

# STEWARDS OF THEIR LANDS:

## A Case Study of the Klamath Tribes, Oregon

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**T**he Klamath Tribes have a long history in forestry activities. Congressional termination deprived them of 1.2 million acres of rich forestlands that they cared for “since time immemorial.” They wish to return to and manage these forests that supported their ancestors. Their initiative includes a number of community-based forestry activities that center around restoration of the forest and their land base. Their goal is to restore community vitality, economic self-sufficiency, attain ecosystem improvement, and preserve their cultural identity. The success of the Klamath Tribes’ community-based forestry initiative depends upon their ability to obtain funding for the acquisition of key forestlands and their ability to directly manage their forests.

According to a 2005 *National Report to the Fifth Session of the United Nations Forum on Forests*, in the continental U.S., there were 199 Indian reservations containing a total of 18 million acres of forestland and 10.4 million acres of woodlands (forested land with less than five percent crown cover of commercial timber species). The 97 most heavily forested reservations contained about 5.6 million acres that were actively managed for timber production, with a standing inventory of 112 billion board feet. The forests of these 97 reservations support an average annual allowable harvest of 2 billion board feet. Many Tribes carry out all forestry functions using both modern science and traditional knowledge (such as the Yakama, Hoopa, Menominee, and Seminole). Formally the Bureau of Indian Affairs performed all forest management. The number of Tribes directing the management of their own forest resources continues to increase.

Important elements of this story include:

1. Efforts of the Klamath Tribes to manage and restore their forest lands;
2. The impact of healthy forests on cultural, social, and economic resilience; and,
3. The role of federal legislation in securing and restoring Tribal lands.

### History of Klamath Tribes and Forest Reliance

The Klamath Tribes are comprised of the Klamath Tribe, the Modoc Tribe and the Yahooskin Band of Snake Indians (Paiute). The Klamath Tribes are located in Chiloquin, Oregon, about twenty-five miles north of Klamath Falls. As hunters, fishers and gatherers living off of the forest, the Klamath Tribes have always lived in a vast region of 23 million acres stretching from central Oregon’s high desert to

the Pit River country of northern California. In 1864, the Treaty of Klamath Lake reserved for the Klamath Tribes more than two million acres of “the Klamath heartlands, including upper Klamath and Agency Lakes, as well as the Williamson and Sprague drainages.” The remaining 21 million acres (ceded lands) became property of the U.S. Government, as described by the scholar Theodore Stern. A combination of survey errors, fraud and various federal Indian policies reduced the reservation to 1.1 million acres, which ultimately became the Klamath Tribes’ Reservation. In spite of the significant land loss, the Klamath Tribes created a prosperous timber, ranching and farming economy, and the Klamath were frequently referred to as “the second wealthiest Tribe in the nation” prior to termination.

The U.S. Army and the Indian Service began to log big pines in riverside groves and established sawmills on the Williamson River. The first sawmill was constructed in the 1870s and its revenues paid the expenses of Tribal government and supported a medical clinic for the Klamath Tribes. By 1896, timber sales to parties outside of the reservation totaled approximately a quarter-million board



Ponderosa pine stand ca. 1930.

Harold Weaver

feet. With the arrival of the railroad in 1911, reservation timber became extremely valuable and the economy of Klamath County was, in part, sustained by it for decades. In 1913, influenced by progressive-era forester Gifford Pinchot, the U.S. Indian Service and the Klamath Tribes began a systematic program of sustained-yield logging on Klamath lands to produce income for the Tribes. At an annual cut that averaged 111 million board feet, the harvest produced an annuity for each Tribal member. Three-quarters of the

# Klamath Termination Act, 1954

Before Termination	After Termination (1966-1980)
Fewer than 5 tribal members on public assistance.	28% of the Klamath people died by the age of 25, and 52% died by the age of 40.
Tribal member income was 93% of that earned by non-Indians.	40% of all deaths were alcohol-related.
Tribes provided jobs, per-capita payments from timber sales, medical services, land for homes, and revolving loans.	Infant mortality was 2.5 times the Oregon statewide average, and 70 percent of adults did not complete high school.
Klamath Tribes were one of the wealthiest tribes in the nation.	Tribal poverty levels were three times that of their non-Indian neighbors.

Klamath Reservation forest was selectively logged until termination when nearly 100,000 acres of untouched old-growth ponderosa pine remained.

Over 42 years of logging, the Klamath Tribes grossed a return of \$32.8 million. The revenues generated by the timber sales were shared with each Tribal member. These per capita payments from the sale of timber located on reservation lands totaled about \$800 a year by the 1950s, and constituted the sole source of income for many Tribal members.

In 1954, the United States Congress voted to terminate the government's recognition of the Klamath Tribes under the assumption that distribution of the Tribes' common assets would hasten assimilation of Indian people into mainstream culture. The decision forced the liquidation of the Tribes' assets and wealth and led to the purchase of the Reservation lands by the U.S. Forest Service and private investors. Termination was completed by April 17, 1961.

The termination legislation required the Klamath forestlands be sold in 5,000-acre increments, thus excluding Tribal members from ownership, and that the lands be managed on a sustained-yield basis, which resulted in depressed land values. Eventually, seven percent of the land was sold to private parties. The remainder was condemned



Harold Weaver

An example of an attempt north of Klamath Agency to restore historical conditions through prescribed fire by Harold Weaver in 1958.

and converted to become the Winema and Fremont National Forests. One private party, Crown-Zellerbach acquired a 90,000-acre parcel.

Termination devastated the Klamath Tribes' economy and culture. By the 1950s, the Klamath Tribes were one of the wealthiest Tribes in the United States. They owned and judiciously managed their forest for long-term yield. They were entirely self-sufficient — and the only Tribal group nationwide that paid for all the federal, state and private services used by their members. In 1957, there were only four Indians on welfare in the Klamath Basin (three on old age benefits and one on disability). After termination, poverty, high mortality rates, and division amongst Tribal members ensued.

Soon after termination in 1955, a Bureau of Indian Affairs regional forester (Earl Wilcox) noted that 4.7 billion board feet of saw logs had been removed from 538,000 acres of Tribal lands over the preceding 42 years. The most recent allowable annual cut was set at 80 million board feet. The forester concluded that “the forests of the Klamath Reservation can continue forever an annual cut of approximately 60 million board feet to a stabilized lumber industry in the Klamath Basin” and that “there are few forest properties in the western pine region so nearly ready to prove the practicability of good forest management.”

Though Congress restored federal recognition to the Klamath Tribes in 1986, the Tribes did not regain their traditional Reservation or a portion of the \$500 million in revenues generated to the federal and local governments from commercial activities on what were once Klamath lands. Yet with federal recognition, the Klamath Tribes have led efforts to restore themselves, such as reestablishing Tribal governance, restoring the natural and economic resources of the Klamath Basin, and re-acquiring their former Reservation lands (thus far, about 700 acres in scattered parcels have been re-acquired by the Tribes). As part of their Tribal restoration, the Klamath Tribes today are focusing upon economic self-sufficiency and cultural spaces through sustainable forest management and forestland reacquisition.

## Forest Management and Restoration

When Tribal recognition was restored in 1986, the Klamath Tribes developed a plan for economic self-sufficiency centered on the re-establishment of their ancestral homelands, specifically 692,000 forested acres managed since 1961 by the U.S. Forest Service. The Tribal vision states: “Higher wildlife and fish populations, larger areas with a higher proportion of older trees, plentiful and quality water, and restoration of mule deer, fish, and other habitat.... Through time, Tribal forests will again become the forests we remember before termination.” Accordingly, the *Klamath Reservation Forest Plan* seeks to move “as much of the ponderosa pine dominated forest toward structural complexity as rapidly as possible.”

Three predominant forested habitat types exist on the Klamath lands.

1. Ponderosa pine covers 55 percent of the Reservation. Forest scientists working with the Klamath Tribes estimate that 15 percent of the ponderosa pine stands retain the complexity of the pre-termination forest (such as the forest at Blue Jay Springs in the northeast portion of the Reservation), while some 62 percent of pine stands include remnant old trees that could anchor restoration efforts. However, 23 percent are simplified or degraded such that few attributes of the original complexity remain.

2. Mixed conifer occupies about 20 percent of the Reservation. Among the ponderosa pines in mixed conifer stands can be found any combination of sugar pines, lodgepole pines, white firs, incense cedars and Douglas fir, along with different shrubs such as bitterbrush, snowbrush and manzanita, that have flourished due to fire suppression efforts over the past century. About 25 percent of the mixed conifer acreage is considered to be a complex forest, while the remaining 75 percent has been simplified by logging.

3. Lodgepole pine covers 17 percent of the Reservation. The highly adaptable and hardy lodgepole pines have invaded ponderosa pine stands on the Klamath Reservation such that lodgepole biomass has increased almost nine-fold in the past century.

Interspersed within the Reservation forests are a number of vegetation types including hardwood patches, meadows, and riparian areas, which comprise about eight percent of the Klamath lands.

To return to a structurally complex forest, the Klamath Tribes embraced seven goals:

1. Restoration of forest (stand structure) complexity to the simplified forest left by commercial logging,

fire suppression and conventional management;

2. Reduce average stand densities to promote greater individual tree growth and shrub development;

3. Reduce overall fuel levels and continuity to reduce the potential for uncharacteristic stand-replacement fires;

4. Restore more natural fire regimes;

5. Increase habitat and carrying capacity for deer, elk and other wildlife and fish species;

6. Enhance spiritual and cultural values, given that the “remembered forest” of the pre-termination era is an integral part of Klamath Tribal identity; and,

7. Produce sustained monetary and subsistence income.

As stated in a 2000 Interforest, LLC, report, the principle goal of such management would be:

“...to move as much of the forest as possible toward a structurally complex ponderosa and mixed-conifer dominated forest as rapidly as possible ... Forest stand structure and complexity will be emphasized through a variety of restoration techniques including pre-commercial and commercial silvicultural treatments. Stand density, structure and wildlife management decisions will be made on a tree-by-tree, site-specific basis. Restoration to pre-1954 complexity and structure will guide all forest management activities as well as the management of wildlife habitat and populations, restoration of riparian habitats and the possible use of prescribed burning to restore a larger-than current role for fire.”

To achieve their forest restoration goals, the Klamath Tribes propose the following methods:

- Protect big trees to ensure the stability and gradual increase of the Reservation’s population of large, old “yellow bark” ponderosa pines. Using variable density prescriptions, the Klamath forest plan focuses management on the removal of the smaller, younger tree component of a timber stand. Forest thinning is then performed on irregular patterns to restore pine groves to the following characteristics: Average at least twelve trees greater than 21 inches in diameter and at least two trees greater than 32 inches in diameter (for mixed conifer areas, the goal is at least 15 trees of at least 21 inches in diameter and three trees exceeding 32 inches).<sup>1</sup>

<sup>1</sup> According to the [Plan for the Klamath Tribes’ Management of the Klamath Reservation Forest](#), the 622,000 acres of forest contains over 4,000,000 trees over 21 inches in diameter. Approximately two-thirds of these trees are in areas outside of “complex” forest areas, scattered through the forests.

- Set prescribed burns to restore natural fire regimes and native plant diversity.
- Thin overgrown stands through partial and selective cuts to recreate patches that contain trees of different ages and sizes. For instance, in mixed conifer areas, the Klamath Tribes plan to utilize aggressive commercial thinning, including felling large-diameter white firs, to protect large pines.
- Invigorate the shrub layer through thinning and mechanical cutting, and increase the food supply for deer and elk.

## Restoration of the Klamath Tribes' Land Base

Integral to the Klamath Tribes' community-based forestry initiative is the return of Reservation lands to the Tribes. Pursuant to the Treaty of 1864, the Klamath Tribes ceded over 20 million acres of their territory to the U.S. Government and 2.2 million acres was to become their reservation. However, due to survey errors, fraud and allotments, the Klamath Reservation was reduced to the 1.1 million acre territory that they retained until termination in 1954. Upon termination, the bulk of the Klamath Tribes' forestlands created the Fremont-Winema National Forest and the balance were sold to private owners. The Klamath Tribe is currently negotiating for the purchase of two parcels of land—the Mazama Tree Farm and the Crater Lake Mill Site—for their potential to invigorate the Tribes' and their neighbors' economy and implement their forest plan.

### Acquisition of the Mazama Tree Farm

During the past year, the Tribes have negotiated the purchase from Fidelity National of 90,637 acres of former reservation lands known as the Mazama Tree Farm, located in the northwest portion of the Reservation. The parcel is grossly overstocked with young trees as past management focused on commercial extraction and ignored non-commercial sized trees. Upon acquiring the Mazama land, the Klamath Tribes intend to actively manage it to create a more resilient and sustainable forest through thinning, while generating modest revenue.

If finalized and it becomes national legislation, the Klamath River Restoration Agreement will include \$21 million for the Tribes towards the purchase of Mazama parcel. The remaining balance of \$8 million will be raised through foundation grants and loans, and by revenues generated from harvesting activities on Tribal forests, such as new market tax credits and carbon sequestration sales.

### Crater Lake Mill Site

Also located on former reservation land, the Klamath Tribes hope to finalize the purchase of the 108-acre Crater Lake Mill Site for development as a "Green Energy Park." The Tribes have entered a purchase option agreement and need to raise another \$520,000 to complete the acquisition.

This parcel already has much of the needed infrastructure in place, including water, electricity, access to highways and railroad spurs, and cement slabs.

The Tribes propose to locate a biomass conversion facility at the Crater Lake Mill Site to transform woody materials off the forests (from thinning and clearing of underbrush) and possibly solid waste from nearby municipalities and counties. By using clean wood fuel from forest fuel reduction and forest restoration projects, saw mill residuals and other clean materials, the proposed project will result in healthier forests in the Klamath Reservation and will create much-needed jobs. Preliminary assumptions indicate that it would take approximately 50 acres/day of by-product to fuel a 10 MW plant (presuming 13 BDT/truck load and an average of 11 BDT/acre available as a byproduct of a harvest operations on the Klamath Reservation Forest). Capital costs for a new biomass power plant at a green field site run as high as \$2 to \$3 million per MW. New plants that make use of existing facilities (old mill yards, etc.) can cost as little as \$1 million per MW. Investors typically want to see a 15 percent or greater return on investment based upon the assumption of 100 percent equity funding. However, debt financing of up to 80 percent of facility costs is common practice.

The Klamath Tribes will also assess the feasibility of operating a small log saw mill, a small diameter post and pole business, a firewood sales business, and other related forestry businesses at this site, as well as nurseries and green houses to grow native plants, trees and vegetables by using the steam generated by the energy plant to heat the greenhouses.

The Klamath Tribes are currently in discussions with the U.S. Forest Service to create a National Pilot Project to showcase how the agency can support the Klamath Tribes to start and operate an appropriately sized biomass facility by: (a) entering a long-term contract to provide the feed stock, (b) allocating enough money to the particular Fremont-Winema Forest to undertake needed restoration activities, (c) mobilizing federal funds for Tribal assessment, planning and start-up activities; (d) providing the assistance of technical experts within the Forest Service; and, (e) enabling the Tribes to sell carbon credits for these forest restoration and biomass conversion activities on both Tribal and federal lands.

In addition to the planned biomass facility on the Crater Lake Mill Site, the Klamath Tribes are also considering a biomass facility at their casino, where a hotel and truck stop development are nearing groundbreaking. The energy company, PacifiCorp, recently notified the Tribes that a \$3 million investment for a new substation would be required before it would have sufficient capacity to meet the Tribes' new energy needs.

## Federal Legislation and the Klamath Tribes' Forestry Initiatives

Several federal forestry programs and proposals exist that would assist the Klamath Tribes greatly as they move toward restoration and management of their forestlands.

### **Tribal Forest Protection Act (TFPA)**

By owning land adjacent to lands managed by the U.S. Forest Service, the Klamath Tribes will be able to meet all the legal requirements to invoke the 2004 Tribal Forest Protection Act (TFPA), 25 USC 3101, and enter into agreements and contracts to treat federal lands at risk to a variety of disturbances. TFPA authorizes the Secretaries of Agriculture and Interior to give special consideration to Tribally-proposed projects on agency lands bordering or adjacent to Indian Trust Land. The TFPA was enacted in response to devastating fires that crossed from federal to Tribal lands in 2003.

Specifically, pursuant to TFPA, a Tribe may, upon request to the Secretary of Agriculture or Secretary of Interior, enter into an agreement to carry out a project to protect Indian forestland or rangeland (including a project to restore federal Forest Service or Bureau of Land Management land that borders or is adjacent to Indian forestland or rangeland). Any adjacent federal lands must pose a fire, disease, or other threat to Tribal forestland or rangeland or a Tribal community, or be in need of land restoration activities.

Should the Klamath Tribes succeed in acquiring the Mazama parcel, the Tribes will be ideally situated to initiate restoration work and collaborate in forest resource management in the Fremont-Winema National Forest due to the shared boundary that extends over 50 miles.

The Klamath Tribes and the Fremont-Winema National Forest have a Memorandum of Agreement in place that sets the framework to initiate discussions to allow the Tribes to do restoration work, explore the development of a biomass conversion facility to transform woody materials off the forest floor into energy, and explore the development of other businesses that would use these woody materials. However, any such initiative under the TFPA requires that the Klamath Tribes first acquire and own the Mazama parcel. In the meantime, the Klamath Tribes are actively pursuing restoration work in the National Forest through stewardship agreements and specific contracts.

### **Special National Demonstration Project and a Special Management Area Designation**

The Klamath Tribes and the Indian Dispute Resolution Service (IDRS) are working with the Forest Service and the Under Secretary of the Department of Agriculture to forge a closer working relationship. The Tribes are proposing the designation of a Special Management Area on the Fremont-Winema National Forest on land that falls within the Tribes' former reservation boundaries and that has special historical, cultural and spiritual significance to the Tribes.

The Tribes are also working to establish in this designated area a National Demonstration Project that will showcase how the Forest Service and the Tribes can collaboratively manage the forests while protecting and promoting the Tribes' treaty rights and implementing the Tribes' Forest Management Plan. The Fremont-Winema Forest Management Plan is due to be revised in 2009. The Tribes will be major player in this effort.

Working together with the Klamath Tribes, Congressman Wu included an amendment in the 2007 energy bill to launch a Tribal Biomass Pilot Project. It will provide up to \$2 million to a biomass project that is undertaken jointly by a Tribe and a technical training institution of higher learning. The Klamath Tribes plan a joint venture with the locally-based Oregon Institute of Technology in Klamath Falls.

### **Capacity-Building**

The Klamath Tribes presently lack a Forestry Department that is large enough to manage portions of the Fremont-Winema National Forest pursuant to either the Tribal Forest Protection Act or separate contracts with the U.S. Forest Service. The Tribes employ one person to cover all Tribal forestry activities. They have not had a Tribal forest crew in place for over 50 years, though some Tribal entrepreneurs have obtained Forest Service contracts in the past.

The Klamath River Restoration Agreement includes \$500,000 each year for the next ten years to enable the Klamath Tribes to develop the internal capacity to manage



The Wu Amendment to the 2007 Energy Bill

their own forestlands and public lands, as well as any affiliated businesses such as the proposed biomass facility. The Tribes estimate that this will be enough to maintain a staff that is capable of managing about 100,000 acres of forestland. The Tribes will also seek additional money from private foundations to complement the federal dollars and help sustain this program.

## The Klamath Tribes' Next Steps and Needs

The Klamath Tribes have embarked on an ambitious strategy to restore and regain their traditional forestlands. In order to succeed, the Tribes need an infusion of capital. The Klamath Tribes next steps and needs are summarized below:

- **Ongoing forest restoration work (thinning, reforestation).** A significant investment will be needed to restore the Klamath Reservation Forest. Funds will be needed to plan treatments and to develop environmental assessments, as well as funding to conduct the prescribed fire needed as part of the treatments. Fortunately, most of the road system is established and useable at only a modest cost. In total, these costs might run \$4-8 million dollars a year at the level of effort described above, starting at the higher cost and declining over time as experience is gained. Fire management costs (suppression, pre-suppression, and assistance on prescribed fire) would be additional expenses.
- **Mazama land acquisition.** Before the Klamath Tribes may utilize the Tribal Forest Protection Act to restore and manage lands located in the Winema-Fremont National Forest, the Tribes must acquire lands adjacent to the National Forest. For the Mazama parcel, the Klamath Tribes need to access a minimum of \$8 million. If the proposed Klamath River Restoration Agreement does not come to fruition, the Tribes will need up to \$29 million for acquisition of the 90,637 acres.
- **Crater Lake Mill Site land acquisition.** To initiate the proposed biomass facility and forest product businesses (i.e. woody biomass facility as renewable

energy source, manufacturing of wood pellets, wood chips, small diameter poles, and Tribally-operated nurseries to grow seedlings and native grasses and plants), the Klamath Tribes want to acquire this 108-acre site. They have entered into a purchase option agreement and require another \$520,000 to complete the acquisition.

- **Capacity-Building.** Each of the aforementioned forestry activities will require additional staff because the Klamath Tribes currently has a forestry staff of two people. Funding that provides flexibility to hire additional staff is therefore needed by the Tribes.

## Acknowledgements

Thank you to Jeff Mitchell, Will Hatcher, Stephen Haberfeld, and Sonia Tamez for generously sharing their knowledge and time with me.

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