerging and expanding small-scale business entrepreneurs. The incubator would also facilitate the development of food processing businesses, such as a cannery, through the provision of a commercial kitchen and other services. Many Hoopa entrepreneurs are artisans (basket weavers, metal workers, wood workers) whose work, materials, and creativity is closely linked with the forest ecosystem, both as a source of raw materials and culturally-mediated inspiration and artistic design.

#### *Oral history, Hupa identity, and forest relations*

In 1998 the US Forest Service, through its Rural Community Assistance program, made a grant to the Office of Research and Development and the Hupa Language, Culture and Education Program that focused on recording and preserving Hupa oral history, customs and traditions. The grant was supplemented by contributions from the Hoopa Valley Tribe and the National Endowment for the Arts. The purpose of the effort was to preserve existing Hupa oral histories,

to interview and record elders, and to prepare a publication about Hupa oral history that could be used in educational contexts.

A primary thrust of this effort was a focus on women elders and the transmission of knowledge concerning Hupa values, traditions, and culture from women elders to younger women and girls. Organizers of the project wanted to provide a vehicle for communicating to Hupa girls the "everyday Native American world view" of Hupa women who were 70 and 80 years old, and to help Hupa girls find ways of being Hupa in the contemporary world. Hupa women college graduates interviewed several women elders as part of this project. In addition to recollections concerning their own lives, such as their experiences as children in the BIA boarding schools, many of the women elders spoke about the importance to them of the sacred dances and their role in some of the dances. Many also described their memories of making trips to the forest with older woman to collect materials for basketweaving and the strong relations that bound elder and younger Hupa women. Portions of the interviews with three women elders were developed into a booklet entitled "Collecting, Preserving, and Sharing Our Heritage."

The results of this effort, including but not limited to the published booklet, have been used as the basis for a Hoopa summer school program for children in grade school, particularly those between the ages of nine and fifteen. About 30 girls participate in the summer program. Part of the effort to equip young Hupa women and girls to learn how to be Hupa in the contemporary world involves revitalizing and reacquainting their relationship with the forest. To accomplish this the summer program includes trips up into the forest to learn and practice some of the things the women elders discussed in their interviews. The links between identity, education, and the forest are reflected in this project.

### ***A revolving loan program and forest-based employment***

In 1998 USDA Rural Development granted the Tribal Loan Department \$105,000 to be used as a revolving loan fund. Ms. Joyce Johnson, a loan officer in the department, applied for, received, and managed the grant. In managing the grant, she made a concerted effort to make as many small loans to as large a number of people as possible. Of the approximately 30 loans made from this grant, the majority of them were for \$2,000 or less. All of the loans were made to individuals who either were starting or expanding a business. Many of the small loans supported small businesses that were directly or indirectly related to the forest. For example, several forest contractors used small loans to purchase equipment and supplies or for the bond money required to bid on jobs. And self-employed artisans, such as woodworkers, metalworkers, basket weavers, and jewelry craftspeople, were also able to purchase needed equipment and supplies. Some of the larger loans were used for purposes such as the purchase of a dump truck for a self-employed contractor, remodeling a downtown restaurant that had been damaged by fire, and helping establish a new downtown coffee house. These latter two establishments are both owned and managed by Hupa women entrepreneurs. Additionally, many of the artisans who were able to purchase supplies and equipment using this loan fund were also women. Consistent with other micro-credit programs around the world, repayment rates were very high, approaching 100 percent. That many of the loans were made to forest-related businesses underscores the close links between community, economy, and the forest at Hoopa.

### ***Tsemeta Forest Nursery – expanding from conifer seedlings to the diversity of non-timber forest products***

Tsemeta Forest Nursery was initially constructed in the late 1980s as a state of the art glass-covered greenhouse for growing containerized forest planting stock. For the first ten years of its operation the nursery staff concentrated on producing containerized forest seedlings that were purchased under contract by the Hoopa Tribal Forestry Department, US Forest Service, Bureau of Land Management, and California Department of Forestry for reforestation and forest restoration projects. However, by the late 1990s, with the dramatic reduction in forest harvest levels, especially clearcutting practices, the demand for forest seedlings for replanting purposes sharply declined. Nursery Manager Elton Baldy, recognizing the need to diversify the range of products and plants produced by the nursery, began exploring the potential for producing ornamental plants, shrubs, and trees, native plants and grasses, and medicinal herbs. As part of this diversification effort, in 1997 Mr. Elton Baldy applied for a Forest Service grant to support native seed and medicinal plant drying and processing facilities. In 1998 the US Forest Service Rural Community Assistance program provided such a grant. By this time relationships had been developed with wildcrafters in the region, including the High Mountain Herb Cooperative, Trinity Alps Botanicals, and other individual wildcrafters. It was envisioned that Tsemeta Nursery would be able to enter into partnerships with these wildcrafters through the purchase of their raw product and then drying, processing, and marketing it. Additionally, Tsemeta Nursery anticipated on site production and processing of medicinal herbs and native grasses. To this end a plot of land was certified for organic production by the California Certified Organic Growers Association.

The enhanced nursery infrastructure that the grant enabled has allowed the nursery to purchase, process, and sell a variety of different native grasses and medicinal herbs. The propagation of native grasses and other native plants used in ecosystem restoration projects has been relatively successful and is consistent with the forest restoration needs of the Hoopa Tribe and of adjacent public and industrial forestland owners. However several challenges have beset the nursery's efforts to grow, process, and market medicinal herbs. For example, the High Mountain Herb Cooperative, at one time a promising partner for medicinal herb collecting and processing, is no longer in operation. One of the reasons for the cooperative's demise is the fickle and cyclical market for medicinal herbs such as St. John's Wort and Echinacea – where once these herbs fetched a good market price. In the last few years their prices have persistently declined. Unpredictable market shifts, in part due to the globalization of the medicinal herb market, have made it difficult for wildcrafters and the nursery alike to identify products whose prices are stable and that are economically viable to grow or wildcraft, process, and sell. While the Forest Service grant has helped Tsemeta Nursery to diversify its operation, the nursery has been challenged to diversify its operation to ensure its survival. Successful economic development that draws on people's local forest knowledge is constrained by both non-local factors and the ability of a small local enterprise to respond to these dynamic and challenging conditions, and local relationships. A healthy people-forest relationship may be a necessary but not sufficient condition for sustainable community-based development.

### ***Hoopa Tribal Forestry, forest restoration, and creating jobs in the woods***

The dominant post-WW II forest management practices have bequeathed the Hoopa Tribe a legacy of thousands of acres of brush or oak dominated land that once supported old growth

conifers, a heavily roaded landscape, and a current and potential sediment delivery problem that threatens the Tribe's vital fishery as well as domestic water supply sources. It is widely accepted that erosion rates on reservation lands are quite high. For example, the magnitude of erosion from reservation roads is three times higher than for roads in the adjacent Redwood Creek watershed, which is mostly under industrial timberland management (Oldenburg 2001).

Oldenburg, a Tribal forestry hydrologist, suggests that this difference is not surprising given the "size, type, location, and maintenance levels on these roads," (2001:9). There is clearly a need to pursue vigorous forest and watershed restoration work and with that work provide employment to former timber workers. Hoopa Tribal Forestry has been working aggressively on these fronts and support from the Northwest Economic Adjustment Initiative has helped them to do so. The watershed restoration projects funded by the Initiative clearly illustrate the link between ecosystem restoration and employment generation.

Between 1994 and 1998 the Forestry Division of the Natural Resources Department received five Jobs-in-the-Woods grants, all through the Bureau of Indian Affairs. The grants funded a combination of watershed assessment and restoration, monitoring, and contractor/worker training in Mill Creek, Bull Creek, Tish Tang, and Pine Creek. These four watersheds were prioritized for restoration work based on watershed assessments across the reservation. The assessments also guided the restoration activities within each watershed. The goals and objectives of these efforts were to reduce sediment delivery to anadromous or domestic use streams by treating sites of chronic or potentially catastrophic sediment production, to create jobs for heavy equipment operators and contractors previously employed by the timber industry, and to set up long-term monitoring stations to assess effectiveness of restoration efforts and general aquatic ecosystem health (Blomstrom 1:1996).

By the end of 1996 these watershed restoration efforts had produced impressive results. A 1997 Watershed Restoration Status report notes that a total of 90,580 cubic yards of material had been removed from the Mill Creek, Pine Creek and Tish Tang Creek drainages and that 129,305 cubic yards of material was estimated to have been saved from entering streams. This latter figure represents a sizeable proportion of the total treatable sediment volume of 192,670 cubic yards estimated by Pacific Watershed Associates (a private consulting firm) for these three drainages. Prior watershed assessment work by Pacific Watershed Associates, as modified, updated and Geographic Information System mapped by the Tribal Forestry Division, provided the basis for prioritizing drainages and individual sites for restoration work. This allowed restoration funds allocated to the Tribe to be used most effectively.

Because provision of employment was a key goal of these projects, contractor training for restoration work was made a priority for this work. Training workshops for road restoration, decommissioning, and obliteration were provided to local contractors. Not only were these free of charge, but contractors received a stipend for participating in them. Restoration efforts for calendar years 1995 and 1996 provided a total of 9 full-time jobs for the four month restoration season. All of these individuals had previously been employed by the timber industry. One of the contractors who participated in the restoration workshops and who was contracted to decommission several roads has subsequently been able to successfully bid on U.S. Department of Interior Bureau of Land Management watershed restoration contracts in other parts of Humboldt County.

While the first grants to the Tribal Forestry Division focused on watershed restoration efforts, the later grants addressed on-going assessment and monitoring needs. One example of this is Supply Creek, which currently has impaired anadromous fish habitat and impaired

domestic water supplies. Research by the Tribal Forestry Division shows that on average, between 1954 and 1993 Supply Creek background sediment yields were 4,585 tons per year, while sediment yields from roads and log loading sites were 25,930 tons per year. This high level of sedimentation has compromised the water supply of about 1,500 valley residents. The watershed assessment grant from the Bureau of Indian Affairs enabled Tribal Forestry to identify 15 major issues concerning the current condition of the watershed. The watershed assessment developed watershed restoration project objectives and then specified restoration activities, complete with field reviews and tentative restoration prescriptions. This work provided the basis for the next Jobs-in-the-Woods NEAI grant, which requested funding for implementing restoration activities on Supply Creek.

In 1998 the Tribe received a grant from the BIA to conduct watershed restoration activities in Supply Creek. The restoration work was designed to stabilize upland slopes and reduce the potential for future sediment delivery to Supply Creek. This approach is based on the assumption that it is more cost effective to prevent the input of new material into already degraded streams and allow the normal stream energy to flush previous sediment inputs, rather than attempting to excavate sediment from the stream. The proposed restoration work (most of which is now complete) is anticipated to prevent 193,000 cubic yards of material from entering the stream, thus reducing the time needed for the stream to recover from past sediment inputs, which currently total approximately 800,000 cubic yards of material. The work includes activities such as removal of stream crossings, reconstruction of existing rolling dips in forest roads and construction of new ones, reconstruction and stabilization of failing road fills and gullies, culvert installation, road decommissioning, and brush removal and moderate road construction work. All of the on-the-ground watershed rehabilitation work was contracted out to local Indian contractors, most of whom had attended the “Watershed Restoration for Heavy Equipment Operators” training workshops offered as part of the previous NEAI grants to Tribal Forestry.

The last NEAI grant from the BIA was awarded to the Tribe in 1999 to fund baseline implementation and effectiveness monitoring of the last five years of watershed restoration work and timber harvesting activities on the reservation. Monitoring will take place in those watersheds in which NEAI funded restoration work has taken place since the early 1990s plus a fifth watershed, Captain John Creek, which is relatively pristine and can function as a reference watershed. Captain John Creek is also an important domestic water supply. The project aims to test the implementation and effectiveness of forest and road management practices in terms of effects on water quality and fish productivity or habitat, to gather baseline data regarding Total Maximum Daily Limits (TMDLs) for the Tribe’s water quality control plan, and to support Geographic Information Systems mapping of forest management activity cumulative effects. By assessing the effectiveness of current best management practices governing forest management, in terms of their ability to maintain or enhance water quality, the monitoring will enable determination of whether or not adjustments are needed in these practices in order to protect water quality and fish habitat.

#### Conclusion: When healthy community-forest relations aren’t enough

Community-forest relations at Hoopa once again emphasize the interdependence of community and forest health. The interdependence between political sovereignty, cultural identity, and the control, management, and use of forest resources is clearly evident. At Hoopa, culture is encoded through the diverse ways in which Hupa people use, value, and manage the

natural resources on their reservation. The forest landscape of the reservation is as much a cultural landscape as it is an ecological landscape. Its structure and function in many ways encodes and reflects culturally informed resource management practices. Species important for basket weaving are actively managed for, as are a wide variety of medicinal herbs and other plants. Subsistence-oriented uses of the reservation's natural resources, such as fishing for salmon and the gathering of other foodstuffs, are both crucial safety nets for un- or underemployed people and their dependents as well as activities that are important vehicles for transmitting lifeways and practices central to Hupa identity. Not surprisingly, the Hoopa Forest Management Plan acknowledges, provides for, and facilitates the cultural practices associated with these elements of Hupa culture, and they actively manage for those species that are particularly valued within this culturally-attuned natural resource management framework.

However, a vital relationship between community and forest does not guarantee economic well-being. Even before the decline in timber harvesting in the late 1980s, low income levels and high unemployment characterized the reservation economy. In 1971 the median family income was \$3,389, one third of the national median family income of \$11,106. The 1971 per capita income was \$1,430, about one third of the state per capita income of \$4,610, while unemployment hovered around 30 percent (Hoopa Valley Indian Reservation, Comprehensive Plan 1973:2.202). Following the regional and reservation declines in timber harvests that began in the 1980s and the closure of all five mills located on the reservation, unemployment and associated hardships skyrocketed. Estimates of unemployment rate vary, but they are all high. A 1988 Bureau of Indian Affairs Labor Force Report estimates unemployment at 81.43 percent (cited in HVIR 1996-2001 Transportation Plan 1996:11). Estimates of the heads of households whose income is below the established poverty income level range as high as 81.57 percent (HVIR 1996-2001 Transportation Plan, 1996:11). The 1990 Census indicates a 40.7 percent poverty rate for households and a 29.6 percent unemployment rate for the reservation. The 1999 Tribal Census Project of the Tribal Data Resources Division reports an unemployment rate of 32.4 percent with an additional 5.3 percent employed only seasonally and 9.7 percent employed only part time for tribal members.

By any measure, poverty and unemployment rates are several times higher than county, state or national averages. Private sector investment and job creation continues to stagnate and addressing drug and alcohol abuse issues continues to be identified by the Tribal Council as a top priority. In short, travelling from the coastal portion of Humboldt County to the Hoopa Valley Indian Reservation is still, in many respects, analogous to moving from a first world to a third or fourth world context, history, and economy.

At least two sets of implications concerning community well-being can be drawn from these statistics. The first concerns the fact that developing a vital and self-sustaining community-forest relationship, as has been accomplished at Hoopa, is not enough to ensure community well-being because of the off-reservation factors that hinder or support economic development, the exercise of political autonomy, and the control and management of tribal natural resources. As the example of the difficulties that Tsemeta Nursery faced with processing and marketing of medicinal herbs illustrates, the local effects of globalization can seriously constrain reservation-based economic development initiatives. Other off-reservation factors also determine the sideboards of what can and cannot be accomplished on the reservation. Perhaps the most

dramatic example of this are the recent salmon kills on the Klamath River. As of the time of this writing, between 10,000 and 40,000 dead Chinook salmon, many weighing more than 40 pounds and laden with eggs, are rotting in the lower reaches of the Klamath River; many more carcasses will never be counted. At least 100 dead Endangered Species Act-listed Coho salmon and steelhead have also been found. These fish, returning from the ocean to spawn in the gravel bars from which they hatched in prior years, have succumbed to diseases that have run rampant due to a lack of clean, cold water flows in the river and the consequent crowding and increased vulnerability of the salmon runs. While the science is predictably unclear, many suspect that upstream water diversions from the Klamath and Trinity Rivers for irrigation and hydroelectric power generation are at least partly responsible for the lethal low flows and warm temperatures in the Klamath River. While the Bureau of Reclamation has agreed to a request by the National Marine Fisheries Service to a temporary release of water from upstream reservoirs on the Klamath River, many suggest that this is too little too late and that while the release may enable fish to make it further upstream, they will simply be trapped in smaller pools and holes when the pulse of water subsides. They also question an Interior Department decision last year to restore water deliveries for upstream irrigators who depend on Bureau of Reclamation water for farming and ranching. This decision reduced this year's water flow in the Klamath to 76 percent of last year's, which was already considered a drought year flow level. Furthermore, legal battles between the federal government and those who appropriate water from the Trinity River, such as Westlands Water District (which grows cotton in the arid San Joaquin Valley) and power generators prevent the federal government from releasing water from the Trinity River to save the fish.

While the current crisis is acute, it is only the most recent manifestation of a process that began in the 1880s when salmon overharvesting to supply the canneries on the lower Klamath decimated the upstream salmon runs in Hoopa territory. And while it is not possible to convey in words what these historically unprecedented fish kills mean to native groups such as the Yurok and Hoopa for whom salmon constitute material, symbolic, and spiritual sustenance, it is clear that the struggles of the Hoopa and neighboring Native American groups for self-determination and the right to maintain their traditional lifeways and culture are far from over. For while the Hoopa may have embarked on a cutting edge and sophisticated watershed restoration regime on their reservation, the cleanest gravels and purest cold pools and riffles will be useless for spawning fish if upstream diversions prevent the returning salmon from reaching them. Thus, achieving the goals for which the Hoopa have long struggled, and which have been described in this case study, requires an ability to reach beyond the reservation boundaries and effectively engage with some of the most powerful vested interest groups in the Western United States – hydroelectric power generators and corporate agriculture. When community well-being, through the presence or absence of salmon, is linked with political and economic forces of this magnitude, it is clear that healthy community-forest relations are necessary but not sufficient for its realization.

The second set of implications regarding community well-being at Hoopa point to processes that are internal to the reservation and relate primarily to its economy. They concern the need for economic diversification, developing a strong private sector within the reservation economy, and attracting outside investment. Even in the early 1970s when the timber industry was “healthy,” the Hoopa Valley Business Council recognized the need for economic diversification to expand

job opportunities, raise personal income levels and reduce dependence on the timber industry. These goals remain a high priority for the Tribe and they constitute the guiding principles for Tribal entities such as the Office of Research and Development, the Loan Department, and others.

They also inform the innovative efforts of the Hoopa Valley Tribe to understand and respond to the implications of tribal sovereignty for tribal economic development. As articulated by Mr. Daniel Jordan, the crucial, and missing link in the calculus of tribal economic development is acknowledgement of the importance of the relationship between sustainable economic development and tribal sovereignty. Jordan and others argue that the central impediment to sustainable economic growth on reservations is the lack of understanding of the implications of tribal sovereignty for economic development. The fact that tribes are sovereign entities fundamentally differentiates them from other non-tribal communities. Because tribes are sovereign entities, state laws and institutions such as business codes, court systems, and other legal frameworks governing business transactions do not apply on reservation lands. The federal government has constitutionally reserved the right to conduct relations with tribes, but it does not regulate business relations. The state government does regulate business transactions, but it has no jurisdiction on reservations. The result is a void of uncertainty on reservations regarding business activity unless the tribe itself has enacted its own business and other codes. Because of this essential difference between reservation and non-reservation communities, Jordan argues that economic development programs and initiatives will never succeed in bringing about sustainable economic growth unless they first acknowledge these differences, understand the implications for policies that promote economic development, and then tailor programs and interventions accordingly.

Acknowledging the institutional and legal void at Hoopa, the Tribe has recently taken the lead in developing its own set of Comprehensive Business Codes, part of its effort to develop the court rules and business codes and associated infrastructure necessary for supporting tribal and non-tribal business and economic development. These codes provide the “broad infrastructure and framework under Tribal law that is needed by any business to be successful” (Jordan 1999:4). The Tribe has developed at least 10 different business codes. For example the Title 50, the Tribal Comprehensive Business Policy Code, approved in 1998, sets out tribal and private sector business policies, tax policies, preferences for supporting local businesses through local purchasing agreements, and establishes a 1 percent business tax on gross revenues to help maintain the Tribal Department of Commerce. Other business codes include the Tribal Corporations and Entities Code, Tribal Non-Profit Corporations Code, and Tribal Small Business Incentive Program, among others. The Tribe has also developed model Articles of Incorporation, Bylaws, and Commercial Leases as well as a publication entitled “Creating Business Opportunities on Indian Reservations.” With respect to court rules, the Tribe has developed and adopted a comprehensive set of rules concerning the structure and operation of a tribal court system, procedures for the appointment and removal of judges, the structure and function of a tribal appellate court, clerk and records, personnel policies, and jurisdictional issues.

By taking the initiative in developing these forms of institutional infrastructure, the Hoopa Valley Indian Reservation is clarifying and improving its relationship with the state of California and establishing the conditions of certainty, stability, and security that are necessary in order for prospective investors to be willing to invest in Indian Country. Businesses seeking to locate on

the Hoopa reservation can now apply for and receive a business license and articles of incorporation from the Tribe's Department of Commerce. These documents are recognized by the State of California and banks and other lending institutions as legally binding documents, that for example, provide the necessary security for extending credit and making loans. Embracing and strengthening tribal sovereignty and governance institutions as a necessary but insufficient condition of economic development is an approach from which states will also benefit. The preponderance of evidence supports the contention that healthy, sustainable, and productive reservation economies benefit adjacent non-reservation economies through the provision of jobs, tax payments, and enhanced investments in environmental protection and restoration. Because sustainable reservation economic development depends on the effective exercise of tribal sovereignty, it stands to reason that states have a stake in supporting it. "Support tribal sovereignty, and you will make it possible for Indian nations not only to support themselves but to benefit non-Indian communities," (Cornell 2000:5).

This study of community-forest relations at Hoopa suggests that a positive and mutually beneficial relationship between community well-being and forest management and health is perhaps a necessary but not sufficient condition for overall community well-being measured in economic, cultural, and political terms. The elements of successful and sustainable forms of economic development include the exercise of meaningful sovereignty and the development of effective and culturally appropriate governance structures and institutions are key elements of this process. An additional challenge concerns the need to develop effective institutional mechanisms and capacities for grappling with off-reservation phenomena (such as competing claims for water resources) that directly affect the tribe's cultural and material integrity and identity.

Appendix 1

This study of the Hupa people would not have been possible without the help of the following people:

Nolan Colegrove	Director, Forestry Division
Greg Blomstrom	Planning Forester, Forestry Division
William Colegrove	Tribal Council Member
Joyce Johnson	Loan Officer, Loan Department
Jack Biondini	Tribal Member (formerly Roads Division)
Jack Norton	Director, Office of Research and Development
Elton Baldy	Nursery Manager
Keith Taylor	American Indian Community Coordinator
Daniel Jordan	Self-Governance Coordinator, Director-Department of Commerce
Anne Berblinger	Economic Development Administration
Paul Masten	Masten Logging
Mark Higley	Wildlife Biologist, Forestry Division
Mike Orcutt	Director, Tribal Fisheries Department
Robert Hostler	Former State CERT Representative
Callie Lara	Director, Hupa Language, Culture & Education Program
Debbie Coggins	USDA Rural Development
Pamela Mattz	Tribal Council Member
Dale Risling	Former Tribal Council Chair

## Appendix 2

### Bibliography

- Bearss, Edwin. 1981. History Resource Study: Hoopa-Yurok Fisheries Suit, Hoopa Valley Indian Reservation, Del Norte and Humboldt Counties, California. Denver, CO: Professional Support Division, National Park Service, Department of the Interior.
- Blomstrom, Greg. 1996. Status of the Hoopa Reservation 1994 and 1995 Watershed Restoration Projects. Hoopa, CA: Hoopa Tribal Forestry.
- Blomstrom, Greg. 1997. Watershed Restoration Status of the Hoopa Reservation 1996 Projects. Hoopa, CA: Hoopa Tribal Forestry.
- Collecting, Preserving, and Sharing Our Heritage. 2000. Hoopa, CA: Hupa Language, Culture, and Education Program.
- Cornell, Stephen. 2000. Tribal Economies and Tribal-State Relations: How Are They Connected? Sovereign Nations: Newsletter of Tribal Self-Governance. January/February.
- Fredrickson, David. 1982. Cultural Resource Survey and Evaluation of Portions of the Hoopa Valley Indian Reservation, Humboldt County, CA. Sonoma State University: Anthropological Studies Center.
- Hoopa Valley Business Council. 1973. Hoopa Valley Indian Reservation Comprehensive Plan. Hoopa Valley Indian Reservation.
- Hoopa Valley Indian Reservation. 1999. Monitoring Proposal for Selected Watersheds of Main Stem Trinity River and Lower Klamath River.
- Hoopa Valley Tribal Council. 1998. Tribal Comprehensive Business Policy Code, Title 50 of the Hoopa Tribal Code.
- Hoopa Valley Tribal Forestry. 1994. Hoopa Valley Indian Reservation Forest Management Plan for the period 1994-2003.
- Hostler, Patricia and Byron Hostler. 1967. History of the Hoopa Tribe. Hoopa Valley Business Council: Willow Creek, CA.
- Huntsinger, Lynn. 1994. A Yurok Forest History. University of California, Berkeley: Department of Environmental Science, Policy, and Management.
- Jordan, Daniel. 1999. Hoopa Valley Tribe Moves Beyond Self-Governance to Create Business Environment. Sovereign Nations: Newsletter of Tribal Self-Governance. November/December.
- Nelson, Byron, Jr.. 1978. Our Home Forever: A Hupa Tribal History. Hoopa, CA: Hupa Tribe.
- Norton, Jack III. 2001. Proposed Strategic Plan for Tsemeta Forest Nursery. Office of Research and Development: Hoopa, CA.
- Norton, Jack. 1964. A Historical Review of the Hoopa Reservation and the First Allotting Program. Manuscript. Humboldt State University.
- Norton, Jack. 1979(1997). Genocide in Northwestern California: When Our World's Cried. San Francisco: Historian Press.
- Office of Research and Development. 1996. Hoopa Valley Indian Reservation Transportation Plan.
- Office of Research and Development. 1998. Hoopa Valley Indian Reservation 1999 Overall Economic Development Strategy.

- Oldenburg, Edward. 2001. Erosion Rates and Sediment Delivery Ratio of Forest Roads on the Hoopa Valley Indian Reservation, Hoopa, California. Hoopa Tribal Forestry: Hoopa, CA.
- Roschmann, Joachim. 1991. No Red Atlantis on the Trinity: The Rejection of the Indian Reorganization Act on the Hoopa Valley Indian Reservation in northwestern California. Ph.D. Thesis. University of California, Davis.
- United States Census Bureau. 2000. Profile of General Demographic Characteristics, Hoopa Valley Reservation, CA.
- United States Congress. 1988. Public Law 100-580, Hoopa-Yurok Settlement Act.

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Endnotes

<sup>i</sup> *Hupa* refers to the people of the tribe; *Hoopa* refers to the reservation land.

<sup>ii</sup> Fort Terwer was constructed to protect and provide for the Klamath Reservation American Indians. However, in the winter of 1861-62 a flood destroyed the fort. Administration of the reservation was then transferred to Fort Gaston on the Hoopa Reservation. Anglo settlers claimed that the flood had forced the federal government to abandon the reservation and they attempted to settle and file claims within the Klamath reservation boundaries (Huntsinger 1994).

<sup>iii</sup> This integration is reflected in the fact that since 1996 the tribe has been certified by SmartWood under the Forest Stewardship Council guidelines for forest certification.

<sup>iv</sup> Some NEAI projects did not directly address the community-forest relationship, e.g. Economic Development Administration grants to the Office of Research and Development for establishing a Business Service Center. These grants and projects are not discussed here, or are only mentioned in passing.