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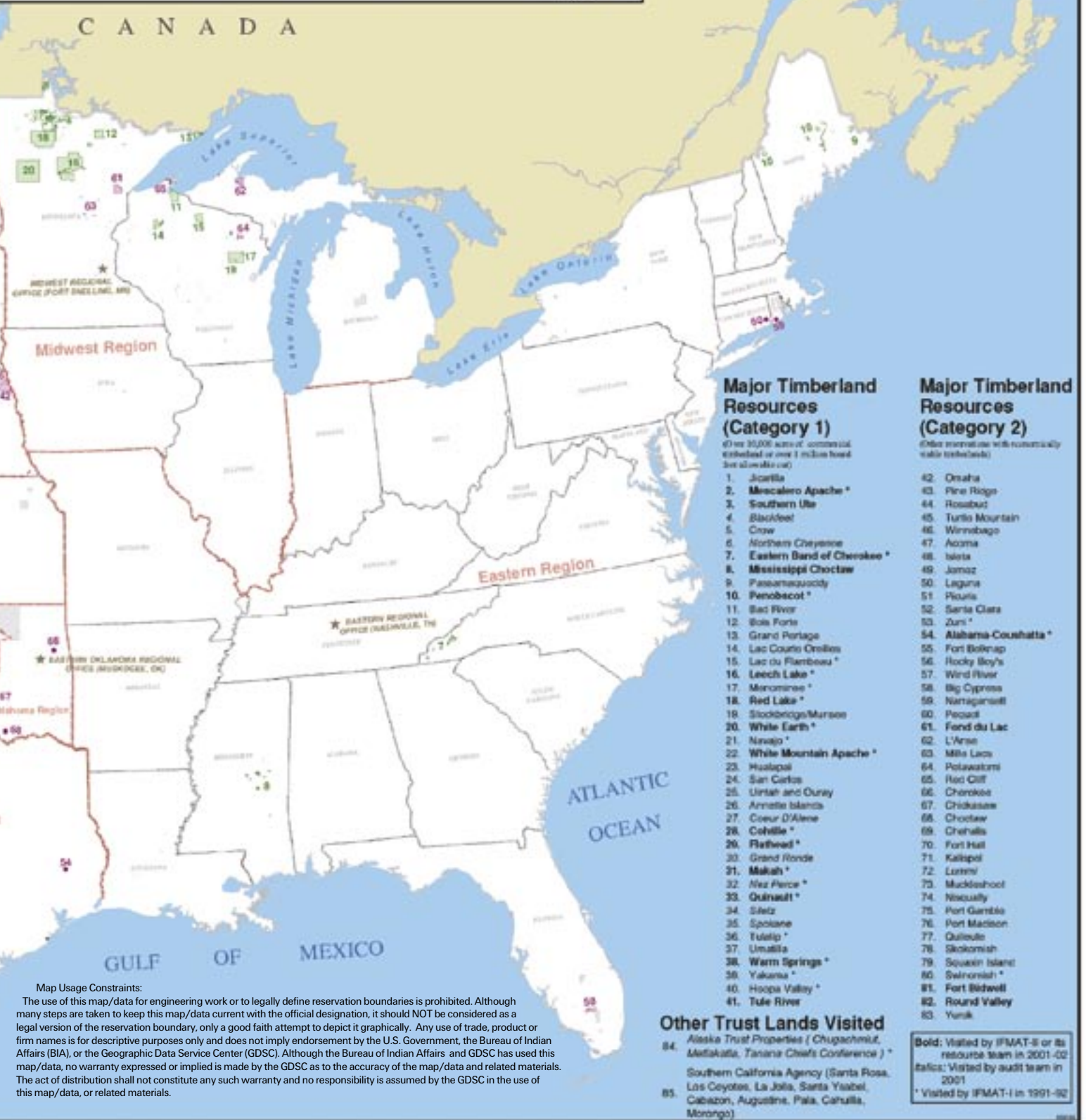
**Forestry In Indian Country:
Models of Sustainability
for our Nation's Forests?**



On the cover:

A view from the Colonel Bob Wilderness of a portion of the Quinault River watershed.

Ant Timberland Resources



In This ISSUE

by Jim Petersen

In this issue we write about forests and forestry in Indian Country. That we are revisiting tribal forests for the second time in just seven years is a measure of our abiding interest in doing everything we can to help raise public awareness of Indian forestry's spiritual and practical underpinnings. We among many hope our national forests will someday be as well managed as tribes manage their forests on shoe string budgets.

Our focus is forest sustainability, a quite subjective concept that turns on one's own perceptions. Public interest in sustainable forestry has led to development of close to 100 forest certification systems staffed by an army of consultants and auditors whose jobs are to independently certify that their clients' forests are being sustainably managed by the criteria set out in the chosen certification system.

Indian tribes are divided on the advisability of third party certification. A few like it but many don't, often because they feel no real obligation to satisfy prying eyes from a world they don't trust. But this much is true about America's timber landowning tribes: they faithfully meet every federal environmental law and regulation, including the costly requirements of the federal Endangered Species Act.

Equally important, they meet these requirements while also managing their forests for multiple outputs: timber, jobs, age class and species diversity and sacred sites; which leads to a question: How is it that tribes can accomplish so much while the same requirements

How is it that Colville tribal foresters are able to harvest 2.8 times more timber from a commercial forest land base that is 22% smaller than the commercial forest land base the Forest Service manages on the Colville National Forest, a land base where growth exceeds harvest by a factor of ten? And how do they do this with about one-third of the per-acre funding the Colville National Forest receives, while also abiding by or exceeding the same federally imposed environmental standards? You'll find the answers embedded in this report. But keep this in mind as you study this report: not even the Forest Service argued with the fact that the Colville tribe's more actively managed forest is more resilient and more biologically diverse than the stagnating Colville National Forest.

Our partner in this report is the Intertribal Timber Council, a 30-year-old association comprised of tribal governments that work collaboratively to improve the management quality in Indian forests coast to coast. Tribes own and manage 7.7 million acres of timberland and 10.2 million acres of woodlands in these United States.

Despite clearly defined trust responsibilities spelled out in a voluminous body of law, and despite court decisions and treaties that further detail federal obligations, the relationship between timber-owning tribes and our federal government has only recently begun to meet tribal expectations. We credit tribal patience and persistence, a recent congressional awakening and the quiet

Larry Workman

Sunrise from a fireweed filled clear-cut on Lone Mountain in the Quinault Reservation.

stymie the Forest Service and the Bureau of Land Management?

In search of answers, the House Subcommittee on Forests and Forest Health in August toured northeast Washington's Colville National Forest and neighboring tribal forestlands owned by the Confederated Tribes of the Colville Reservation. Only a few very basic statistics are needed to quantify the contrast between what tribes are able to do and what the Forest Service is able to do:

	Suitable harvest acres	Annual harvest
Colville NF	771,248	29.1 mbf
Colville Tribal	603,400	81.0 mbf

dedication of professionals in the Bureau of Indian Affairs Forestry Division and Tribal natural resource departments, working in cooperation with private industry, academia and public resource management agencies.

We are deeply indebted to our 22 authors for writing much of this report without compensation; among them four PhD forest scientists with global reputations: John Gordon, Jerry Franklin, John Sessions and K. Norman Johnson, plus nine tribal leaders whose personal and professional insights add significantly to the depth and quality of this report. Also: Catherine Mater, President, Mater Engineering and a Senior Fellow of the Pinchot Institute for Conservation; Dave Skinner, a rising star among environmental writers and Larry Mason, a friend of nearly 20 years, who was a logger on the Olympic Peninsula when we first met at the Salmon Derby in Forks. Now he is Project Coordinator for the Rural Technology Initiative housed in the University of Washington's College of Forest Resources.

At 84 pages, this is the largest *Evergreen* issue in our 20-year history. Given its size, we can't possibly summarize each article as is our long-standing custom, but we do want to offer some food for thought we hope you will consider as you study this report. In his recent book, "1491," Charles Mann explores the America that was before it was "discovered" by Columbus. Most notably, he documents a truth that scholars have only recently accorded much more than rumor status: and the truth is that the American landscape that European settlers encountered was a product of

thousands of years of skilled management by millions of Indians who lived in culturally advanced agrarian societies, and who actively intervened in natural processes to alter the environment, making the land and its resources more productive and biologically diverse. More

Although they would never say so publicly, we suspect many of our Indian friends are very upset about what passes for management in federal forests that were once home to many tribes. We also know many non-Indians living in the West today who think these forests ought to be returned to their original owners before what's left of them is destroyed by so-called environmental groups and their lawyers—adding to the quite long list of reasons why we believe Congress ought to give the Forest Service and the Bureau of Land Management the same statutory and regulatory latitude that tribes enjoy in their more actively managed forests as a result of their treaty and trust relationships with the federal government.

The list of those we need to thank for their behind the scenes help with this year long project is much too long to present in its entirety but we would be remiss if we did not thank Quinault Technical Advisor Dr. Gary Morishima for his wisdom, leadership and tireless dedication to this project; Don Motanic, Intertribal Timber Council technical specialist, who was our link to our tribal authors; ITC's Operations Committee, for reviewing every article for content, accuracy and integrity; Larry Workman of the Quinault Indian Nation for his fine photography; and Sarah Whalen of the Meridian Group, who was our interface with the U.S. Forest Service, which provided major funding for this project.

We hope you enjoy reading this issue as much as we enjoyed its development.

Onward we go,

Jim Petersen, Publisher
Evergreen Magazine



Jim Petersen

Looking north over the Flathead Valley from the Salish-Kootenai tribal forest south of Ronan. This impressive forest is perhaps the best managed, most productive forest in Montana.

to the point, Indians did not live passively, "at one with nature," as some writers have suggested. Quite the contrary, footprints of human intervention can be seen in archeological evidence unearthed from every corner of the nation.

THE ECOLOGICAL CONDITION OF INDIAN FORESTS: THE IFMAT VIEW

by
*John Gordon
Gary Morishima
Jerry Franklin
K. Norman Johnson*

Forests affect the economic, cultural, and spiritual well being of tribal communities in many ways. In addition to being a source of income and employment, the forests provide foods, medicines, recreation opportunities, and materials for commerce, shelter, heat, clothing, transportation, and artistic expression. The forests are also vital for continuity of tribal cultural identity, being places where communal ceremonies are held and where individuals seek spiritual awakening and renewal. These values are largely place-oriented. Indian tribes must live with the land and manage it for future generations. This dependence between tribes and their forests motivates tribes to pay close attention to resource management practices both on and off their reservation lands; they understand that the health of their forests and resources like water, fish, and wildlife depend on interactions between natural forces which ignore man-imposed property boundaries. Because of this integrated way of experiencing forests, tribal forests and forestry are of special interest and value to all Americans both as leading examples of new approaches to solving forest problems and as potential models for sustainable, community-driven forest management. Here, we attempt an overview of the ecological condition of the many and diverse Indian trust forests in the United States, and try to outline some of the major strengths and



Jerry Franklin

Old-growth Ponderosa pine on the Navajo Indian Reservation (Arizona); many tribes have retained old-growth trees as part of their forest restoration strategy.

challenges facing Indian forest managers from an ecological perspective. Obviously, in a short article we can only scratch the surface of a large, complex and rich story.

We have relied on the data, observations and conclusions of the two Indian Forest Management Assessment Team

reports (IFMAT I, 1993, and IFMAT II, 2003). All of us, except Gary Morishima, were members of both IFMATs, and Gary was instrumental in overseeing and reviewing the reports on behalf of their sponsor, the Intertribal Timber Council (ITC). The two reports give us a great advantage: answers to the same ecological (and other) questions about the same forests, mostly by the same people, at two times in history separated by ten years. Ten years is a short enough time so the same questions are relevant and the same people can be involved in answering them, but long enough to see changes and trends in forests. We have thus drawn most heavily on the comparisons available from IFMAT II, particularly in the section "Survey of Forestland Conditions." But we have also drawn material from most of the other sections of the report.

Ecological Approaches to Management

On the whole, the ecological condition and management of Indian forests is different and better than it was ten years

ago, largely through the efforts of dedicated tribal and BIA resource managers and staff. Silvicultural practices have improved and been focused toward fire protection, partial cutting and other integrated management goals (e.g. habitat maintenance) on many reservations. Structural

complexity (creating a greater array of size classes, retention of green trees and, standing and down dead trees) after harvest and structural diversity across landscapes (creating streamside buffers, leaving hardwood pockets, juxtaposing different aged stands) are innovations designed to integrate commercial and environmental objectives. These increasingly complex ecological approaches to management are a reflection of tribal values and foresight implemented by the competence and dedication of tribal and BIA managers.

Reservations vary in their integration of wildlife, range, water and timber values. In some locations communication among the resource professionals is still limited, but on the whole is improving.

However, despite better silviculture, conditions continue to deteriorate on many Indian forests. Numerous new challenges (large scale fires and pest outbreaks, invasive exotic

plants) together with the existing backlog of threats to forest health, most notably overly dense stands resulting from fire control, combine to make complacency about the future of Indian forests inappropriate.

Forest Health

The Intermountain and Southwest regions face the most serious and urgent current problems. Bark beetle epidemics, expansion of the spruce budworm and other defoliating insects, and heavy infestations of dwarf mistletoe singly or, more often, in combination threaten forests on reservations in both regions. However, Indian forests in eastern North America face their share of health problems. Oak wilt, beech bark disease, hemlock wooly adelgid (introduced pests) and the impacts of air pollutants take an unknown but probably large toll on growth of eastern Indian forests. The consequences of introduced pests that have passed their peak of activity (e.g.

gypsy moth, chestnut blight, Dutch elm disease) in many areas have left a legacy of poorly or understocked stands, and white pine blister rust is endemic in one of the most commercially and ecologically valuable species, eastern white pine.

New threats loom. For example, sudden oak death, caused by a recently identified *Phytophthora* fungus, is devastating woodlands in California and Oregon, and has been found in the eastern United States. The rate of transfer of invasive species increases roughly with the rate of increase in commerce and travel among countries and continents. Thus, it can be expected that new threats will continue to appear. This argues for a much greater effort to create diverse and healthy forests, since diverse and healthy forests are most resilient in the face of new pests.

The challenges of forest insects, pests, and disease are likely to increase. Current problems are larger than the budgets available to deal with them,



Jerry Franklin

Development of dense populations of shade-tolerant trees is a common problem, particularly on moist, mixed-conifer habitats. Many restoration programs on tribal lands are designed to eliminate these fuel accumulations, so as to eliminate the potential for uncharacteristic stand-replacement fires and to protect residual old-growth trees.



Jerry Franklin

Flathead Indian Reservation (Montana) has had an aggressive landscape-level program to reduce fuel hazards and restore historic conditions. This is a broad view of a treated landscape strip.

even when the ecological and silvicultural path to improvement is clear. Also, the communication of research derived information is too slow in some places, although other Indian forest managers were satisfied with their access to new information. In particular, smaller tribes, unable to afford the degree of disciplinary specialization that larger tribes have, felt the need for better information and technical support for their field practitioners.

Forest Fire

Fire prone forests are at the same time a forest health, a social and an economic problem. Most forests are adapted over evolutionary time to a rough but fairly regular frequency of forest fire. If this frequency is changed, the forests change. Over the drier parts of Indian country (and most of the rest of the dry West), this frequency has been greatly reduced by forest fire prevention and suppression. Forests became denser, with more small trees per unit area, and, in pine types, shade tolerant firs came in densely under the larger, older pines on some sites, while on others the density of young pines increased. Wildlife dependent on shrubs and other plants in openings in the less dense forest lost habitat and declined, decreasing opportunities for subsistence hunting by tribal members. At the same time, fire risk to larger timber, old growth ecological values, and dwellings increased dramatically.

The answer is to reduce the amount of fuel, particularly "ladder fuel" (shrubs and trees that can carry fire from the ground to the crowns of the tallest trees), over vast areas of forest. Arguably, tribes have done a better job

of partial cutting to reduce fuels than most other land managers, in terms of quality of work and percentage of affected area treated. IFMAT II found that prescriptions and implementation of on the ground fuel reduction programs was good to excellent. Also, prescribed burning, to move toward earlier fire conditions is being better accepted by tribal members. Indeed, this is a good example of the difference between living with the results of management, as Indians do, instead of viewing it from afar and theoretically. If tribes accept prescribed fire to improve the condition of their forests, they get to breathe the smoke.

However, despite much good work, a large area remains to be treated on most reservations. Dense stands increasingly

invite insect attack as they age so the problem is urgent. An even thornier problem is the risk to Indian lands that results from untreated adjacent forests, many of these in federal hands. These lands also need landscape level fuel reduction, but as of the time of the IFMAT II assessment, little fuel treatment was happening on them. Some progress is now contemplated as tribes arrange for stewardship responsibility for federal forests adjacent to reservations. Under this arrangement, tribes will contract with federal agencies to do the fuel reduction.

One of the barriers to better fuel reduction programs is the poor market in most places for the small and low quality wood removed. This problem is becoming general in the United States as wood processing capacity decreases in many localities. Better technology and better markets for small wood may be a cause that could unite tribes

and other forest landowners of all kinds.

Wildlife

Although there is a wide range of techniques and competencies with which tribes manage wildlife, some common factors contribute to the condition of forest wildlife on Indian lands. Tribes with large forested areas are better able to provide funding and expertise for wildlife management than smaller tribes. Tribes that met the certification standards tested in IFMAT II were more likely to have good wildlife management than those that didn't rank as well with respect to certification standards. And, predictably, tribes that actually employ a wildlife biologist do better than those that don't. Also, the



Jerry Franklin

Treated stand in an urban fringe within the Mescalero Apache Indian Reservation, New Mexico.

commonality of problems tribes share with other landowners seems to provide rich opportunities for collaborative management. In particular, the maintenance of threatened and endangered species (without foregoing other tribal values), integrated inventories and habitat programs for both game and non-game species, and cooperative research appear to be areas to explore.

Two overarching issues are 1) conflicts between wildlife, fisheries and forestry staff in deciding wildlife and fish needs when planning and executing timber harvests and 2) tribal sovereignty in relation to cooperative programs with other landowners. The first issue is classic and surely not restricted to Indian forests and managers. Indeed, the emphasis on integrated resource management plans in Indian country has made them leaders in resolving this long standing conflict, but it is still a serious threat to ecologically-based management of Indian forests. With respect to sovereignty, tribal managers have, in some places, faced restrictions on tribal management options dictated by the need to compensate for environmental deterioration on other ownerships, as when remaining habitat for a rare species remains on Indian land. This is not only unfair, it results in poor landscape level management for all.

Overview

The ecological condition of Indian forests is improving and so is the quality of their management. Tribal goals play a larger part than previously in determining the direction of forest management, and this has resulted in a more ecologically-based approach to both the commercial and environmental facets of Indian resource management. Serious problems remain in forest health and related issues



Jerry Franklin

Tribal representatives discuss forest management with members of the original IFMAT team; most tribes are assuming responsibility for management of their own forestlands from the Bureau of Indian Affairs.

such as the integration of wildlife and forestry management and the development of ways to market the small wood harvested during fuel reduction operations. Limited and fragmented funding, not scaled to the value of the forest resource, bears a large portion of the blame for the lack of more rapid improvement in forest health, and the dire remaining risk from insects and disease. The likelihood of the import of ever more exotic pests and the fact of increased insect, disease and fire risk from adjacent forests make accelerated action even more urgent. Problems with underfunding and understaffing of Indian forestry were prominently noted in both IFMAT reports and continue to challenge the capacity to remedy these problems.

Tribal and BIA managers have been innovative and leaders in crafting forestry to fit specific tribal, commercial and ecological goals. While severely curtailing the capacity of tribes to address their forest management issues, tight budgets have forced Indian tribes to seek innova-

tive and cost-efficient means to meet their needs. At numerous locations around the country, tribes are working to integrate their programs with those conducted by public agencies and private industry to work on a landscape scale to meet threats wildfire and disease infestation. Tribes are learning to use grants, tax credits, cost offsets, data maintained by other entities, and market-driven enterprises to meet their objectives for forest management. Both IFMAT assessments have concluded that other forest managers and publics can learn much from the way forests are managed on reservations. Because the cultural identity and continuity of tribal communities are so dependent on forests, tribal governments have a profound sense of stewardship for the land and its resources.

At many locations, this world view has placed Indian tribes in a unique position where they can serve as catalysts that can forge disparate interests into collaborative partnerships to address forest management issues. Throughout the country, the involvement of Indian tribes is proving to be the key to enabling people to overcome differences and work in common purpose. In many respects, the fate of our nation's forestlands will be driven by the capacity to take action on a landscape scale, both for the sake of efficiency and effectiveness. Indian tribes are beginning to play prominent roles in helping to shape the future of forestry for the benefit of tribal and non-tribal communities.

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THE MONTREAL PROCESS CRITERIA AND INDICATORS AND TRIBAL VIEWS ON FOREST HEALTH AND SUSTAINABILITY: IS THERE A MATCH?

by

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Over the last few years, there has been much discussion of the use of the Montreal Process Criteria and Indicators (C&Is) as a framework to define and report operational performance in forest health and sustainability on public and private forestlands. Indian Nations have been part of those discussions, but identifying a 'collective voice' on tribal views of forest health and sustainability remains difficult. Equally difficult is correlating forest health views of public and private forestland managers to tribal views.

Perhaps we start our analyses by first stating the obvious: **Indian Nations are truly unique forestland owners.** They differ from their forestland owner counterparts in fundamental ways:

■ **Public forestland owners** work within strong legal frameworks to manage their forests for the general public interest and use. The people and communities that public forestlands serve are external in nature: they do not live within the forest, they may only infrequently visit the forest, and many may even feel disenfranchised from the forest that surrounds them (as is evident with current wildcrafting practices where transient domestic and international populations may be the largest recipients of non-timber forest product offerings such as foods, florals, botanicals, medicinals, decoratives, etc.).

■ **Private forest landowners** fall under yet a different category. Private industrial landowners do not serve a public at large, but rather answer to shareholders with land management priority often focused on maximizing return on investment. Private non-industrial forestland owners (NIPFs) are different from their industrial counterparts: they view income generation only on a sporadic basis; they do not typically live off the land; less than 10% have written management plans in place to help

guide the management of the land; almost 30% of them have owned their forestland for less than 30 years, and over 10% will sell or transfer their forest land to other hands in the next five years.

■ **Indian Nations** operate under different mandates as forestland owners. The people and communities that Indian forests serve are internal: tribes live with the consequences of management decisions that affect their forests everyday in countless ways; the forest has become an integral part of their physical and spiritual life; has been so for many generations and will remain so. And income generation is important, but is only one of many values associated with tribal forest ownership.

With these differences as a backdrop, we undertake the task of evaluating the degree to which the Montreal C&Is reflect tribal forest health and sustainability views by asking four questions:

- 1) Have tribal nations recently participated in an independent evaluation of their forest management practices based on the application of established regional/national/international standards and criteria for forest health and sustainability?
- 2) If so, how did tribal nations collectively fare in the evaluation? Could their strengths and weaknesses evaluated against these criteria relate to their views regarding forest health and sustainability?
- 3) How relevant and important to tribal values were the criteria used in the independent evaluation?
- 4) How might the C&Is correlate to those criteria deemed by tribes to be relevant and important in representing their views concerning forest health and sustainability?

A Nationwide Pre-Assessment Evaluation

In July 2000, Washington DC-based Pinchot Institute for Conservation approached the Intertribal Timber Council (ITC) with a proposal to employ the Sustainable Forestry Initiative (SFI) and the Forest Stewardship Council (FSC) certification pre-assessments as part of the independent in-field audit component for the second independent assessment of the status of Indian forests and forestry required under the National Indian Forest Resource Management Act (NIFRMA). The project would also evaluate whether forest management practices of Indian nations might meet certification requirements, and would allow tribes a unique opportunity to evaluate the criteria used in the SFI and FSC systems with respect to relevance and importance to tribal forest health and sustainability values. Each tribe would be independently evaluated by both SFI and FSC auditors, and would receive separate pre-assessment reports. The pre-assessment reports would also be submitted to the second Indian Forest Management Assessment Team (IFMAT-II) for use in completing its report to Congress and the Bureau of Indian Affairs (BIA). The proposal also included provisions for assisting interested Indian nations to pursue full certification assessments and a reverse assessment regarding the suitability of the selected certification system for Indian forestry. The request was approved by ITC and funding was secured from The Ford and Surdna Foundations to undertake the project in 2001. Thirty (30) Indian Nations dispersed throughout the US participated in the project effort representing over four million acres of working forests and over a half a billion board feet of annually-harvested wood resource (see

Map below). ITC selected the team of Interforest and Arthur Anderson (Connecticut and Washington states, respectively) to undertake the SFI pre-assessment, and Scientific Certification Systems (SCS) to undertake the FSC pre-assessment.

States and Participating Tribes



Participating Tribes: Choctaw,

Fort Bidwell, Penobscot, Fond du Lac, Mescalero, Metlakatla, Spokane, Quinault, Flathead, Cherokee, Alabama-Coushatta, Round Valley, Red Lake, White Mountain, Southern Ute, Tanana Chiefs, Colville, Coeur d'Alene, Grand Ronde, Northern Cheyenne, Chucachmiut, Tule River, White Earth, Blackfeet, Lummi, Siletz, Makah, Nez Perce, Leech Lake and Warm Springs.

The pre-assessments were conducted over a twelve-month period, with the following results:

- SFI auditors determined that no tribes were ready to proceed with full SFI audits due to non-conformances primarily relating to written documentation relative to forest management planning;
- FSC auditors determined that 14 of the 30 tribes were either well-positioned or very close to being well-positioned to achieve conditional FSC certification should a full audit occur. These 14 tribes represented over 75% of the total forestland acres of all 30 participating tribes.

The approaches used by SFI and FSC auditors reflected differences in the framework and criteria employed to evaluate sustainability:

- the SFI system purported that good documentation was essential to achieving consistent practices over time by providing less variability of expected performance and deliverables if and/or when personnel changes occur, and therefore should be a 'first cut' assessment criteria before in-field performance is evaluated;

- the FSC system placed maximum value on evaluation of field performance first, but allowed for continuous improvement via contract conditions that would mandate improvement (in documentation and/or field performance) within a short period of time.

Both systems identified key areas where improvements in performance would be required in order to achieve certification consideration.

With the FSC pre-assessments being based on more field evaluations (vs documents review by SFI auditors), it was interesting to note that over 50% of all tribes were found to be

"above" certification standards in eleven key areas: pest pathogen management strategies; harvest/utilization in association with waste avoidance and product marketing; forest structure, a full range of seral stages and other vegetative species associated with natural forests in self-sustaining proportions within working forests; ecological productivity, the ability of the forest to sustain key biological components and ecological functions though time; fish/wildlife management, including habitat protection in association with timber management; watercourse management including tribal policies and programs for protecting bio-physical functions in rivers and streams impacted by harvesting and road building; pesticide use, specifically programs for protecting public health and biological diversity; community/public, specifically, how tribal timberlands contribute to economic and social well-being; public use management, facilitating other non-timber uses of tribal timberlands and resolving conflicts where they occur; employee/contractor, the welfare of employees of timber management firms working on tribal lands; and legal compliance with all relevant laws, regulations, treaties and conventions.

The FSC auditors, however, also found that over 50% of all tribes were determined to be either "marginal" or "below" certification standards in seven key areas: harvest regulation, the regulation of harvest and forest struc-

ture, especially age-class and geographic distribution; stocking/growth, are timber stands in a well-stocked, productive condition; forest access, is there an adequate, well designed, well maintained road system; management planning/information base, is there a solid, long term information base including environmental assessments and monitoring; ecosystem reserve, are ecologically significant areas identified, mapped and protected; financial stability in relation to compliance with relevant laws, regulations, treaties and conventions; investment capital and personnel, is the tribe investing in both infrastructure and people needed to sustain its forestry operation.

The second IFMAT report evaluated Indian forestry ten years after completion of the first independent assessment. Both IFMAT reviews found that per acre funding available for management of Indian forests is substantially below that provided for federal public land managers and private industry. Given fiscal limitations, we conjectured that those criteria that were met by the tribes might be deemed to be more relevant and important to tribal priorities on forest health and sustainability. But we also acknowledge that it may be incorrect to assume that criteria where tribes were marginal or fell below certification status were less important to them. The pre-assessment phase of this project did not address this question. However, the next project phase (full FSC assessment) specifically did.

The Next Step: A "Reverse Assessment" Phase

Of the 14 tribes that were well positioned to proceed with full FSC certification assessment, seven tribes chose to do so: Confederated Tribes of Warm Springs, Nez Perce Tribe, Red Lake Band of Chippewa Indians, Confederated Salish & Kootenai Tribes of the Flathead Reservation, Spokane Indian Reservation, Mescalero Apache Tribe, and the White Mountain Apache Tribe. The full assessments for the Warm Springs and White Mountain tribes were funded directly by the tribes, while assessments for the remaining five tribes were funded through the Pinchot Institute, and completed in 2003. While specific results of the full assessments remain confidential to the tribes, the project incorporated a valuable 'reverse

assessment' component that allowed the Institute to better understand the question of criteria relevance and importance to tribal views on forest health and sustainability.

For this phase of the project, each tribe was asked to rank over 50 FSC certification criteria in several key areas. Along with comprehensiveness of standards, tribes also provided rankings on standards for measuring a) protection of biological resources; b) monitoring performance; c) socio-economic performance; d) continuous improvement; e) clear management objectives; and f) staff training and performance. Tribes were asked to rank a series of statements regarding importance and relevance of criteria to their tribal forest management objectives. The rankings ranged from one to five, with one designating criteria as irrelevant/unimportant to tribal views on forest health and sustainability; three designating criteria as only somewhat relevant/important; and five designating criteria as extremely relevant/important. Averaged tribal rankings for all FSC criteria fell between 2.8 to 4.8. For this assessment, areas were determined to be "highly relevant/important" if a combined tribal averaged ranking of 4.5 or greater was achieved. Areas designated as "relevant" received a combined tribal averaged ranking of 3.8 to 4.4, and averaged rankings below 3.8 were designated "less relevant/important" to tribes. Summarizing, the reverse assessment results indicate the following (see Table 4, page 14):

1. Tribes appeared to value most those standards and criteria that dealt with protecting the rights of indigenous people, protecting areas of cultural significance, protecting water quality, and maintaining a balance between social, ecological, and economic values.

2. Tribes appeared to assign less value to those criteria that focused on

- economic benefits derived from the forest;
- efficient forest product utilization; maintaining forest composition and diversity at a regional level;
- evaluating forest conversion and plantation issues;
- evaluating practices in protecting exotic and local species;
- evaluating practices in protecting genetic diversity;

- evaluating practices in pesticide use; regularly assessing staff performance; and
- establishing credibility with the timber industry, legislators, environmental organizations, and the public at large.

3. When examining how often tribes were in consensus with each other with respect to criterion ranking on relevance and importance (i.e. where rankings where either the same from tribe to tribe or differed by no more than one point), tribes appeared to agree with each other on over 50% of the FSC criteria they ranked:

- The highest areas of consensus were in those criteria deemed to be "highly relevant and important" (all tribes in consensus).
- For those criteria determined to be "relevant and important," tribes were in consensus on ranking almost 60% of the time.
- In contrast, tribes were far less in agreement on those criteria determined to be "less relevant".. Consensus was evident in only 20% of the criteria assessed.

These ranking differences illustrate the difficulty in capturing a unified tribal voice on forest health and sustainability save for criteria identified as highly relevant and important. Tribes appeared most in consensus with criteria focused on achieving a balance between social, ecological, and economic concerns; management plan performance monitoring; and assessing socio-economic performance. Tribes agreed with each other's rankings only 50% of the time with criteria dealing with clear management objectives, and protection of biological resources. They were least in agreement with each other on criteria focused on staff training and performance, and establishing credibility with targeted audiences.

The Final Step: Correlation to The Montreal Process Criteria and Indicators (C&I).

The Montreal Process began as an initiative of the Government of Canada, which hosted a meeting in Montreal in September 1993. The goal of the Montreal meeting was to develop a scientifically rigorous set of criteria and

indicators that could be used to measure forest management. After several months of informal meetings (Kuala Lumpur in May 1994, Geneva in June 1994, and New Delhi in July 1994), the process was formalized and renamed the Working Group on Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests. Work to further develop the draft Montreal C&Is continued during these meetings, which involved a core group of government representatives from Australia, Canada, Chile, China, Japan, Korea, New Zealand, the Russian Federation, and the United States. The final meeting of the Working Group took place in Santiago, Chile, in February 1995. Participants produced the final version of the seven criteria and associated quantitative and qualitative indicators that have become collectively known as the Montreal C&Is.

The first six (6) criteria and indicators characterize the conservation and sustainable management of temperate and boreal forests. They relate specifically to forest conditions, attributes or functions, and to the values or benefits associated with the environment and socio-economic goods and services that forests provide. Criterion 7 and associated indicators relate to the overall policy framework of a country that can facilitate the conservation and sustainable management of forests. They include broader societal conditions and processes often external to the forest itself but which support efforts to conserve, maintain or enhance one or more of the conditions, attributes, functions and benefits captured in the first six criteria.

Correlating the C&Is to the FSC criteria deemed to be of greatest relevance and importance to tribal views on forest health and sustainability should not be viewed as an exact science. The functions of the two systems are entirely different. While the FSC criteria are very specific to operational function, the C&Is are designed to provide the necessary framework to define specific operational functions. With this as a caution, correlating the C&Is to the tribal rankings from the FSC reverse assessment results produces interesting results:

1) Of the 67 indicators included in the Montreal Process, it appears that over

60% of the C&Is reflect many of the tribal views determined in the FSC reverse assessments to be relevant and important to forest health and sustainability. As such, the Montreal Process would likely be viewed as a helpful tool to continue to shape operational and monitoring functions around forest management objectives and performance on tribal forestlands in the US.

2) Of the 67 C&Is, seventeen (17) indicators, or 25%, were determined to match criteria ranked by tribes as highly relevant to tribal views during the FSC reverse assessment, twenty-six (26) indicators or 39% were determined to be relevant, seventeen (17) indicators, or 25%, were determined to be less relevant to tribal views, and seven (7) indicators were determined to be not applicable to current tribal forest management practices (however, many of these may present special opportunities for tribes to consider).

Table 3: Relevance/Importance of FSC Criteria to Tribal Views on Forest Health

Ranking: **I** = irrelevant/unimportant **5** = extremely relevant/important

ISSUE	Tribal consensus (✓)		
	HR	R	LR
Social, Economic and Ecological Areas			
Balance between social, economic & ecological values	✓		
Social concern		✓	
Economic concerns		✓	
Ecological concerns		○	
Protection of Biological Resources			
Sustainable harvest levels		✓	
Water quality		✓	
Endangered species		✓	
Natural forest regeneration		✓	
Site damage		✓	
Wildlife habitat		○	
Protected areas		○	
Harvest residual (stump height, etc.)			✓
Forest composition at regional level			○
Exotic and local species			○
Genetic diversity			○
Pesticide use			○
Forest conversion & plantations			○
Monitor Performance			
Maintaining and updating management plans		✓	
Collecting field data		✓	
Interviewing key personnel		✓	
Monitoring records for compliance		✓	
Conducting independent investigations		✓	
Continuous Improvement			
Monitoring improved practices over time		○	
Staff Training & Performance			
Staff being informed of responsibilities		○	
Staff being adequately trained		○	
Staff being regularly assessed			○

HR = highly relevant (with average ranking of 4.5 or above)

R = relevant (with average ranking of 3.8 to 4.4)

LR = less relevant (with average ranking of less than 3.8)

ISSUE	Tribal consensus (✓)		
	HR	R	LR
Clear Management Objectives			
Protecting water bodies	✓		
Monitoring species of concern		✓	
Minimizing visual impacts		✓	
Monitoring growth and yield		✓	
Minimizing site damage		○	
Considering public input in management decisions		✓	
Maintaining habitat at landscape level		○	
Identifying and establishing protected areas		○	
Maintaining up-to-date inventory		○	
Monitoring habitat diversity at stand level		○	
Maintaining diversity in forest composition and structure			○
Making economic decisions for the long-term			✓
Providing economic benefits to communities near the forest			✓
Requiring efficient forest product utilization			○
Establishing credibility with different audiences			
Forest landowners		○	
Scientific community		✓	
Timber industry			○
Legislators			○
Public at large			○
Environmental organizations			○
Socio-Economic Performance			
Protecting rights of indigenous people	✓		
Protecting areas of cultural significance	✓		
Managing for non-timber values		✓	
Demonstrating long-term forest use rights		✓	
Generating economic opportunity for the local community		○	

Criterion 1: Conservation of biological diversity: includes elements of the diversity of ecosystems, diversity between species, and genetic diversity in species.

INDICATORS	HR	R	LR
ECOSYSTEM DIVERSITY:	forest type relative to forest area	✓	
	forest type by age or successional stage	✓	
	forest type in protected areas (IUCN)	✓	
	forest type in protected areas (age/successional stage)	✓	
	fragmentation of forest types		✓
SPECIES DIVERSITY:	forest dependent specie	✓	
	status or rare, threatened, endangered, extinct species	✓	
GENETIC DIVERSITY:	forest dependent species that have diminished over time		✓
	monitoring of species from diverse habitats accross the range		✓

Criterion 2: Maintenance of productive capacity of forest ecosystems.

INDICATORS	HR	R	LR
area of forestland for timber production			✓
total growing stock; merchantable and non-merchantable for timber production			✓
area of growing stock of plantations of native and exotic species			✓
annual removal matched to sustainability criteria		✓	
annual removal of non-timber forest products matched to sustainability criteria		✓	

Specific criterion analyses shows the following:

HR= highly relevant
R= relevant;
LR= less relevant

Criterion 3: Maintenance of forest ecosystem health and vitality.

INDICATORS		HR	R	LR
	area of forest affected by insect, disease, competition from exotics, fire, flooding, etc.		✓	
	area of forest subjected to levels of air pollutants or ultraviolet B that may cause negative impacts to forest			NA
	area of forest with diminished biological components indicative of changes of ecological changes (soil nutrient cycling, seed dispersion)		✓	

Criterion 4: Conservation and maintenance of soil and water resources.

INDICATORS		HR	R	LR
	area of forest with significant soil erosion		✓	
	area of forest land managed primarily for protective functions (watersheds, riparian zones)	✓		
	percent of stream volume in forested catchments where stream flow/timing has significantly varied from historic range	✓		
	area of forestland with significantly diminished soil organic matter or changes in soil chemistry		✓	
	area of forestland with significant compaction due to human activity		✓	
	percentage of water bodies in forest areas with significant variance or geological diversity from historic range	✓		
	percentage of water bodies in forest area with significant variations in temperature, chemicals, dissolved oxygen	✓		
	percent of forestland with increasing toxic substances	✓		

Criterion 5: Maintenance of forest contribution to global carbon cycles.

INDICATORS		HR	R	LR
	total forest system biomass and carbon pool (by characteristic specifics)			NA
	contribution of forest ecosystem to total global carbon budget by type (standing biomass, woody debris, peat and soil carbon)			NA
	contribution of forest products to global carbon budget			NA

Criterion 6: Maintenance and enhancement of long-term multiple socio-economic benefits to meet the needs of societies.

With nineteen indicators included under this criterion, an interesting split occurs here. Almost half (47%) of the indicators are determined to be highly relevant or relevant to tribal forest health values. These indicators allow for focus on employment and tribal community needs, and on the very unique cultural sensitivities associated with the functions of forests in tribal communities. Another 37% of the indicators which focus performance on supply and consumption of wood and non-timber forest products were determined to be less relevant and important to tribal views on forest health and sustainability.

Three of the indicators focus on the monitoring of forest functions in relation to tourism attraction, factors that are not normally considered in tribal forest management objectives and practices.

INDICATORS		HR	R	LR
PRODUCTION AND CONSUMPTION	value of wood and wood products production, including value-added processing		✓	
	value and quantities of production of non-timber wood products			✓
	supply and consumption of wood and wood products			✓
	value of wood and non-wood products as a percentage of GDP			✓
	degree of recycling of forest products supply and consumption of non-wood products			✓
RECREATION AND TOURISM	area/percent of forestland managed for recreation/tourism			NA
	number and type of facilities for general recreation/tourism			NA
	number of visitors attributed to recreation and tourism			NA
INVESTMENT IN THE FOREST SECTOR	value of investment in entire forest products sector (growing, managing, processing, tourism, etc.)	✓		
	level of R & D and education		✓	
	extension of new/improved technologies			✓
	ROI's for activities			✓
CULTURAL, SOCIAL AND SPIRITUAL NEEDS/VALUES	area of forest specifically managed for cultural, social and spiritual needs/values	✓		
	non-consumptive use of forest values	✓		
EMPLOYMENT AND COMMUNITY NEEDS	direct and indirect employment in forest sector as a relation to total employment	✓		
	average wage and injury rates in major employment categories in forest sector	✓		
	viability to changing economic conditions of forest dependent communities – including indigenous communities	✓		
	area of forestland used for subsistence purposes	✓		

Criterion 7: Legal, institutional, and economic framework for forest conservation and sustainable management.

Of the twenty indicators included under this criterion, only four indicators appear to have less relevance to tribes: two deal with economic frameworks that require long-term investment policy considerations and forest product trade policy issues; another deals with emphasis on climatic change; and the fourth deals with coordinating with other jurisdictions in the measuring and monitoring of forest management practices. On this last point, tribes may well find unique opportunity to consider coordination with other jurisdictions of some forest management activities at larger landscape scale to help achieve forest health objectives. The second IFMAT report underscored two issues seminal to this discussion: **a)** acreage treated for hazardous fuels reduction on Indian lands remains lower than needed; and **b)** immediate and focused attention is needed to utilize small diameter and low quality logs. These issues are also central concerns to public forestland managers. To define collaborative pathways for solution focused on woody biomass utilization from fuel load reduction projects the US Forest

Service recently teamed up with the Bureau of Land Management and the Department of Energy to coordinate projected biomass offering at landscape scale to encourage investment in small diameter log processing and biomass utilization. Known as the CROP program (coordinated resource offering protocol), pilot projects have just been initiated in six regions across the US that encompass 24 National Forests, 22 BLM districts, and over 150 state and county jurisdictions. Included within these pilot project landscapes are 24 Indian Nations.

INDICATORS		HR	R	LR
LEGAL FRAMEWORK	clarifies property rights, land tenure arrangements; recognizes customary and traditional rights of indigenous peoples provides means for resolving disputes	✓		
	provides for periodic planning, assessment, policy review to recognize range of forest values		✓	
	provides opportunities for public participation in public policy and decision-making related to forests		✓	
	encourages best practices for forest management		✓	
	provides for management that conserves special environmental, cultural and social/scientific values	✓		
INSTITUTIONAL FRAMEWORK	provide for public involvement, education and awareness of forest-related activities	✓		
	provide for periodic planning, assessment, policy review to recognize range of forest values		✓	
	develop/maintain human resource skills across relevant disciplines		✓	
	develop/maintain efficient infrastructure to facilitate supply of forest products and services and support forest management		✓	
	enforce laws, regulations and guidelines		✓	
ECONOMIC FRAMEWORK	investment policies and practices that recognize long-term nature of investments meeting long-term demands of forest products and services			✓
	non-discriminatory trade policies for forest products			✓
MEASURE AND MONITOR	up-to-date information important to measuring C & Is		✓	
	scope, frequency and statistical reliability of forest inventories, assessments and monitoring		✓	
	compatibility with other jurisdictions in measuring, monitoring and reporting			✓
RESEARCH AND DEVELOPMENT	development of scientific understanding of forest ecosystem characteristics and functions		✓	
	development of methodologies to measure and integrate environmental and social costs and benefits into markets, public policy and to reflect resource depletion or replenishment into accounting systems	✓		
	identification of new technologies and capacity to assess socio-economic consequences associated with introduction of new technology	✓		
	enhancement of ability to predict impacts of human intervention in forests		✓	
	ability to predict impacts of forests to possible climate change			✓

Lessons Learned – Is there a Match?

Before answering this question, it's important to acknowledge the obvious limitations of this assessment. Two are most notable:

- the small sample size of tribes that participated in the full FSC audits and reverse assessment results that became the comparative baseline to the Montreal Process C&I assessment. We do not know whether assessment results would remain relatively the same or change significantly with a larger Indian population sampling; and

- the generic nature of the C&Is that do not serve as operational criteria but are intentionally designed to guide the development of specific and operational criteria in individual settings. It is sustainability as achieved on individual Indian reservations.

There is tremendous diversity among Indian forests; both as to the biological character of the resource and to the dependence of tribal economies on the harvest and utilization of forest products, fish, water, and wildlife. At its core, the reluctance of tribal governments to accept and employ standards comprised of criteria and indicators that reflect values of external societies is a matter of policy. To attempt to measure sustainability of tribal forests in a judgmental way through the imposition of an inflexible universal yardstick represents a fundamental failure to respect the legitimacy of tribal prerogatives to use and manage their own resources according to their own values for the benefit of their own people. A useful reporting and assessment program for tribal forests should have at its design core the separate ability to allow for the unique internal community features each Indian Nation must serve. Since the cultural values shaping tribal forest management are driven by the diverse ways in which forests affect tribal communities, tribes would likely be reluctant to embrace the imposition of externally-driven operational criteria as a basis for evaluating the effectiveness or appropriateness of their management practices. However, the “generic” nature of the C&Is noted above matched with an ability to weight the importance and relevance of individual criterion by individual tribes (as was done in this assessment) may prove a valuable protocol for establishing a minimum standards framework against which the adequacy of the forestry programs of the BIA in fulfilling its trust responsibility to Indian tribes can be measured (NIFRMA mandate #7). Introducing this “importance and relevance” protocol to the C&I process may be useful in growing a stronger connective link between tribal forest health and sustainability values, and the BIA's trust oversight responsibilities.

At the end of the day, it continues to be important to acknowledge the influence of a persistent lack of adequate funding for Indian forest management provided through Congressional appropriations. Indian forestry has long been forced to operate on a shoestring budget. In such an environment, activities are closely scrutinized and competition for alternative uses of funds is fierce. In Indian country, the relevance and importance of several criteria and indicators employed by third party certification and the Montreal process, such as those related to production of paper documentation or monitoring and reporting to satisfy administrative desires for data, will fare poorly when weighed against the needs to invest time and energy in activities that will improve conditions “on-the-ground.” These decisions can only be made at the local level where the unique character and significance of forests to individual tribal communities can be taken into account along with potential impacts on already over-worked tribal staff who struggle daily to try to manage the forests with inadequate budgets.

A SCHOOL OF RED HERRING

by
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Center

Attempt any public meeting on forest management and you'll probably encounter a whole school of red herring. Forums, such as the USFS Centennial Forestry Congress, convened through the use of buzz words, sound bytes and slogans which satisfy media needs and invite involvement, enable perspectives to be shared. Red herrings thrive in such places and contribute to a cacophony of value-laden rhetoric that too often fails to provide the substantive, thoughtful deliberation necessary to ultimately provide clear direction. Red herrings have proliferated to such an extent that federal land managers are rapidly losing the capacity to manage the forests, decision processes are becoming paralyzed, and costs of dealing with administrative and legal challenges are skyrocketing.

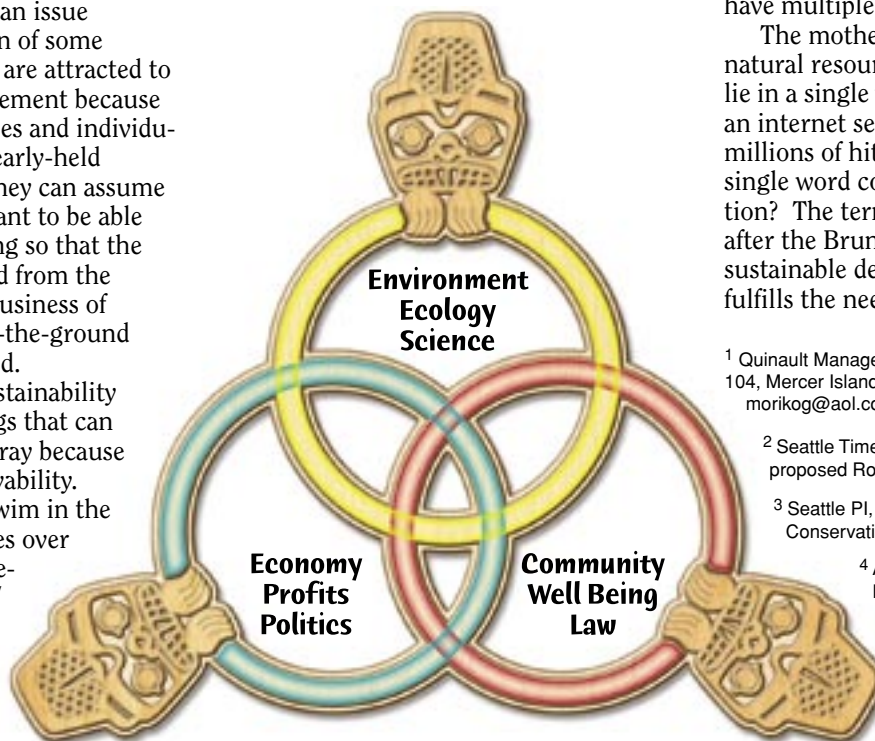
What exactly is a red herring? Simply stated, it is an argument that distracts attention from an issue through the introduction of some irrelevancy. Red herring are attracted to debates on forest management because forests affect communities and individuals in ways that touch dearly-held personal values. While they can assume many guises, it's important to be able to recognize a red herring so that the relevant can be separated from the irrelevant and that the business of decision-making and on-the-ground management can proceed.

The road to forest sustainability is paved with red herrings that can lead decision makers astray because of their superficial believability. Many different species swim in the muck and mire of debates over natural resource management. One is the *appeal to authority*; it appears when the force of an argument rests on the opinion of a respected

individual, sometimes someone who has no expertise on the issue or someone who is knowledgeable but not disinterested (i.e., has a vested interest in the outcome). Another species is an *appeal to consequences*; it appears when the weight of an argument rests on the belief that something good or bad will happen, but which is not relevant to the truth of the matter under discussion. For example, a belief in Santa Claus may cause a child to be well behaved around Christmas. This species is closely related to *wishful thinking*, a predisposition or personal bias that leads to a belief that is not founded in reality. For example, suppose someone offers to pay a million dollars to anyone who truly believes that trees can walk. If you can force yourself

to do so, you would receive the money; but that would have nothing to do with whether trees can really walk. *Loaded words* are another species; it appears when acceptance of an argument is based on a secondary, evaluative meaning of a term or phrase in addition to its primary, descriptive meaning (e.g., the word *trees* is unloaded while *ancient forest* is loaded). Loaded words are logical booby traps that cause unwarranted, evaluative conclusions to be reached. A favored habitat for this species is media headlines where "spin doctors" ply their craft to influence public perception. Recent examples from Seattle newspapers include "Bush Clear-Cuts a Forest Plan"² and "License to Kill."³ The most common form of red herring is *equivocation* and its close relative, vagueness; both these species emerge when an unsound argument appears valid because the terms used have multiple meanings.⁴

The mother of all red herrings for natural resource management seems to lie in a single word, *sustainability*. Do an internet search on *sustainability* and millions of hits will pop up. How can a single word command so much attention? The term came to prominence after the Brundtland Report⁵ defined sustainable development as that "which fulfills the needs of the present genera-



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² Seattle Times, 5/9/05 a story about a USFS proposed Roadless Rule

³ Seattle PI, Special Series on Habitat Conservation Plans 5/3/05

⁴ A discussion of different types of logical fallacies can be found at <http://www.fallacyfiles.org/index.html>.

⁵ Brundtland, Gro Harlem. 1987. "Our Common Future." UN Commission on Environment and Development.

tion without jeopardizing the possibilities of future generations to fulfill their needs.” Since then, ill-defined concepts of sustainability have become ubiquitously entrenched in the dialog of policy concerning management of natural resources. “The word is just a symbol, a key to open the door to a room full of growth and development issues.”⁶

The multiple dimensions of sustainability have become keystone topics for speeches and policies. In May 2000, Oregon Governor Kitzhaber described sustainability as the place where environmental, economic and community goals are simultaneously met.⁷ The concept of meeting a trinity of needs has materialized in business as the “triple bottom line” where the profits, ecology, and individual well-being overlap. It has also appears in academic descriptions of futuristic economic models.⁸ A trinity of needs also surfaces prominently in political decision making where the goal is to find an acceptable balance between science, politics, and law.⁹ In all these models, the goal is to seek the greatest overlap possible between component elements. The most important thing to recognize, however, is not the components, but rather the lack of a single solution. The goal is not to try to find THE solution, but rather to find one that is serviceable, one that simply works.

A reason why so many debates over natural resource management seem interminable and unsolvable is because people search for, and argue over, something that doesn’t exist—that magical solution where every need is satisfied for everybody everywhere, all the time—a nirvana where controversy vanishes and resource managers are left knowing what to do and are allowed to get the job done.¹⁰ But the search is futile. Policy makers need to avoid getting drawn into bright line debates about what is right or wrong, good or bad. Instead, they must have the will to make a serviceable decision (supported by sound science to avoid being capricious) in the gray zone and stick with it. Don’t try to defend it against being arbitrary—any decision will appear arbitrary to someone because it will involve concepts that defy unambiguous definition.

Unsustainable



the lessons our elders have passed on to us. We rely upon these precious gifts as we draw upon our own knowledge and experiences to shape our vision of the environment we hope to preserve for the seventh generation to follow.”

Pearl Capoeaman-Baller
President, Quinault Indian Nation

Tribes have been managing natural resource systems for thousands of years, but protecting tribal legacies for the future is no simple task. The resources that are essential

to sustain tribal cultures are coming under relentless attack from a variety of economic and political forces, and tribes seemingly lack the power to prevent irreversible damage. To a great extent, these threats stem the introduction of an invasive species several centuries ago; Indian tribes have experienced first hand the devastation brought to their resources, communities, cultures and economies from the first invasive species, Europeans (did you catch the red herring?). Throughout the history of this Nation, as non-Indians coveted tribal resources, rationales were developed to justify their expropriation in the name of what’s in the *best interests of the Indian, progress or the common good.*

In this day when environmental politics stifle the capacity of our public agencies to act, Indian tribes have been able to continue to manage their natural resources. Why? Although laws and regulations for Indian forests differ from those pertaining to public land or private land, the foremost reason is that tribal cultures and economies are motivated by a strong sense of spiritual and moral duty to protect the interests of the generations to come.

“When we as tribal leaders think about the environment, we call upon the wisdom of our ancestors and recall

⁶ John Van Sickle, U.S. EPA research laboratory, Corvallis, Oregon.

⁷ Can Oregonians Have it All: A Healthy Economy, a Clean Environment, and Great Livability? Mark O. Hatfield Institute for International Understanding. Keynote address by Governor John Kitzhaber, August, 28, 2000.

⁸ Hawken, P., A. Levins, and H. Lovins. 1999. Natural Capitalism. Little Brown. Natural capitalism depends on three basic guiding principles: (1) increase the productivity of natural resources, saving resources, saves money and the environment - increasing environmental stewardship will provide market boost with growing consumer awareness; (2) design ecologically-based, closed-loop production systems - eliminate waste, recycle, re-manufacture, seek to emulate nature, where waste from any system is food for another; and (3) shift from producing and selling goods to providing services that meet customer needs—motivations for recycling and waste reduction are increased when producers retain the responsibility for disposition of goods that no longer meet customer needs.

⁹ Ezrahi, Yaron. “Utopian and Pragmatic Rationalism: The Political Context of Scientific Advice.” *Minerva* 18 (1980):114.

¹⁰ Toward the end of his classic article, “The Tragedy of the Commons,” *Science*, 162(1968):1243-1248, Garrett Hardin made this telling observation:

*“It is one of the peculiarities of the warfare between reform and the status quo that it is thoughtlessly governed by a double standard. Whenever a reform measure is proposed it is often defeated when its opponents triumphantly discover a flaw in it. *** As nearly as I can make out, automatic rejection of proposed reforms is based on one of two unconscious assumptions: (1) that the status quo is perfect; or (2) that the choice we face is between reform and no action; if the proposed reform is imperfect, we presumably should take no action at all, while we wait for a perfect proposal. *** But we can never do nothing. That which we have done for thousands of years is also action. It also produces evils. Once we are aware that the status quo is action, we can then compare its discoverable advantages and disadvantages with the predicted advantages and disadvantages of the proposed reform, discounting as best we can for our lack of experience. On the basis of such a comparison, we can make a rational decision which will not involve the unworkable assumption that only perfect systems are tolerable.”*

The utilitarian notion that the greatest good for the greatest number equals the best outcome has become so entrenched in the public mind-set that it is simply accepted as a matter of truth and logic. But this notion is a red herring that is used to affirm the idea that the “end justifies the means”—that it is somehow right to force minority interests to give way to the majority in the face of conflict. This echoes the argument made by the priest Caiaphas¹¹ when he decided that Jesus must be sacrificed. It is also an argument all too painfully familiar to indigenous people the world over throughout history.

The idea that the “needs of the many outweigh the needs of the few” should sound familiar to Star Trek fans. In the *Wrath of Khan*, Spock recites the phrase as his reason for exposing himself to deadly radiation to fix the warp drive of the Enterprise. Close inspection of this utilitarian notion, however, reveals it to be a red herring. Spock’s reasoning only makes sense if one accepts the premise that every life is of equal value. Instead of sacrificing himself to save the Enterprise, what if Spock had held a phaser to the head of a subordinate and ordered him to fix the warp drive? Spock’s action would have been perfectly logical and justifiable. Since all lives are of equal value, it is irrelevant whose life is sacrificed for the good of the many, and surely, as the Science Officer, it could be logically argued that Spock was more valuable to the survival of the crew than the subordi-

nate. But our perception of Spock’s action and the logic behind it would have been dramatically changed because we would have viewed this as an immoral act. The image of Spock as a being driven by logic, confuses the validity of the “good of the many” argument and his self-sacrifice. This is a red herring. The matter at issue is not the truth of the utilitarian notion, but rather the moral question of who has the right to decide.

enant far stronger than administrative fiat or the force of written law could ever hope to approach. Permanence of place imparts an unparalleled continuity to community-based decision-making for forestry. In making their decisions, Tribes draw upon the knowledge gained by their ancestors in working with the land, but maintain their focus on protecting the interests of the generations to follow. Tribes must live with the consequences of

their decisions everyday in ways that few outside tribal communities can understand or appreciate. The forests provide jobs, commodities for commerce, foods, medicines, fuel, shelter, fish, wildlife, water, and countless other things that affect the everyday lives of the people. If tribes log, they receive income and see the stumps. If they don’t manage and their forests succumb to wildfire, they get to feel the heat and inhale the smoke. Tribes believe that all things are related and alive with spirits; but they have also learned that they must utilize and manage nature’s gifts of trees, plants, fish and wildlife

in order to maintain the health of the resources they depend upon to survive. The reality is that non-Indian management of natural resources has hardly been admirable; some of the best models for sustainable forest management in the country can be found in Indian country where tribal governments have made their own decisions for the benefit of their own people.

To be sure, like other communities, tribes have entrepreneurs, lawyers,



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Colville Nation greenhouse supervisor Diana Seymour holds a tray of yearling ponderosa pine. The Colville greenhouse program produces sufficient seedlings to replant 6000 acres per year, split roughly between 60% ponderosa, 39% larch and 1% Douglas-fir.

The temptation to impose paternalistic or utilitarian values onto the use and management of natural resources can be overwhelming. For Indian resources, both morally and ethically, outside forces must resist this temptation and instead trust in and respect the right of tribal self-determination.

Tribes have a duty that no other government or agency has, an obligation of stewardship to preserve their cultural and spiritual heritages for future generations; a profound cov-

¹¹ John 11:50

politicians, religious practitioners, hunters, fishermen, gatherers, artisans, recreationalists, and even a few fanatics. But tribal governments must still make decisions, take actions, and be accountable for them; indecision not an option, nor are endless appeals through legal processes on matters that are fundamentally issues of policy. These are matters that only tribes can decide for themselves. Tribal sovereignty is central and essential; the tribal right and authority to choose their own path to forest management and sustainability must be respected and supported, unequivocally.

$$\text{Well Being} = \frac{\text{Satisfaction}}{\text{Cost}}$$

A simple equation can illustrate the paramount importance of community for sustainable forest management. The parameters that determine well being, *satisfaction* and *cost*, are socially and culturally determined. Researchers are just now beginning to recognize the importance of community participatory involvement in developing the interactional capacity¹² to address pressing forest health needs. Sturtevant et. al. (2004) noted that community context matters, that decisions must be made at a scale that “*evokes shared values, collective action, and a sense of place.*”¹³ Tribal communities are prime examples where these characteristics abound—a shared cultural identity, continuity of place, interactional capacity, and a moral ethic founded in resource stewardship.

The future of forest management will depend upon the ability to find a path that leads to greater individual responsibility and collective accountability for decisions that affect the land, air, water, and all things that run, crawl, swim, fly, or grow roots. That path can only be found by staying focused while slipping and sliding on the slime of red herrings and following a process that collaboratively and cooperatively engages people and gives

gain and lots to lose by losing sight of the real questions of what is to be sustained, how, and at what cost.

Decisions must be made, priorities set, and strategic actions taken to sustain our forests. The active involvement of Indian tribes in the public debate over forest sustainability could help find a path to a cohesive public forest policy. Tribal forests can serve as valuable models for community-based decision making for management of natural

resources. But tribes need to thoughtfully weigh the consequences before they decide. Should they engage the debate and welcome outsiders to learn from tribal knowledge and experience? Doing so may help alleviate some of the landscape scale problems that result from the inability to manage, such as insects, pests, and wildfire, and pose serious threats to tribal forests, but could also invite mischief from those who may wish to impose their will on tribal management prerogatives. Or would tribal interests be better served by taking care of their own business, staying on their present course, and trusting that

they will be able to continue to make their own decisions as to how to manage their forests to meet the needs of their own communities in the future?

¹² The Kenai Experience: Communities and Forest Health. USDA Forest Service Pacific Northwest Research Station. Science Update Issue 10. June 2005.

¹³ Sturtevant, V., M. Moote, P. Jakes, and A. Cheng. 2004. Social Science to Improve Fuels Management L A Synthesis of Collaboration. USDA Forest Service Rocky Mountain Research Station.



Dave Skinner

Colville administrative forester Randy Friedlander stands on a deck of tree tops in the McAllister sale area near Central Peak on the Colville reservation. Thanks to the reservation's cogeneration facility, foresters used the option of bringing whole trees to the landing for processing rather than use a conventional lop-and-scatter slashing prescription. This wood will be shipped for biomass hog fuel, generating revenue while leaving a clean forest understory that sets the stage for future prescribed burns.

them a stake in the solution.

The politics of forest management has an ecology of its own, defined by the complexity of nature and decision-making systems that provide for the expression of social, economic, legal, and scientific perspectives. Thousands of words have been written in vain to try to capture a universal vision for forest management or define *sustainability*. It's like trying to staple Jello. It's futile to try. There's little to

VIVA LA DIFFERENCE

How and why tribal forestlands are managed differently from federal forestlands

by

Dave Skinner

Evergreen Staff Writer and Photographer

Tribal lands management has always been conducted in a different political environment than management of lands held by private businesses, state, and federal entities. Recognized Indian tribes are sovereign nations that have a special relationship with their peer sovereign nation, the United States of America. This relationship, especially in matters of taxation and governance, has no domestic parallel.

This unique status extends to Indian land management. Gary Morishima, technical advisor to the Quinault Nation explains. “Indian tribes are sovereign governments with inherent powers to regulate use of the people, lands, and resources within their political jurisdictions. Indian lands are not public lands, nor are they private; they are held in trust by the United States for the beneficial use of Indians. As trustee, the United States has a fiduciary duty to manage Indian lands and resources in the interests of the beneficiary.”

Secretarial Order 3206, entitled “American Indian Tribal Rights, Federal Tribal Trust Responsibilities, and the Endangered Species Act,” signed by the Secretaries of Commerce and Interior and issued June 5, 1997, strongly spells out that fiduciary duty: “Long-standing Congressional and Administrative policies promote tribal self-government, self-sufficiency, and self-determination,

recognizing and endorsing the fundamental rights of tribes to set their own priorities and make decisions affecting their resources and distinctive ways of life.” The Act further states (in uncharacteristically explicit wording), “Indian lands are not federal public lands or part of the public domain, and are not subject to federal public land laws.”

Federal mandates that apply to public lands can also affect Indian lands. “However,” adds Morishima, “such mandates actually apply to the Department of Interior. Those mandates are placed on federal agencies and not directly on tribes. Laws such as NAGPRA, (Native American Graves Protection and Repatriation Act), NEPA (National Environmental Policy Act), and NHPA (National Historic Preservation Act) are all laws that were enacted for public land management. Because you have Department of Interior involvement as fiduciary trustees, that sometimes creates a gray area (that) clouds the application of laws like the ESA” by triggering the so-called “federal nexus” of involvement.

Confederated Salish-Kootenai Forestry Department director Jim Durglo explains the nexus concept: “If there is a federal tie, through money or employees, on trust lands, they have to comply with federal law, including NEPA and ESA.” [Endangered Species Act]

For Dr. Morishima, the issue is clear — and unassailable. “The primary point is that Indian lands were set aside for the exclusive use and occupancy of Indians, not to be managed for general public benefit. Everyone needs to acknowledge and recognize the fact that Indian tribes do have rights that are different from anybody else, rights that cannot be ignored.”

But tribal rights were ignored in the



Dave Skinner

Colville foresters exercise a wide range of options across the tribal landscape. Also in the McAllister project area on the Colville Reservation is this 720-acre burn-only treatment near the Cache Creek highway east of Nespelem.

past, even actively skirted, through a wide variety of venues, including the General Allotment Act, which has left a messy legacy of litigation, including *Cobell vs. Norton*, the \$100 billion suit alleging federal mismanagement of Indian trust fund accounts, plus confused patterns of land ownership that make tribal land managers' lives interesting. However, there is a trend toward honoring and supporting the right of Indians to manage their holdings as they see fit.

In a 1992 essay, "Development of Tribal Timber Resources, the Tribal Perspective," Seattle tribal law attorney Thomas P. Schlosser wrote that "Federal law on Indian tribal timber has gone through three distinct stages, starting with a broad prohibition on sale, next a restricted ability to sell dead timber, and finally, a restricted ability to sell any timber."

With the Indian Self-Determination and Education Assistance Act (Public Law 93-638), writes Mr. Schlosser, tribes became able to enter contracts that "generally provide for Indian tribes and organizations to take over and themselves perform services that would otherwise be performed by the United States."

"We work with the tribes as partners now," Bureau of Indian Affairs Senior Forester John Vitello tells *Evergreen*. "When I came on with BIA, it was more of a paternalistic organization. We have transitioned, as the younger generation and the Self-Determination Act evolved together into a partnership mentality. The paternalism has faded out to where our people really enjoy the partnership. Tribal leaders are strong participants. But we make sure the trust is maintained and statutes and regulations are upheld, and everyone understands that."

Something else that many are beginning to understand is the long history of active Indian land management and its connection to stewardship

today. Bob Zybach is a long-time Pacific Northwest forestry professional who now holds a PhD. in Environmental Sciences from Oregon State University. Dr. Zybach's thesis studied evidence of Indian land management patterns over a 500-year period on the entire Oregon Coast Range and their relationship to catastrophic fire patterns that followed white settlement.

Dr. Zybach found "ten thousand years of prudent management, using available tools. Now we have different

part of the balance between utilization, conservation and preservation. Indians absolutely have a direct stake in the outcome. To be a steward, you have to strike a balance."

Bobby Brunoe, natural resources manager for the Confederated Warm Springs Tribes adds, "We manage for a sustainable forest for future generations, looking seven generations beyond. It's very important to our people, because this is where we live and where we're always going to live. We need to be able to take care of our environment."

How they are taking care of their environment is what this *Evergreen* issue is about. But Indian land management, while unique, does not occur in a vacuum. It is part of a larger and more troubling picture of forestry in the West today, a picture that includes dead and dying federal forests, catastrophic wildfires and the widespread litigation-related loss of wood processing infrastructure, at the very moment when it is needed most. In the aftermath of the disastrous 2002 Rodeo-Chediski Fire, which ripped through thousands of acres of

magnificent ponderosa pine owned by northern Arizona's White Mountain Apache, the tribe had no choice but to sell its prized timber to California-based Sierra Pacific, which railed the trees to two of its California mills for processing. Even more exasperating, there remains such a shortage of loggers in the Southwest that most of the salvage work was done by unemployed loggers imported from Oregon, Washington, Idaho, Montana and Alaska.

Adding insult to injury, the timber base that supported Fort Apache Timber Company's (FATCO) westside sawmill is gone. As a result, says Paul DeClay, Jr., Forest Manager, Forestry Department, White Mountain Apache Tribe, "We are trying to find jobs for those people, but unemployment is up to about 80% right now."



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The Colville Indian Power and Veneer mill in Omak, Washington. The vapor plume is from CIPV's biomass cogeneration plant. As with other "cogen" plants around the country, CIPV's biomass boilers not only help power the mill and bring in power revenue to tribal coffers, but comparatively clean generation gives tribal land managers options when it comes to balancing clean air against the need to have fire in a healthy forest.

tools and different sets of problems, but it's a continuation of past practices, not some kind of abrupt beginning."

"The politically-correct assumption is that the people that were here 'before' weren't managing the land," Dr. Zybach explains. "There is overwhelming evidence in Oregon of agrarian societies, fishing societies, hunting and gathering, trading societies, of widely-shared, stable technologies, even well-established evidence of trade patterns extending over two continents and thousands of years. The landscape has been shaped by human activity since Day One."

Tribal managers take their history seriously. "I have the idea that, through the millennia, Indian people have always been stewards," says Jim Durglo. "Indian people are a part of that environment,

The tribe is considering re-tooling the dormant FATCO west side mill to small-diameter processing, says Mr. DeClay, because “we have too many six, eight, and eleven-inch pole stands where we don’t get any growth. We want to sell the wood off the reservation for biomass so we can treat the whole stand, not just the saw timber.”

Outside proposals for oriented-strand-board production and a substantial biomass plant have been presented to the tribal council, but both concepts are contingent on not only a steady supply of small diameter timber plus smaller trees from the adjacent Apache-Sitgreaves National Forest. Mr. DeClay says, “The tribe has no problem with commitment, but you know how it is with the Forest Service, every time they try something they get tied up in appeals and litigation.”

So why aren’t tribes tied up in appeals and litigation even though many projects have a federal nexus that mandates substantial environmental compliance? Why can they perform? “Because we have sovereign status and tribal immunity,” answers CSKT’s Jim Durglo. “We are subject to public opinion and comment, and invite tribal interests to participate. We’ve gotten appealed before, by interest groups like Friends of the [Wild] Swan, that did appeal a timber sale the BIA was proposing (late 1980s). What happened was the Bureau requested them to post a bond to process the appeal. If they lost the appeal, they would lose the bond.”

“One of the reasons they can carry out programs approved by their tribal councils is that the litigation procedures are completely different,” states John Sessions, Distinguished Professor of Forest Engineering at Oregon State University. “For example, outside parties have to post a bond and thereby incur a liability. With the feds, you have no liability.”

“It is essential to understand the sovereign status of tribal governments,” explains Gary Morishima. When tribal governments proposal a major project, the public can participate through hearings, “but the tribal governments will decide. The tribal public has two options for appealing that, one of course being the ballot box, where tribal constituents elect their representatives. There’s also the possibility of legal action IF the tribal government chooses to waive its sovereign immunity, and

Gary Morishima, “Environmental groups got hold of a faction of the Navajo tribe that didn’t want to see any timber harvest on the reservation.” The resulting legal action “forced the Navajos to go through a full-blown Environmental Impact Statement process which cost them several million dollars and took several years to complete. In the meantime, their forest enterprise went broke and their forest deteriorated. But that’s the only instance I’m aware of where that’s happened in forestry.”

Tribal forestry, that is. When it comes to other land management actions with any sort of federal nexus, it is difficult to find any that have NOT been tied up in litigation and appeals.

Does the different litigation environment matter? Well, a top-notch team of “name” forestry and policy experts (including John Gordon, PhD., Joyce Berry, PhD., Mike Ferruci, MF., Jerry Franklin, PhD., K. Norman Johnson, PhD., Calvin Mukumoto, MBA, David Patton, PhD., John Sessions, PhD., Michael Sterner, M.F., and David Meyers, PhD.) recently prepared “An Assessment of Indian Forests and Forest Management in

the United States,” or IFMAT II, for the Intertribal Timber Council.

The IFMAT II report partially focuses on administrative budget issues facing tribal land management and acquisition programs. Tribal forestry has always been funded at a much lower level than national forests. At the time of the first IFMAT effort in 1991, “Indian forestry [including fire] received only about one-third the amount per acre as was invested in the national forests. In 2001, Indian forestry received about two-thirds...”

The change in proportion is, according to IFMAT II’s authors, because of a “large reduction” in USFS forest management funding and a “significant” increase in fire and fuels management funding for tribes — “significant” meaning a 363% jump



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This 2004 regeneration cut on Mineral Ridge on the Colville Reservation in Washington also had an intermediate harvest about 1990. Overall, the Colville tribes are managing for a 120-year rotation.

tribes may or may not decide to do that.”

The only entities allowed to appeal a tribal timber sale are those “directly and adversely affected,” Mr. Morishima says, “not just anyone walking off the street.”

BIA Chief Forester Bill Downes explains further that under the Code of Federal Regulations that governs BIA, appellants must have proof of standing. “They must have an economic stake or show significant adverse impact.” Further, the determination of significance is left to the discretion of the deciding officer.

Of course, tribal members have automatic standing to appeal tribal projects. However, in Downes’ recollection, “administrative appeal of tribal actions by tribal members is very rare,” having recently occurred only on the Navajo reservation. In that case, recalls

from \$1.80 in 1991 to \$6.55 in 2001 per acre. But funds for non-fire forest management actually declined in real terms over those ten years, from \$3.29 to \$2.83 per acre.

From 1991 to 2001, Forest Service harvest level nationwide fell from 10.036 billion board feet to 1.939 billion, an 81 percent decline. Concurrently, tribal harvest nationwide fell from 729.7 million board feet to 605 million, a decline of 17%. Given the decline in USFS harvest in a strong lumber market, one may be surprised to learn that tribal timber receipts declined more than harvest, down 27%, according to IFMAT II's authors. "Mill closures caused by lack of timber from federal lands have created a problem for some tribes by limiting their market and increasing transport costs."

Especially striking is a table on Page 37 of the IFMAT II report, prepared by co-author John Sessions and presented as part of IFMAT II's discussion of tribal funding levels. Dr. Sessions collected information on total integrated land management budgets per acre (not including fire control) for private, state, Bureau of Land Management, Forest Service, and tribes/BIA in the Pacific Northwest (Oregon and Washington).

Timber production is, after all, the primary means forest managers have for generating revenues to cover management costs. Dividing agency budgets by timber sold for a cost per thousand board feet of harvest can give a very general cost-benefit/profit-and-loss comparison.

Interestingly, Dr. Sessions' data shows tribal/BIA budget investment in the timber-blessed Northwest matched the U.S. Forest Service's \$18 per acre. On average, tribes harvested a thousand board feet per \$92 of budget. Given stumpage prices currently running anywhere from \$150 to \$300, it appears that Indian timber sales can make money, at least in the Northwest.

For the Forest Service, the same budget/production comparison shows the agency spent \$1,296 per thousand feet sold, 14 times more than tribal operations, and roughly four to eight times the market price of timber on the stump.



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Hustling a load of Colville Indian timber from the Inchelium side of the reservation to the mill in Omak.

Obviously, the Forest Service is nowhere near covering its costs of management—this before including the budget-busting billions wasted on uncontrolled wildfire.

In a way, Congress has recognized the problem. Many can recall the vociferous opposition of environmentalists to passage of the Healthy Forests Restoration Act. But few, including this writer, ever heard of another federal law that also passed as a result of the 2002 California wildfires: The Tribal Forests Protection Act (TFPA) of 2004, now Public Law 108-278.

Co-sponsored by Californians U.S. Rep. Richard Pombo (R) and U.S. Senator Dianne Feinstein (D), TFPA authorizes "the Secretary of Agriculture and the Secretary of the Interior to enter into an agreement or contract with Indian tribes meeting certain criteria to carry out projects to protect Indian forest land." Tribes can request to manage adjacent federal lands that pose a fire or disease risk to Indian holdings, and the agencies must answer requests within 120 days.

This amazing development generated no debate in Congress, passing the House floor on a voice vote, and then passing the Senate by unanimous consent to President Bush's desk for signature. Congressman Jim Gibbons (R-Nevada) proclaimed: "By passing this legislation, Congress will be sending a strong and clear message to the agencies that tribes need to be an integral part of the thoughtful management of our Federal lands, for the betterment and safety of all."

Maybe so, but Congress's real message may be a defacto admission that BLM and especially the Forest Service are not accomplishing "thoughtful management" of the lands entrusted to their care under current law—laws that Congress wrote.

Can Indians do better? Perhaps, depending on politics. TFPA carries none of the exemptions from litigation and appeal that protect tribal projects from spurious interference by non-Indian environmentalists. Will environmentalists sue to stop TFPA projects, or won't they?

If TFPA projects are implemented on adjacent federal lands, important precedents may be set. If environmentalists sue in order to prevent that possibility, they risk alienating Indians and losing Indian political support. Obstruction may further force Congress's hand and spur amendments to TFPA that extend tribal protections to all federal forestry projects that have Indian involvement.

Or, it may simply be that TFPA will enable tribes to spread their good example of land management. Several of the folks I spoke with for this article expressed similar remarks about their optimism for the future and desire to set a good example, but BIA's John Vitello put it best: "The way Indian forests are being managed today is something that I would hope provides an example for the rest of the American public. They will see that you can manage a forest, produce forest products, and still retain all those natural values that people want to see on federal lands. Maybe the process can be mimicked on federal lands with public understanding and support." We'll see...hopefully soon.



Larry Workman

A view showing the mountainous terrain of the Quinault Reservation's North Boundary area.

SOVEREIGNTY, STEWARDSHIP, AND SUSTAINABILITY

by
Larry Mason

Some visitors are fortunate to be invited to walk in tribal forests. Others may view these lands from afar as they travel America's highways. However, many Americans may never see the timberlands of Indian Country and most have little understanding of tribal forest management. If sustainability is to be the national goal for forestry in the 21st century, Native American successes in forest management could provide valuable insight on how to move beyond the false choices of preservation verses exploitation that have characterized resource conflicts of the last century. This paper will look briefly at the changing face of contemporary forestry across all ownerships, examine encouraging developments on tribal lands, and suggest that tribal resource programs may be playing an increasingly important, but as yet unheralded role in the evolution of American forestry.

Forestry across multiple ownerships

From 1998 to 2002, fifteen million acres of private commercial forestlands in the United States have shifted from traditional forest products companies to timber investment management organizations (TIMOs). While industrial timberland owners historically held lands for decades, TIMOs typically retain

land for seven to fifteen years before selling it for a return on the investment. Within the next decade, the Pinchot Institute for Conservation predicts another 12 to 15 million acres will transfer from the forest industry to

crisis of overstocking, disease, insect infestations, and mortality. As a result, more than 120 million acres of Forest Service (FS) and Bureau of Land Management (BLM) forest are at moderate to high risk of catastrophic

TIMOs (Timber Trends 2002). If this prediction is accurate, by 2020 approximately 40% of the nation's industrial forestland will be in TIMO ownership.

A recently published report (Stein et al. 2005) warns of growing concerns about the effects of development on private forestlands. Since 1990, the rate of conversion of private forests to developed uses has reached a million acres per year. Forest Service researchers estimate that, by 2050, an additional 23 million acres of forestland will be developed for residential and commercial uses (Alig et al. 2003). Urbanization represents a threat to the extent, condition, and health of forests and has been shown to be a major contributor to nonpoint pollution of surface waters and degradation of wildlife habitats (Wear and Greis 2002, Theobald et al. 1997).

On federally owned forest lands, a century of fire suppression, past harvest practices, and overgrazing combined with a lack of forest management activities in recent decades has created a forest health



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A view of the Regeneration cut on Mineral Ridge on the Colville Reservation in Washington.

wildfire (Norton 2002). During the period from 1994 to present, more than 50 million acres of forest and rangelands, mostly in public ownership, were consumed by wildfire with cumulative fire suppression costs greater than \$9 billion (NIFC 2005). Due to conflicting regulations, special interest litigation, shortfalls of trained personnel, and other factors federal agencies have not been able to launch significant response toward the restoration of forest health.

In the years from 1989 to 2002, as a result of dramatic reductions in federal timber harvests, 378 milling operations closed in the Pacific Northwest (Pease 2003). From 1991 to 2002, 48,000 forest products workers lost their jobs in Washington, Oregon, California, Montana, and Idaho (Warren 2004). The shift of forest ownership from vertically integrated industrial corporations to TIMOs, investment groups that typically don't own mills, is causing further erosion of regional manufacturing capacity.

Across the west, reductions in federal timber harvests have resulted in closures of milling operations that had once been purchasers of tribal logs. In some states, such as Arizona, there are no mills left within reasonable hauling distances and stumpage values have plummeted.

There are approximately 18.5 million acres of Indian forestlands on 287 reservations held in trust by the United States. The Northwest region has the most productive forests that are owned and managed by tribes. In 2001, tribal forests in the Northwest accounted for more than 67% of the timber volume and more than 72% of the revenue generated from harvests on all Indian forests in the United States (Downes pers com). While Indian harvests in the Northwest have remained stable at just under 400 MMBF/year, Forest Service harvests have dropped

by more than 80% from 1992 to 2002 (Warren 2004).

In contrast to industry divestiture of forestland assets, many tribes are increasing reservation forests through purchases of allotments and non-Indian lands and by reclamation of tribal titles. During the decade from 1991 to 2001, tribal forestland acreage increased by 2.1 million acres (IFMAT II 2003).



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Indian enterprise, illustrated here by Colville Indian Power and Veneer's plywood lay-up line, competes in the global marketplace while also providing tribal members and others with decent wages in tough job markets.

In addition to expanding their forest holdings, some tribes have been investing in timber manufacturing enterprises. For example, in Washington State, the Confederated Tribes of the Colville Reservation operate a saw mill and a veneer plant which currently provide 300 jobs, 80% of which are held by Indians (Picard pers com); the Yakama Nation operates two sawmills with 320 employees, 92% of which are

Indian (Olney pers com). In New Mexico, the Mescalero Apache have the only two sawmills left in the state. These mills employ 100 people of which 60% are Indian (Ryan pers com). In Oregon, 135 people, of which 75% are tribal members, are employed by the sawmill enterprise of the Confederated Tribes of Warm Springs (Potts pers com). The Menomonee, in Wisconsin, employ 99 people in the tribal sawmill of which 96% are tribal members (Schmidt pers com). The Menomonee, Warm Springs, San Carlos Apache, White Mountain Apache, and others also have milling enterprises. While hard data is not available, total Indian lumber production is estimated to be more than 400 MMBF/year with most capacity added within the last twenty years. In addition to significant local jobs and revenues, increases in Indian lumber production help to offset the rising national trade deficit in softwood lumber by providing needed products to American consumers. Total harvest volume on Indian timberlands for recent years has averaged just over 600 MMBF/year with log volumes not utilized for tribal enterprises sold on the open market (IFMAT II 2003).

Since Indian Nations own their own forest resources and tribal enterprises are operated under the guidance of tribal councils to achieve broader socio-economic goals than profit maximization, the jobs per unit harvest volume multipliers appear to be greater for tribes than private industry. Available data indicates that for tribal enterprises one MMBF of timber harvest per year generates approximately 51 direct and indirect jobs (IFMAT II 2003) while one MMBF of timber per year harvested from other ownerships is more likely to generate 40 direct and indirect jobs (Conway 1994). In 2001, tribal forest resources in the United States supported 30,800 Indian and non-Indian full-time

jobs worth \$477 million in payroll expenditures (IFMAT II 2003). Since most of these jobs occur in rural areas plagued by high unemployment, avoided costs of social services have high leverage for contributing to community stability. In addition to creating jobs, tribal purchases of goods and services contribute billions of dollars to state economies (Tiller 1996).

A recent national study of the future availability of qualified resource professionals for public service highlights two alarming trends. The Department of Interior and the Forest Service employ more than 90,000 people and about one-half of them are expected to retire by 2007. Reports from other federal, state, and tribal agencies confirm a similar pending labor need. Compounding the problem, national undergraduate enrollments in natural resource and conservation programs have been declining since 1995 (RNRF 2003-4). When available data for Native American verses all student enrollments are compared, an upward trend of approximately 5% for Native American enrollments in natural resource and conservation programs appears in contrast to the downward trend (40% loss since 1995) in total student enrollments (FAEIS 2005, Sharik and Earley 2004). While national data on numbers of Native Americans pursuing careers in resource management or other forestry-related occupations is sparse, the number of tribes contracting, partially or fully, with the federal government to provide management services for their own forests has increased from 64 in 1991 to 121 in 2001. The quantity and quality of tribal forestry professions has also increased (IFMAT II 2003).

While dramatic and potentially destabilizing impacts are being experienced in other sectors of the forest industry, tribal forestry programs appear to be stable or expanding. Three primary factors have been credited with contributing to successes in Indian forestry: culture, sovereignty, and institutional infrastructure.



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Small feller-buncher salvaging rocky ground on Log Springs fire area northwest of Warm Springs. Log Springs burned in the summer of 2004 and salvaging started at the end of the summer to beat both winter mud and blue-stain fungus damage. Unmerchantable trees and survivors with 25% crown survival are being left.

Culture

Indian forests are managed to benefit tribal communities in many ways—by producing timber and a wide variety of non-timber products such as traditional foods and medicines, and firewood. Spiritual use, grazing, water, and wildlife habitats are also important. Protection of forests for use by tribal members on an enduring basis is the paramount management emphasis (IFMAT II 2003).

Throughout much of the twentieth century, the federal policy for Indian development was based upon assumptions that acculturation was needed to help Indians shed their “Indian-ness” (USDI BIA 1969 from Jorgensen and Taylor 2000). Research at Harvard University (Cornell and Kalt 1991) finds that the opposite is true: Indian culture is an organizational resource based in a common set of values and sense of place that binds individual tribal members together in pursuit

of the common good. In the absence of such shared mechanisms for defining rights to action and objects, specialization and exchange (key elements of development) become impossible to achieve. While formal governmental mechanisms, such as rules and laws, contribute needed absolute authority, less formal, but potent, cultural mechanisms incentivize individual contribution through honor, praise, group acceptance, affirmations of identity, and other rewards. When culture is in conflict with governing institutions then ruling authorities can never become legitimate and subsequently can never become effective.

Sovereignty

Without exception, claims Kalt (2001), self-determination is the only federal policy that has resulted in the development of economically, socially, and politically successful Native communities. The long and arduous journey of Native Americans from wards of the federal government, first codified by Chief Justice John Marshall in 1832, to self-governance

is too lengthy to be told here. During much of this time, however, the federal government, through the Bureau of Indian Affairs (BIA), conducted most tribal business including the management and marketing of Indian timber resources. In 1975, in response to repeated claims that tribal economic and political interests were not properly served by the BIA, Congress passed the Indian Self-Determination and Education Assistance Act (Public Law 638). Tribes, participating in the PL 638 program, may take over one or more BIA responsibilities and receive associated concomitant funding to manage the task. Examples for forestry might include project areas such as inventory or forest development all the way to total control of the tribal resource program. Federal costs remain constant but tribal responsibilities increase. A study of 75 tribes conducted as part of the Project on American Indian Economic Develop-

ment at Harvard University examined the effect of tribal control of forestry under PL 638 and found significant improvements in productivity (Krepps 1991). With no increase in personnel, worker outputs for tribes under PL 638 rose by as much as 40% and better marketing with resulting higher prices brought 6% improvement in stumpage return as compared to achievements under exclusive BIA management. However, Krepps and others are quick to point out that the evidence should not be taken to mean that BIA assistance is not needed or appreciated. What has changed is who is in charge of the decision-making. The BIA remains for most tribes a valuable provider of professional advice and technical assistance.

Infrastructure

As tribes pursue greater autonomy in forestry and other enterprises, there remains a huge challenge of infrastructure development needed to integrate the business of competition in a global marketplace with cultural acceptability within tribal societies. Separation of business and government, even though many Indian businesses are tribally-owned, has proven to be important for success to provide a political environment in which investors (large and small, tribal and non-tribal) feel secure. As noted above, substantial investment in milling infrastructure has occurred in recent decades since passage of PL 638 with positive result.

Ecosystem Management

Tribes are known to have been managers of natural resources for 10,000 years or more. In many areas of the United States, ecosystems found by early European settlers were not virgin wilderness untouched by the hand of man, but were instead forests altered through time by many generations of Natives that intensively burned, pruned, sowed, weeded, tilled, and harvested to meet their requirements for firewood, fish and game, vegetal foods, craft supplies, and building



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Ben Monaghan (at left), CIPV shipping manager, arranges the daily loading of rail cars and trucks of wood chips or finished products for market. Jeff Van Brunt, quality assurance manager for Colville Indian Power and Veneer (CIPV).

materials. Periodic underburning not only produced desirable vegetative conditions but reduced fuel accumulation that might otherwise sustain intense fires. A severe fire in a tribal territory would have meant not only loss of property, resources, and lives, but also long-term disaster for the well-being of the community. A fundamental land ethic, founded upon the survival imperative, has endured through millennia based in respectful interaction with nature in ways that conserve resources while providing for the needs of the people.

Today tribal foresters live and work on their respective reservations. For many, reservations are the homelands of their forefathers. Children and grandchildren have been and will be raised there. The fortune of families and tribes are directly tied to the social, environmental, and economic productivity of reservation lands. There is little incentive to compromise the future for short-term benefit

except as response to desperate circumstances. Managed tribal forests provide clean air, clean water, wildlife habitats, beautiful scenery, and other important public values as well as products, jobs, and economic contributions on and off the reservation that benefit all Americans.

Lessons for Sustainability

If we accept the premise that culture, sovereignty, and institutional infrastructure have been the fundamental elements required for success on Indian forests, then it seems logical to conclude that these same influences would be important for sustainable management of forests in other American landscapes. Evidence suggests that, in non-Indian forests, institutional infrastructure is in decline and public discussion of forest objectives is riddled with conflict. Such conflicts manifest themselves as battles between power elites for regulatory control that tend to devalue local communities' knowledge and practices and disenfranchise rural residents that otherwise

are sorely needed as stewardship practitioners.

All tribal and non-tribal forest managers are challenged by public demands for multiple values from forests, many of which are not readily reflected in the market place even though all forest management decisions carry a cost. Tribal forestry programs have inherited ancestral mechanisms for integrating market and non-market values. Cultural resources, for example, must be protected. The balancing of other questions in regards harvest intensity is ultimately determined by tribal council members that are elected by those that are directly affected by management of tribal forests. As is secured by tradition and covenant, all tribal members share the benefits and costs associated with resource management decisions on the reservation.

What we can learn from the tribal experience is that a major challenge for forestry in the 21st century will be

the connection of a transient American population with the natural resources that sustain them based in a common understanding of shared value and cost responsibility. A broader accounting of market and non-market forest values for redistribution of costs could be useful in absence of cultural imperative.

The rise of markets for organic foods, carbon credits, and green energy illustrate a desire on the part of consumers to share the cost of environmental improvements. Non-market valuation studies conducted at the University of Washington (Xu 1997, Mason et al 2003, Robbins and Perez-Garcia 2005) offer further evidence of recognition by governmental authorities and consumers that public benefits have value sufficient to warrant compensation to providers. Such compensation expands the marketplace and could function in the broader society as an economic surrogate for tribal cultural responsibility. Under such arrangement all providers, including tribes, must be equally rewarded for resource stewardship.

Conclusions

While it is not the intention of this paper to suggest that private or public forest sectors in the United States should or could remake themselves based upon a tribal model, there may, however, be benefit in recognizing organizational differences, learning what has proven successful, and adapting concepts of sustainability. It is also not the intent to paint a false picture of Indian prosperity by focusing this article on the recent successes of some tribal forestry programs. On many reservations, sustained economic development has yet to make a significant dent in a long history of poverty and powerlessness. However, the successes for some tribal forestry programs have been profound. The working relationship with BIA professionals has improved. Tribal control, infrastructure, and land holdings have expanded. In some states, vertically integrated tribal management and enterprise programs have become very competitive players in regional timber markets with economic benefit to

tribal and non-tribal citizens. Tribal forestry programs stand out as hopeful experiments in sustainable forest management, uniquely evolved from powerful and enduring cultural traditions that are most worthy of public support.

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The five miles of Klickitat River above this pool on the Yakama Reservation are especially significant spawning and holding habitat for culturally important salmon. Nonetheless, much of the Indian land drained by this river, including above this point, remains under very active, careful management.

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ARE INDIAN FORESTS AND FOREST MANAGEMENT IMPROVING?

A comparison of the 1991 and 2001 national assessments.

by **John Sessions**

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Indian Forests

Indian forests are unique. They are neither federally nor privately owned, but are held in trust by the United States and managed for the benefit of Indian tribes and individuals. Since Indian tribes are sovereign governments in their own right, management of Indian forests must comply with tribal laws and regulations as well as those established under applicable federal laws.

Nationwide, there are 302 forested reservations (199 contain timberlands and 185 contain woodlands), containing 7.7 million acres of timberland (5.7 commercial) and 10.2 million acres of woodlands (IFMAT, 2003). Indian forests

have been actively managed by tribal communities for thousands of years and remain a vital part of tribal life on reservations in every part of the contiguous United States and Alaska. Subsistence lifestyles and forest-derived foods and medicines are important to many tribal members. Indian forests often play a role in religious observance and artistic expression. Forest protection and use remain core values on forested reservations.

Timber production, non-timber forest products, grazing, and wildlife management provide revenues and jobs for tribal members and enhance the economic life of surrounding communities. Several tribes operate enterprises

to harvest or process forest products, provide management services such as thinning or tree planting, and maintain highly qualified fire crews. Increasingly, tribes are operating their own resource management programs to provide in-house expertise in forestry, fish, range and wildlife to complement traditional ecological knowledge within their communities.

Compared to some agencies and private

timber companies, Indian forests are relatively modest in size. Nationwide, approximately 500 of 2500 Indian forestry staff are classified as professional. The total annual harvest is approximately 600 MMBF compared to an annual allowable cut of 875 MMBF (89% timberlands, 11% woodlands). But Tribes can play an important role in the social and political landscape of forest management. Many tribes have lived in the same place for generations and have and continue to witness the consequences of their decisions everyday. Because of their dependence on resource utilization, tribes cannot afford to allow bureaucratic or judicial processes to paralyze decision processes. They have defined tribal constituencies and unique political and legal rights which enables them to act when the need or opportunity arises. Because of these unique factors—permanence and commitment to stewardship, the capacity to take action in a timely manner—Indian forests can serve as examples of sustainable forest management that provides numerous economic and cultural benefits while protecting the landscape ecology, ecosystem structure and function.

IFMAT I and IFMAT II

Section 312 of the National Indian Forest Resources Management Act (NIFRMA, PL101-630) requires independent assessments on the status of Indian forests and forestry every ten years.

Subsection (a)(2) of NIFRMA lists specific questions to be addressed in each assessment, including reviews of the funding, staffing, management, and health of Indian forests: This report compares the state of Indian forests,

opportunities for achieving tribal goals, and challenges to achieving tribal goals as reported by the Independent Forest Management Assessment Team (IFMAT) in 1993 and 2003.

The Interior Department selected the Intertribal Timber Council (ITC) to coordinate both assessments.¹ ITC recruited a panel² of nationally recognized forestry experts (IFMAT), including Dr. John Gordon of Yale, to conduct the assessment. The ITC helped facilitate access to timber tribes and federal



Dave Skinner

BIA forest planner Ken Borchert examines a “bluestain” ponderosa stump in the Log Springs area. Timely management action is very important not only when disease strikes, but in the salvage of fire-damaged wood. Bluestain enjoys a niche premium on the retail end of the supply chain, but takes a significant price hit at the producer end.

personnel, but otherwise left IFMAT alone to independently conduct its evaluation. ITC’s charge to IFMAT was simple, “Tell it straight. Tell it like it is. We want to know the good, the bad, and the ugly.”

IFMAT I visited thirty-three timber tribes and interviewed many federal and tribal personnel over the course of two years. Its report found that Indian forests varied widely as to their character, health, productivity, and management objectives; that Indian forests have the potential to serve as models for sustainability, and that pervasive underfunding and understaffing hamper management (IFMAT, 1993). Principal recommendations included increased funding to levels at least comparable to those provided for federal forest lands, and that trust oversight and trust management should be separated.

IFMAT I identified four specific gaps: **1)** a gap between the Indians’ vision of their forest and how it is managed; **2)** a gap in funding between Indian forests and comparable federal and private forests; **3)** a lack of coordinated resource planning and management; and **4)** a gap in trust standards and oversight. The report’s principal recommendation was that the trust relationship between the tribes and the U.S. be reconfigured by **a)** significantly increasing BIA Forestry funding so that it was on a par with funding provided for federal forests, and somewhat controversially **b)** establishing a separate and independent entity, apart from the Interior Department, to monitor and evaluate the sufficiency of BIA trust forest management. IFMAT I was distributed to the tribes, the Interior Department, and the Congress. As part of IFMAT’s

research, every forested tribe visited received its own confidential report on the team’s assessment of that tribe’s forest.

The findings and recommendations in IFMAT I, combined with those

¹ Established in 1976, the ITC is a nonprofit nation-wide consortium of Indian Tribes, Alaska Native Corporations, and individuals dedicated to improving the management of natural resources of importance to Native American communities. The ITC works cooperatively with the Bureau of Indian Affairs (BIA), private industry, and academia to explore issues and identify practical strategies and initiatives to promote social, economic and ecological values while protecting and utilizing forests, soil, water, and wildlife. Over 60 tribes and Alaskan Native Corporations currently belong to the ITC.

² IFMAT I members (current positions): Chair - Dr. John Gordon, former Dean Yale University School of Forestry and Environmental Studies; Vice-Chair - Dr. John Sessions, University Distinguished Professor, College of Forestry, Oregon State University; Dr. Joyce Berry, Dean, College of Natural Resources, Colorado State University; Dr. Jerry Franklin, Professor of Ecosystem Analysis College of Forest Resources, University of Washington; Dr. K. Norman Johnson, University Distinguished Professor, College of Forestry, Oregon State University; Dr. David Patton, Professor Emeritus, Forest Wildlife Ecology and Dean, College of Ecosystem Science and Management, Northern Arizona University, Dr. Jim Sedell, Director, Pacific Southwest Forest and Range Experiment Station, USDA Forest Service, and Ed Williston, Principal Officer, Ed Williston Associates (deceased). The resource team supporting IFMAT I consisted of Calvin Mukumoto, Principal, Mukumoto Associates, Jim Spitz, consulting forester, Sue Grainger, consulting forester, Karen Gabriel, consulting biologist, and Debora Johnson, planning supervisory forester, Oregon State University Research Forests.

contained in the reports provided to individual tribes, provided roadmaps for improving forest management on individual reservations which tribes could pursue on their own volition. Nationally, the report found that, despite significant challenges and funding levels only a third of those provided for the management of federal forestlands (Table 1, page 37), Indian forest lands have a striking potential to serve as models of sustainability.

IFMAT I has continued to contribute to the trust management of Indian forests and has established a benchmark against which change can be measured with a consistent set of criteria. When the Healthy Forests Initiative was getting underway early in this Administration, BIA Forestry program managers referred extensively to the report in policy discussions with senior Departmental personnel, including Secretary Norton. The report increased understanding of the scope and magnitude of the inadequacies of funding the forestry program and awareness of specific actions necessary to correct deficiencies.

The IFMAT II team included six of the IFMAT I members, and was again led by Dr. Gordon³. The background experience of these same members greatly streamlined the processes for IFMAT II and permitted a credible assessment despite the much more limited budget. More importantly, consistency in membership has provided truly invaluable continuity of experience and expertise from IFMAT I to IFMAT II, bringing their intimate first-hand familiarity with both IFMAT's analytical processes and the national trust Indian forest resource to the second IFMAT assessment and report. Budgetary constraints permitted fewer on-site visits by IFMAT II members than was possible with

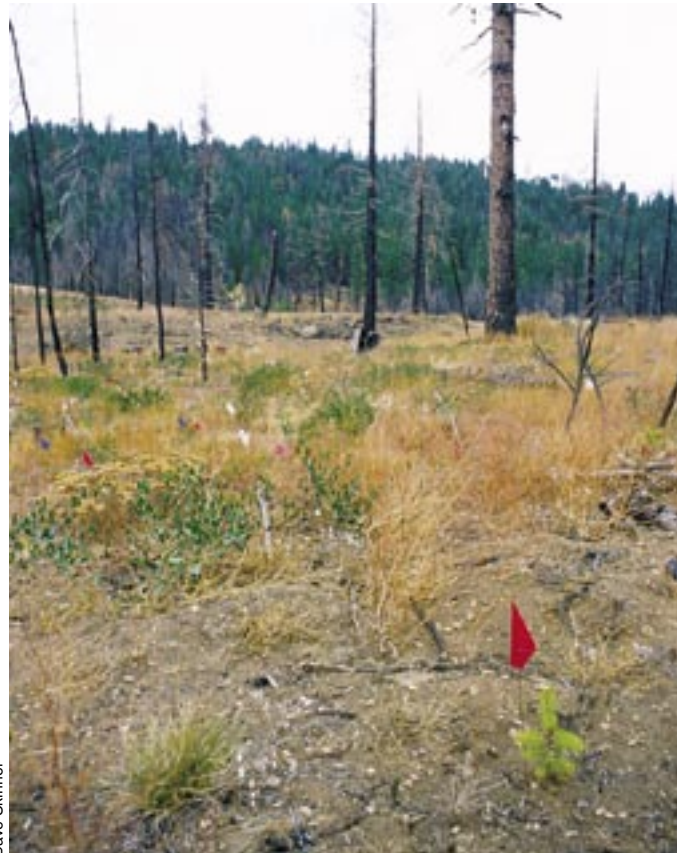
IFMAT I (30 vs. 33), but the information available through the forest certification readiness scoping assessments provided sufficient data to permit completion of the study. Many of the same reservations were visited in both IFMAT I and IFMAT II, to provide information that enabled the evaluation of progress and change between assessments. Partial funding for IFMAT II was obtained through with the assistance of the Pinchot Institute which secured grants from

IFMAT II found that progress had been made in closing the gaps identified in IFMAT I due to efforts of dedicated tribal and BIA resource managers and staff to address problem areas, but noted continuing gaps in funding, forest health, and independent oversight (IFMAT II, 2003). Significant progress toward sustainability in Indian forests was noted, including the continuing opportunity for Indian forests to serve as models of sustainable forest management to meet the needs of human communities.

The first gap, between the visions expressed by tribes for their forests and on-the-ground management is narrowing due to greater tribal participation in forest management and greater alignment between tribal and BIA approaches to management. Innovative management under the principles of adaptive ecosystem management is happening on many reservations, and the quality and quantity of tribal forest management staff are increasing.

The second gap, in funding between Indian and other comparable lands, particularly federal land, is narrowing due to increased funding to address fire issues in Indian forests, and a redirection of emphasis on federal forests. IFMAT I reported that federal funding provided for Indian forests (including fire funds) in 1991 was only about one-third the amount per acre as was appropriated for national forests. Congress still provides considerably less per acre for management

of Indian forests than for the federal forests held in trust for all Americans. Even greater funding is provided by some states and private industry, particularly in the West. IFMAT II reported that in 2001 Indian forestry received about two-thirds the amount per acre as was invested in the national forests (Table 1, page 37). This gap



Dave Skinner

The colored flags indicate plots that are being monitored in the Bear Butte Jeff Creek area. The issue here is the need for revenue/funding to support this monitoring process.

the Ford and Surdna Foundations to evaluate the readiness of Indian tribes to partake in the two leading third party forest certification systems (those sponsored by the Sustainable Forestry Initiative and the Forest Stewardship Council). The data collected by these assessments supplemented site visits by IFMAT II.

³ IFMAT-II members: Chair-Dr. John Gordon, former Dean Yale University School of Forestry and Environmental Studies; Vice-Chair-Dr. John Sessions, University Distinguished Professor, College of Forestry, Oregon State University; Dr. Joyce Berry, Dean, College of Natural Resources, Colorado State University; Dr. Jerry Franklin, Professor of Ecosystem Analysis College of Forest Resources, University of Washington; Dr. K. Norman Johnson, University Distinguished Professor, College of Forestry, Oregon State University; Dr. David Patton, Professor Emeritus, Forest Wildlife Ecology and Dean, College of Ecosystem Science and Management, Northern Arizona University; Mike Ferrucci, M.F., President, Interforest, LLC; Calvin Mukumoto, Principal, Mukumoto Associates. The resource team supporting IFMAT-II consisted of Michael Sterner (project manager), General Manager, Interforest LLC and Dr. David Meyers, Principal, Meyers Consulting.



Lake Quinault is a part of the Quinault Reservation. The mountains in the background make up much of the Colonel Bob Wilderness.

narrowed for two reasons: **1)** federal funding for forest management on national forests had been substantially reduced; and **2)** funding for fuels management, fire preparedness, and emergency stabilization activities on Indian forests had increased significantly in recognition of the fuel buildup on Indian (and other) forests due to past management practices and forest health needs. IFMAT II also found that improvements in program efficiency could be achieved by integrating funding for wildland fire hazard and risk abatement into a comprehensive forest management program to perform needed silvicultural treatments. While considerable increases in funding are required to address problems with the management of Indian forests identified by IFMAT II, the main organization impediment to realizing the promise of Indian forestry would require minimal expenditures—the establishment of effective, independent oversight.

The third gap, integrated management planning, the larger context for forest management plans, has improved markedly but funding and staff re-

sources are still inadequate to meet identified needs. IFMAT II found that only 40% of tribes had up-to-date forest management plans in 2001.

The fourth gap, in providing independent trust oversight, has seen the least progress on the ground. The BIA is still in the untenable position of “pitching and umpiring”, that is providing management services and advice while at the same time overseeing the adequacy of those services and advice. Both IFMAT reports recommend that a “triangulation” model be employed for trust oversight, involving tribal forest management plans and separation of operational from oversight responsibilities. Under this system, tribes would develop management plans based on tribal goals with the support, if needed, of BIA technical specialists. These plans would then be negotiated with the Secretary of the Interior, and when in place, would form the basis for trust oversight and performance evaluation by a commission independent of the Secretary and the BIA, in a manner consistent with tribal sovereignty and federal law. Responsibility for deliver-

ing the natural resource management program would be placed under a single manager for each tribal forest. IFMAT argues that the virtues of such a structure are: **1)** separation of the BIA’s role as manager and provider of technical information from its role as arbiter of the effectiveness of management; and **2)** establishment of goals and objectives appropriate for each tribe as the driving force of management plans and actions.

Forest Health

IFMAT II found that there has been overall improvement in the silvicultural practices and management of forest health issues (fire, insects, disease) on Indian forests since IFMAT I. Innovative silvicultural prescriptions and improved integrated management is occurring on the ground. Indian forest managers have made significant strides in addressing wildfire risk, but more acreage needs to be treated for hazardous fuels reduction. However, without concerted effort to combat forest health problems and institute sustain-

able management, there is considerable risk that Indian forests will deteriorate due to a combination of funding shortfalls, personnel shortages, and ecosystem-based problems (insects, disease, and fire).

Role of Tribal Forestry Programs and Staffing Needs for Specialized Expertise

Tribal members live intimately with all the results of their forestry activities so they pay close attention to the health of their forests and the effects of forest management activities on themselves and their environment. Much of the progress towards improved management practices on Indian forests is a direct result of the increased credence, acceptance, and prominence of tribal views and philosophies of stewardship in the care of Indian resources. The number of tribes that compact or contract to provide forestry services and functions on their own reservations has nearly doubled since 1991. Despite this, staffing for Indian forest management (both BIA and tribal), exclusive of fire programs, has declined 26%. Overall staffing for Indian forestry programs when fire is included has increased slightly from 1991 levels, and the percentage of workers with professional qualifications has increased. More tribes now employ specialists in wildlife biology, hydrology and landscape analysis. At the same time, BIA technical assistance staffing has significantly declined over the last decade. Tribes receive less assistance from BIA in forest inventory, management planning, marketing and economics. Key personnel are retiring or getting ready to retire; fire funding caused personnel shifts from forestry to fire that have not been entirely made up; and the supply of new Indian professionals is insufficient to meet demand.



Larry Workman

Aerial view of Taholah, the principle village and tribal center on the Quinault Reservation.

stimulate thought on new insights and ideas. Today, the scrutiny of the courts, Congress, tribes, and the Administration has revealed that the systems to administer fiduciary trust duties are broken and sorely in need of repair. Tribes are becoming more aware of the potential need for, and value of, independent trust oversight; the IFMAT reports have contributed constructively to the debate.

Federal Trust Responsibility

In the mid 1970s, self-determination became the official federal Indian policy. Until that time, the BIA had ignored tribal traditions, customs, and practices and managed Indian forests under non-Indian precepts of scientific management. Indian forests have paid a price as the character of the land and its resources have changed dramatically. Imminent threats of devastating loss from insects, disease, and wildfire are posed from both within and outside reservation boundaries.

For the past several years, the U.S. courts, the federal government and the Indian tribes have been intensively reviewing and debating the adequacy of the federal government's management of Indian resources and fulfilling its trust responsibility to tribes and their members. Both the first and the second IFMAT reports play a very significant role in that debate, because these reports are the only comprehensive, standardized, periodic, and most important, independent evaluations that have been performed for any Indian trust resource. At a time when the trust debate can become heated and skewed, the IFMAT reports provide a professional, analytical approach that can be measured against a similarly based report from ten years earlier.

The independence of the IFMAT reports observations and recommendations have provided a fresh perspective on the trust debate, and have served to

IFMAT II Recommendations

The value of the IFMAT process is not only that it identifies strengths, weaknesses, gaps from an unbiased, knowledgeable point of view, but also because it makes specific recommendations for improvement. As part of the IFMAT II process, each participating tribe was provided with a set of three confidential reports containing reservation-specific findings and recommendations: **1)** a Preliminary Evaluation Report from the audit team for the Forest Stewardship Council certification system; **2)** a Gap Analysis from the audit team for the Sustainable Forestry Initiative certification system; and **3)** results of IFMAT II's assessment of the questions mandated by NIFRMA. Each participating tribe is able to review these reports privately, through its internal processes, and implement such actions as it deems appropriate.

IFMAT's recommendations are not prescriptive mandates that dictate what must be done; rather, they represent the best advice that the panel can provide from their professional and independent assessment. It is left to the tribes, the Administration, and Congress to decide what path to take to improve the future of Indian forest management.

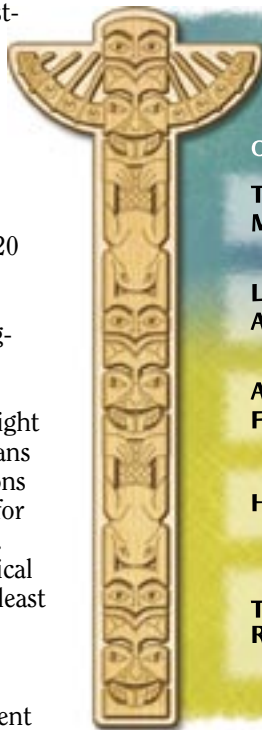
IFMAT II made six primary recommendations:

1. Bring per acre investment in Indian forestry to levels comparable to that available for similar federal, state, and private forests. An additional annual appropriation of \$120 million would be required.
2. Implement a management and oversight structure to insure effective trust oversight in implementing plans that reflect the visions of individual tribes for forest sustainability.
3. Maintain BIA technical services capacity at least at the 1991 level.
4. Accelerate development of Integrated Resource Management Plans.
5. Fund a "willing buyer-willing seller" program to enable tribes to consolidate tribal and allotment lands.
6. Continue the ten-year cycle of Indian Forest Management Assessments, with improved, continuous, and coordinated interim data collection techniques and provide adequate staffing for a consistent monitoring process.

In addition, IFMAT II provided eleven secondary recommendations and provided comments regarding two emerging issues: third party certification and opportunities for carbon sequestration in Indian forestry operations.

Prospects for the Future

IFMAT II found that tribal forests still have great potential to demonstrate sustainable forestry and to increase their benefits to tribal members. If several key funding and organizational problems can be solved, Indian forestry has a bright future and an important role in informing American and world forest management policies and practices. Increased investment in Indian forestry is needed. Such investments would yield immense future benefits in healthy forests, environmental protection, and available timber that would benefit all Americans as well as in flourishing tribal enterprises



Comparison of Funding & Revenues for Indian Forests

Owner		2001		1991	
		Indian	NF System	Indian	NF System
Total Integrated Mgmt. Funding	w/o fire (million \$)	82.3 (50.7)	1,815.6	81.5 (52.6)	2,900.3
	w/ fire (million \$)	191.4 (167.9)	2,616.4	105.5 (81.5)	3,312.1
Land Base Acreage	Comm. (million ac)	5.7	77.8	5.6	77.8
	Total (million ac)	17.9	191.0	16.0	191.0
Average Funding	w/o fire (\$/ac)	4.60 (2.83)	9.51	5.09 (3.29)	15.18
	w/ fire (\$/ac)	10.69 (9.38)	13.7	6.59 (5.09)	17.34
Harvest	Total (million bf)	605.5	1,939	729	10,036
	bf/ac/year	106	25	130	129
Timber Revenue	Total (million\$)	85.9	177.7	117.3	1,505.4
	Avg. (\$/comm. ac)	15.07	2.28	20.94	19.35
	Avg. (\$/mbf)	142	92	161	150

Table 1. Comparison of funding and revenues between 2001 and 1991 for Indian Forests and National Forests (1991 data adjusted to 2001 dollars using CPI adjustment factor from 2001). Indian forest land bases referenced are commercial timberland and total timberland plus woodland acres. National forest total landbase includes about 3.0% national grasslands and other miscellaneous categories. Dollar values in parentheses do not include tribal contributions. (IFMAT-II, 2003).

and governments. Federal appropriations must be substantially increased to address problems confronting Indian forests.

Congress (through Public Law 101-630) wisely directed the Secretary of the Interior to obtain an independent assessment of the status of Indian forests and their management each ten years. IFMAT is the only independent review of forest management activities covering all Indian forests. Independence by recognized experts is critical to credibility for the BIA, Congress, and Indian Tribes. The process of recurring, independent assessments using a consistent set of questions to provide structure and consistency over time has great utility in evaluating Indian forest condition, management, and discharge of trust responsibility.

Acknowledgement

This paper draws heavily from a paper developed by Dr. Gary Morishima (2004). The author recognizes Dr. Morishima's long time leadership, service and contributions to the Intertribal Timber Council, his invaluable review comments during preparation of the

IFMAT I and IFMAT II assessments and his ability to succinctly draw together the salient points of the two studies.

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THE YAKAMA'S PRESCRIPTION FOR SUSTAINABLE FORESTRY

by
Markian Petruncio, Ph.D.
and *Edwin Lewis*

Raymond Wiseman



Snowcapped Mount Adams in Washington's Cascade Mountain Range, on the western boundary of the Yakama Reservation. The Yakama Nation is widely admired for its innovative forestry program and its long standing commitments to forest health and restoration.

The Yakama Reservation in south-central Washington State is a magnificent cultural resource for the 9,800 enrolled members of the Yakama Nation. Abundant natural resources provide practical opportunities for sustainable management of fish, food and medicinal plants, forests, range, water, and wildlife.

The 1.4-million-acre Yakama Reservation includes agricultural and rangelands in the east, and 650,000 acres of forest and woodland mostly in the west (Figure 1). There is a pronounced precipitation gradient across the Reservation, which greatly affects the distribution and growth of vegetation. Annual precipitation ranges from seven inches along the Yakima River (eastern boundary) to 100 inches along the Cascade Crest (western boundary).

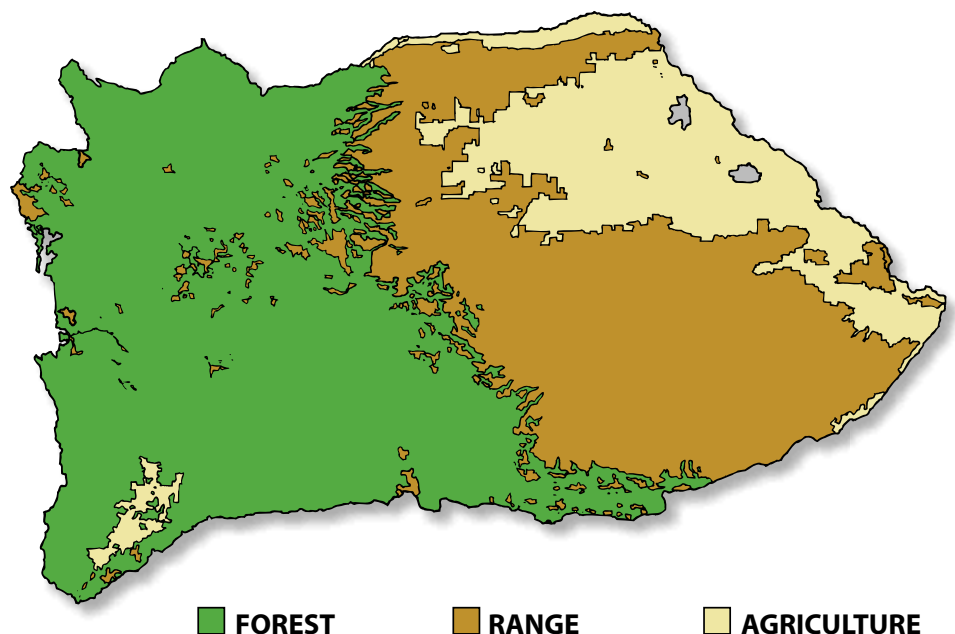


Figure 1. The Yakama Reservation Includes 650,000 Acres of Forest and Woodlands

The Yakama Forest is a place for spiritual renewal, hunting, fishing, and a traditional source of edible and medicinal plants. In addition, timber harvesting is an important source of revenue for the Yakama Nation, and employment for tribal members.

Unfortunately, the health of the Yakama Forest has declined over the last century—mainly as a result of livestock grazing, fire exclusion, and selective timber harvesting. Livestock grazing decreased the amount of fine fuels, which prevented surface fires from burning across the landscape, as they did historically. Suppression of natural fires also prevented fires from performing important ecosystem functions such as recycling nutrients, regulating species composition, and adjusting forest stand densities. Shade-tolerant grand firs and Douglas-firs regenerated in place of the large ponderosa pines that were removed in selective timber harvesting. Recent pest epidemics are symptoms of a major problem, that is, a forest that has gradually changed in species composition and density.

Four timber types make up most of the forest area: ponderosa pine (PP) 26%; pine-fir (PF) 23%; mixed conifer (MC) 32%; and true fir-mountain hemlock (FM) 15%. Lodgepole pine and other minor timber types occur on the remainder of the area. In general, these four forest types, PP, PF, MC, and FM, represent a gradient from open-canopy, low-density PP stands to closed-canopy, high-density MC and FM stands; PF stands are intermediate in density.

Timber inventories from 1934 and 1996 and timber type maps from 1934 and 1997 provide references for how the forest has changed in recent times. The 1934 forest inventory showed a standing merchantable volume of four billion board feet (BF). Sixty-two years later, stand densities increased and the standing volume increased to 11 billion BF, while in the same time period six billion BF was harvested from the Reservation.

A comparison of the timber type acres shows ponderosa pine stands decreased from 58% of the area in 1934 to 26% in 1997 (Figure 2). As Douglas-firs became established beneath ponderosa pines, many of the pine stands converted to pine-fir while, at the same time, some of the pine-fir stands converted to mixed conifer stands.

Mixed conifer forest types increased from 8% of the area in 1934 to 32% in 1997. The 1934 mapping also showed

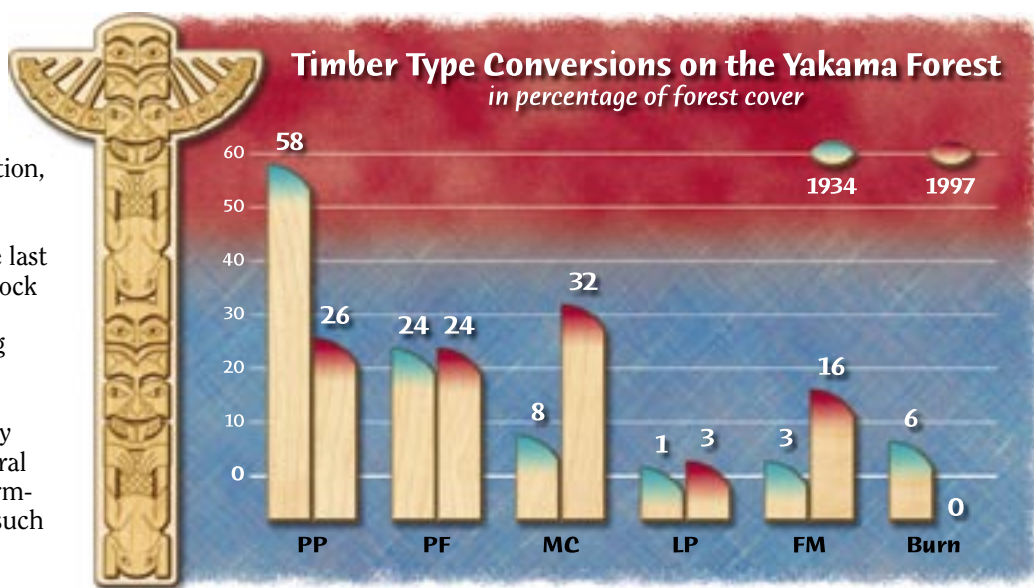


Figure 2. Timber Type Conversions from 1934 to 1997 on the Yakama Forest.

PP= ponderosa pine; PF= pine-fir; MC= mixed conifer; LP= lodgepole pine; FM= true fir-mountain hemlock; and Burn= the 1934 survey showed 36,380 acres of burned-over areas that have since regenerated.

large areas that burned in the early 1900s, for example, the 1911 Clearwater Burn. Many of these areas have regenerated and are now classified as true fir-mountain hemlock timber types.

As a result of the change in tree species composition and increased stand densities, competition increased in many areas and tree vigor decreased. Forested landscapes gradually became more susceptible to outbreaks of defoliators, such as the western spruce budworm and the Douglas-fir tussock moth. Landscapes are also now susceptible to attack by bark beetles, such as the Douglas-fir beetle and the mountain pine beetle. In addition, as a result of hazardous fuels buildup, extensive areas are at risk of being burned by unnatural, high-intensity fires.

A Forest Management Plan (FMP) for 2005 to 2014 was developed to guide the restoration of forest health and achieve the Yakama Nation's goals and objectives of sustainable forest management on the Yakama Reservation. The FMP describes the new management strategies to deal with the changes in forest conditions that have occurred over the last century.

The FMP is the result of the contributions of many Yakama Nation and Bureau of Indian Affairs programs including Archaeology and Cultural Resources, Environmental Quality, Fisheries, Forestry, Range, Roads, Soil, Vegetation, Water Code, Water Resources, and Wildlife.

A number of issues, concerns, and

opportunities were identified during the development of the FMP. The main topics included big-game habitat, forest health, old growth, revenue and employment, threatened and endangered species, and water quality.

The FMP uses an ecosystem management approach, which considers the sustainability of all resources. Emphasis is on achieving management objectives at the scale of sub-basins. Silvicultural prescriptions are based on forest habitat types, which are used to classify land according to potential vegetation and productive capability. A guiding principle for the silvicultural prescriptions is to manage for appropriate tree species and stand densities with regard to the carrying capacity of the land. Prescriptions are modified in areas of special concern, such as riparian areas, canyons, and areas that provide winter wildlife habitat.

Forest restoration implies that a forest will be returned to a prior condition. Nineteenth-century forest conditions on the Yakama Reservation appeared to be more sustainable than present conditions. For example, open pine stands were maintained in a healthy condition by frequent, low-intensity fires (Figure 3,, page 40). The forestry program is using historic species composition and stand densities as references for restoration of forest health.

Forest health describes the ability of a forest ecosystem to remain productive and withstand disturbances over time.



Figure 3. The open condition of an old-growth ponderosa pine stand

It is usually easy to recognize the differences between a healthy forest and an unhealthy forest. A healthy forest maintains a diversity of plants and animals, aesthetic appeal, and resource sustainability (that is, a dependable source of roots, berries, clean water, fish, vigorous trees, forage for animals, and clean air). In addition, a healthy forest is resilient to periodic disturbances such as drought, insects, diseases, fires, climatic change, and management practices.

An unhealthy forest is characterized by high levels of insects and diseases. Pest epidemics reduce productivity, increase tree mortality, and present great challenges to forest planners, silviculturists, and Tribal Council members. Maintaining forest health is critical for sustaining natural resources.

Sustainable forest management links environmental protection, economic prosperity, and social well-being in the forest management planning and decision-making process. The Yakama's goal for sustainable forest management is to meet the Yakama Nation's present needs and values without compromis-

ing the management options of future generations.

In the pursuit of sustainability, you have to answer the basic questions, "What resources do you want to sustain? Where do you want to sustain them? and How?" The primary goal of the FMP is to maintain the Yakama Forest in a healthy condition in order to sustain multiple resources, including cultural resources, such as camas and huckleberries, forests and woodlands, water quality, fish, and wildlife.

The ability to attain forest management goals was hindered by a western spruce budworm epidemic that lasted two decades. The western spruce budworm is a native insect that prefers to eat grand fir and Douglas-fir foliage. Budworm populations began to increase in the southwest portion of the Reservation in 1985 with a corresponding increase in defoliation of Douglas-firs and grand firs. Many stands of Douglas-fir were defoliated for several consecutive years, and subsequently attacked by Douglas-fir beetles, which resulted in high amounts of mortality. The large numbers of dead trees has greatly

increased the fire hazard. The risk of fire is greatest during late summer when fuels are dry and lightning storms move across the area. Now there is a greater likelihood of high-intensity, stand-replacement fires occurring where there used to be low-intensity, surface fires.

The number of acres affected by budworm increased steadily from 1985 to 1989. In 1990, 70,000 acres were treated with a biological control agent, *Bacillus thuringiensis* (Bt), which greatly reduced the budworm population. The stand conditions, however, remained favorable for the budworm and the population resurged in 1992 and continued to rise thereafter.

In 1998 a two-fold strategy was developed to deal with the budworm epidemic. The short-term strategy minimized economic losses by recovering the value of dead and dying trees and reduced hazardous fuel loads. The long-term strategy is to promote the development of a forest that will be more resilient to natural and human-caused disturbances. Silvicultural treatments are being used to change the conditions that are favorable for the spruce bud-

worm. In general, ponderosa pine and western larch are favored over Douglas-fir and grand fir, and stand densities are being reduced.

Timber sales were prioritized to treat areas that were most severely affected by the budworm. Between 1999 and 2003, silvicultural treatments were implemented on approximately 20,000 acres of budworm habitat per year. Also, in an effort to slow tree mortality, 97,000 acres were treated with Bt between 1999 and 2001. The epidemic peaked

in 2000 when the budworm defoliated trees on 206,000 acres (Figure 4). Defoliation then decreased dramatically, primarily as a result of the silvicultural treatments. In 2002, 1,207 acres were defoliated.

Timber harvesting on the Yakama Reservation began in 1944, when the Dry Creek Timber Sale was initiated because of a western pine beetle epidemic. Approximately nine million BF of ponderosa pine was salvaged over a three-year period. The annual timber harvest level peaked at 226 million BF in 1999 in response to the western spruce budworm epidemic and then decreased in the following years.

In 2004, 150 million BF were harvested. The projected annual timber harvest for the next ten years will start out at 158 million BF and then gradually drop down to 143 million BF by 2014 (Figure 5).

The Allowable Annual Cut (AAC) during the last ten-year

planning period was 143 million BF. Harvest levels remained below the AAC for the first half of the planning period. Harvesting was accelerated in the second half of the planning period to aggressively deal with the western spruce budworm epidemic.

The amount of pine harvested, as a percent of total volume harvested, decreased in recent years while the amount of Douglas-fir and grand fir harvest increased. This reflects the increased number of trees and growth of Douglas-fir and grand fir, as well as the deliberate removal of these species because they are the budworm's preferred food. The volume and species mix of future timber harvests is anticipated to change as a result of the increased planting of pine and larch, and as the emphasis of forest management shifts to establishing and maintaining uneven-aged stands of ponderosa pine.

Following commercial harvesting, precommercial thinning is done to regulate stand density and tree species composition. The Forest Development Program thins 5,000 acres per year, which provides jobs for tribal members. In some areas there is adequate natural regeneration of the desired species; however, if there is not a reliable seed source then the areas will be planted with ponderosa pine and larch. Forest Development plants 2,000 acres per year, which provides additional jobs for tribal members. The Fuels Management Program conducts controlled burns on 1,700 acres per year. Prescribed fire is beneficial by recycling nutrients, regulating plant species composition, and adjusting stand density.

The pathway to sustainable forestry requires proactive management. Forest health can be restored and maintained by promoting the development of more open forest stands composed of ponderosa pine and western larch on much of the forest.

Achieving the management goals of the FMP will ensure that the forest resource will be maintained as a source of spiritual renewal, food and medicinal plants, revenue for the Yakama Nation, and employment for tribal members.

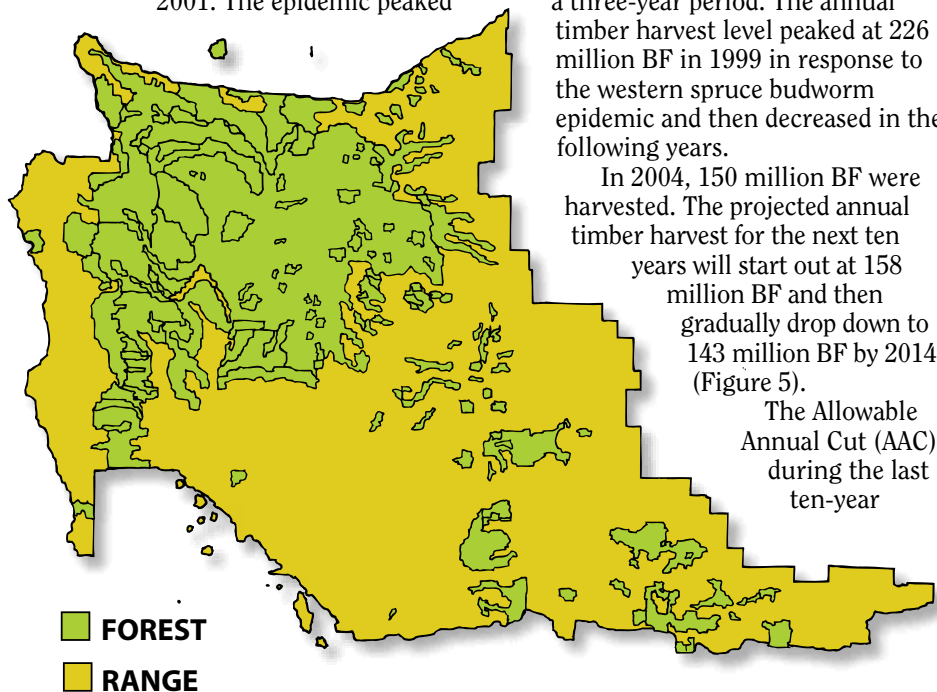


Figure 4. Western Spruce Budworm Defoliation in 2000 (205,584 acres) on the Yakama Administrative Forest

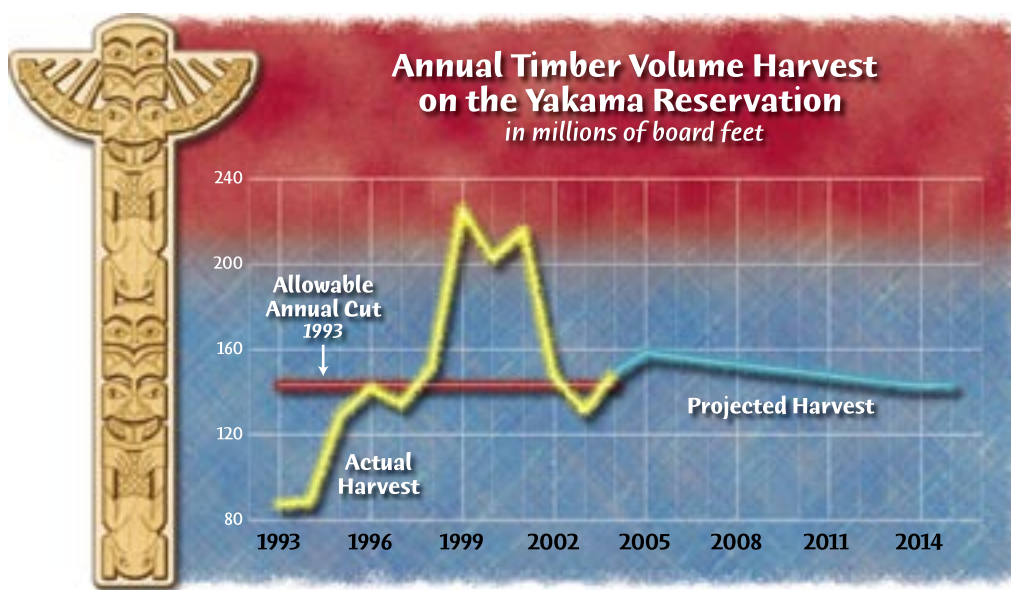


Figure 5. Annual Timber Volume Harvest on the Yakama Reservation. The red line is the 1993 allowable annual cut (143 MMBF); the yellow line is actual harvest (1993 to 2004); and the blue line is the projected harvest (2005 to 2014).

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THE FOREST IS IN YOUR HANDS

by
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Forest Manager,
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“**T**he forest is in your hands, take care of it for the people,” those are the words of my grandfather, Alfred Nolan Colegrove, Sr. To him, the forest was everything from a provider of foods, an abundant supply of water, soil, fish, wildlife, plants for medicines and ceremonial baskets, plants to eat, wood for warmth, wood for tools and supplies, sacred places, to just about everything needed for their existence. “Taking care of it” also means protecting the resources that our ancestors provided for us, also to provide goods for today’s use, and to make sure that future generations are going to have the same choices that we have today, so that they will be able to carry on our traditions eternally.

During my grandfather’s time, history and traditions were handed down orally. Our people spoke only the native Hupa language, which was also only taught orally. This method of learning in today’s world would seem quite hard, since we are so used to being lectured to, or we are so accustomed to learn by reading or seeing it on T.V. However, to them, this was a way of life so it came naturally. Our language basically reflects elements of nature and how to live the ways that were given to us by the Creator and taught to us by our elders. Given that we had our own language, which was a separate and distinct dialect from other tribes, our ways of living to some may seem quite complex. In many ways the order and manner of how our people

conducted their lives was very organized and advanced; however, one may also look at it as being so simple that it was brilliant. In fact, there was no pollution, no gang violence, no drugs or alcohol, no homelessness, no poverty; life was simply living religiously with nature. Our ceremonies and our prayers also reflect our connection to

the natural world. Each one of our ceremonies asks for blessings for our plants, our animals, our water and fish, our places, as well as our people’s health, along with balance and rejuvenation for the entire world.

Prior to the time when the influence of contact with outsiders was prevalent, we were basically stewards of the land, and from our beliefs we also had great respect and a unequivocal reverence for the land. Our religious beliefs about nature are founded on the concept that everything that occurs naturally has its place, its role, and its function in the world. For example, we believe that both plants and animals have a spirit, as well as our people. We also believe that certain places are sacred, some of them are as subtle as a mountain peak, others are places of prayer in the middle of the forest with the only noticeable feature is a small cleared area, while some of the main prayer areas are as majestic as Mt. Shasta. But of course, one major difference between European society and us is that we consider ourselves to be a part of nature and the things that we did historically in the forest were and are considered to be as

natural as the sun or the rain.

We tended and managed the forest with many tools that were created from nature, but the most effective tool was controlled fire. Fire was used to maintain food sources, forest types, control insects, manipulate and cultivate plants for medicines and other cultural uses. The use of fire as a



(Top) These men are resting between songs of the ancient Jump Dance. The Baskets in their hands are called “Notwich” in Hoopa, and are made from hazel, beargrass, maidenhair fern, and willow root. (Above) Redwood Dugout Canoes used for transportation along the Trinity River.

management tool was performed in a very controlled manner. For instance, it was only used at certain times of the year. Generally, the burning would be conducted after the initial rains in the fall. This was done to keep the intensity of the fires low.

The tending of the forest with the use of fire produced annual crops which provided the daily necessities of the people; but what also occurred, by conducting low intensity burns annually for hundreds of years, was that the condition of the forest was healthy and in balance. Healthy and in balance in this context means that under this type of regime the forest maintained a certain structure for millennia, and the forest was able to supply adequate amounts of goods to sustain the needs of a people. By using controlled fire annually, the forest was productive and resilient to catastrophic wildfires. The forests ability to withstand wildfire and still maintain many late successional, seral stage structural components, in today's world would render these types of forests quite healthy. When wildfires did occur in these areas the intensities were not the same as the controlled fires, but the wildfire intensities were much less than the stand replacing fires that we see throughout the west today.

Today, a hundred years later, the forest has changed significantly as a result of the BIA's assumption of land management for the Hupa people in the early 1900s. The BIA changed the way of life for my grandfather and his people, but it wasn't without a fight. When my grandfather and his people finally negotiated what is now known today as the Hoopa Valley Indian Reservation (HVIR), they had been prohibited from speaking their language, they had to be secretive about practicing their religion, and were also forced to become farmers of non-native crops. But perhaps the most atrocious act was to the land, when the BIA began mimicking the USFS and viewing all fires as bad, and extinguished them with a fury. Not only did they put out all fires, they made it a criminal offensive if Indians set fires. So, now it became a crime for Indians to manage the forest the way that they were taught and were supposed to do.

Courtesy of the Hoopa Tribal Museum



Nolan Colgrove, Sr.



(Top) These three caps are traditional basket caps that are worn by girls and women. The materials are hazel, willow, beargrass, porcupine quills, woodwardia fern, maidenhair fern, and also decorated with woodpecker scalps and dentillium. (Above) Waterfalls in the Mill Creek area. Many of these spectacular natural wonders are also areas of spiritual significance.

In the early 1940s, the BIA introduced commercial timber management and the enticing revenue that is associated with timber harvest. This led to thousands of forested acres being converted from old-growth Douglas-fir with mixed hardwoods to brush fields. Over the course of time, the forest alterations of what was once a healthy, functioning natural forest, has become overstocked, less healthy, produces less goods for the people and certainly the forest has become more vulnerable to catastrophic fires.

Which brings me to the challenge that we face today, "How do you find that balance in today's world and honor the words of my grandfather?" The balance in which I refer to is: how do we meet the new goals of the tribe for revenue generation, while still managing the forest to meet the cultural needs of the people. Our world that we live in today obviously has evolved to something much less than the world of my grandfather. Today, we have grown accustomed to revenue from the sale of timber and our needs for social life have evolved similarly to that of contemporary western society. This has put a tremendous amount of pressure on the Tribe to harvest timber to meet the needs of the tribal government. In fact, timber revenue for the last 40 years has been the life blood of the annual tribal budgets.

The HVIR has around 92,000 acres, of which nearly 80,000 acres are commercial forest land. The BIA managed and administered the forest began timber harvest heavily in the 1950s–1980s; typically AAC's would yield nearly 50–60 million board feet per year. Over this period they harvested and converted nearly 35,000 acres of our lands to commercial forest with little to no regard for cultural resources.

Asserting our Tribal sovereignty is the only mechanism that is allowing us to return to the type of management that we want for the land. The Tribe has Compacted under P.L. 103-413, 'Title IV' Tribal Self-Governance Act (basically a contract) with the U.S. Government, which allows us to govern forest management for ourselves. This was one of the first steps in trying to find the balance of competing demands. When the tribe assumed the responsibility for managing our own forest, we were able to craft our own goals for managing the forest within the BIA's P.L. 101-630, National Forest Resources Management Act. Within the framework of this Act and the myriad of requirements within NEPA, we were able to design standards and guidelines, management requirements, which help turn back the hands of time to meet the needs of the people. This certainly wasn't easy or painless.

When the tribe began the arduous task of developing our own FMP the

Reservation landscape was a mosaic of patches of old growth forest, young cut over stands from 0–40 years of age and natural young growth conifer or hardwood stands. Several key factors combined to drive the decision making process of the Tribal Council as follows:

1) Scoping efforts resulted in the Tribal Membership ranking protection of Tribal Culture as the number one priority, followed by fish, water, employment, economics, plants and wildlife, **2)** The Tribal economy is based on timber, and **3)** Unemployment is extremely high and jobs related to timber management and harvesting are very important to Tribal members. Alternatives proposed during the process ranged from heavy industrial forestry, which would maximize short-term profits, to maximum cultural protection which would provide substantially reduced income and jobs while heavily protecting fish, water, wildlife and plants. The alternative selected and implemented was a moderate intensity alternative which has significant protections for cultural resources, fish, wildlife and plants while producing moderate income and jobs.

The planning process began in July of 1991 and the plan was adopted in April 1994. A great deal of effort was expended on the scoping process and several tools were used to elicit Tribal member responses such as, public meetings, newsletters, questionnaires and an informative video tape which described each alternative. In addition, the planning process included an Interdisciplinary team of 13 natural resource professionals, a policy committee appointed by the Tribal Council and a cultural committee. Under the Tribal Plan many different land classifications were



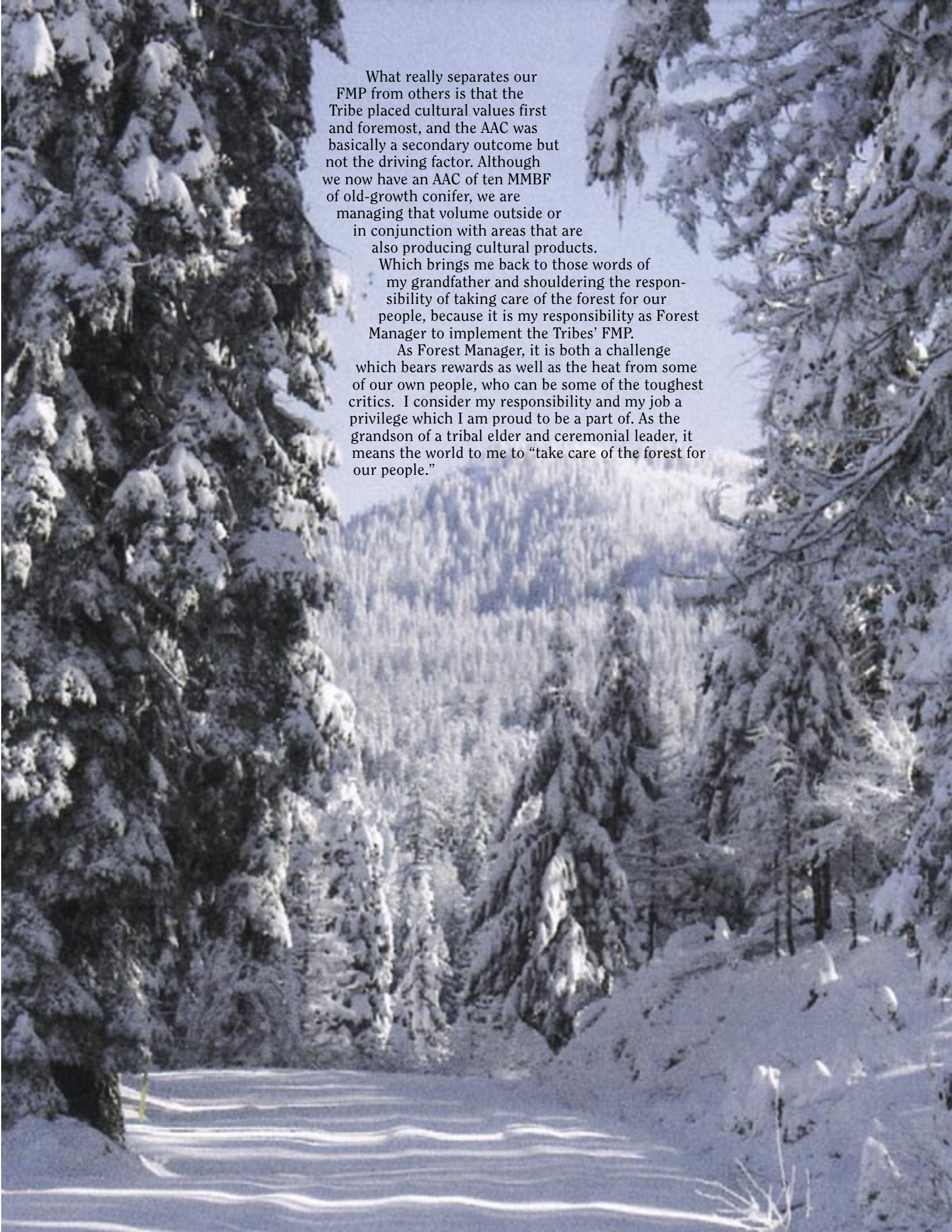
(Top) Traditional home of the Hoopa people called a "Xonta." It is made from Port Orford Cedar planks, which are fitted like a puzzle and contain no nails. (Above) The Trinity River flows from one end of the HVIR to the other. The fish that inhabit the Trinity are an important food source to the Hoopa people. The Tribal FMP contains many provisions for protecting the quality of this river.

developed which dictate the level of timber management intensity from no harvest (30.0%), and partial harvest (20.3%) to high intensity (44.3%) and areas dedicated to urban development and fee land (5.5%). This represents a major change from the days of BIA management where 100% of the

forested landbase was subject to intensive management. In addition, within intensively managed lands, including clearcuts, at least five large diameter green trees (>20 inches dbh) per acre on average are retained after logging. Past clearcutting left no large diameter trees standing and very little large down wood on the ground.

The tribe had to look hard at who we are as a people and simultaneously try to meet the economic needs of the government. As you can imagine, there are multiple viewpoints to just about every circumstance, and we certainly experienced many painstaking battles in the process of developing our own plan for the forest. Over the course of about four years we slowly developed what we now call the Forest Management Plan (FMP). We called upon my grandfather, other tribal elders and ceremonial leaders in this process for advice to help guide us with their wisdom and their compassion for the land. During this process, we actually began to incorporate the tribal culture back into the management of the forest. We were able to craft a plan that met the needs of a whole host of tribal values. Those needs of the culture such as plants for medicines, plants for cultural use, protection of habitat for cultural animal species, protection of streams for domestic use and fish habitat, and areas for ceremonial use, were all incorporated directly into almost all of the alternatives which were developed for the tribe to select.

Much to my amazement, upon reviewing what "meeting the cultural needs" meant in terms of taking land out of production for timber management, the tribe approved an FMP with a reduced harvest and income. For our Tribe, this was a historical and colossal action that was made for the HVIR forest.



What really separates our FMP from others is that the Tribe placed cultural values first and foremost, and the AAC was basically a secondary outcome but not the driving factor. Although we now have an AAC of ten MMBF of old-growth conifer, we are managing that volume outside or in conjunction with areas that are also producing cultural products.

Which brings me back to those words of my grandfather and shouldering the responsibility of taking care of the forest for our people, because it is my responsibility as Forest Manager to implement the Tribes' FMP.

As Forest Manager, it is both a challenge which bears rewards as well as the heat from some of our own people, who can be some of the toughest critics. I consider my responsibility and my job a privilege which I am proud to be a part of. As the grandson of a tribal elder and ceremonial leader, it means the world to me to "take care of the forest for our people."

SUSTAINING COMMUNITIES AND SUSTAINING OUR FORESTS:

The Forest Service and American Indian Tribes Working Together

by
Sonia Tamez
and
Susan Johnson
USDA Forest Service



Steve Dunskey, USFS

Margaret Baty points the way for Forest Service District Ranger Kirby Schwenk. Margaret, a skilled basket weaver and member of the Big Sandy Rancheria, generously shared her cultural knowledge with many, including U.S. Forest Service personnel whose responsibility it is to protect tribal cultural and historic sites.

Today, many National Forests in the West are neighbors to reservations and rancherias and other lands held in trust. Forests and Tribes share approximately 2,000 miles of border. Partnerships, forged from common threats and opportunities, are strengthening Forest Service (FS)-Tribal relations. Many in the FS and local communities, however, know little about the antecedents

of these associations. The two stories presented here tell us of change and persistence on the part of Tribes and the FS to move from conflict to collaboration.

The arc of FS-Tribal relations is shaped by a grand sweep of political and historical forces that gave rise to National Forests, carved from the aboriginal lands of hundreds of Tribes,

the creation of FS itself, and the establishment of reservations across the West. Federal forest reserves, later designated National Forests, were often created from lands ceded or seized from tribal governments under treaty making, Executive Orders and in some cases, termination and dispersal of Tribes and their lands. Many Tribes retained reserved rights on what are currently

national forests lands.

The federal government's approach to "dealing with the Indian problem" represents some of the darkest days for American Indian people. This history has been difficult for the United States government to reconcile and for American Indian people to forgive.

It is from this tumultuous beginning that the FS at first was compelled to accommodate Tribes who never gave up their cultural and legal ties to lands now managed by the FS. Now both the agency and Tribes are seeking partnerships with Tribes to manage the ancestral lands that are now part of national forests in order to restore forest health and sustain communities.

California Forest Service –Tribal Relations:

There are approximately 110 federally recognized Tribes that have aboriginal lands in California. Most of these Tribes in California have a land base of 300 acres or less. Nine Tribes have virtually no land at all (BIA personal communication 2004). This land base contributes to a strong reliance on access to and use of national forests that are the ancestral lands in order to sustain tribal communities, traditions and economies.

The tragic history of tribal land tenure in California influenced early relationships between the FS and Tribes. Native Californians lost lives and lands under Spanish, Mexican and American rule and Russian contact through military campaigns, enforced labor, disease, forced relocation, lack of access to and use of traditional areas, foods and materials, and outright genocide. When California was accepted as a State in 1848, California Tribes were not informed about the settlement of title to properties associated in the Mexican land grants and consequently lost additional lands.

A segment of the federal government, however, acknowledged for a time that tribal governments in California could enter into government-to-government relations with the US government. Three treaty commissioners were dispatched in 1851 to negotiate treaties



Larry Workman

This Olympic National Park trail follows a portion of Big Creek. This creek is the main spawning area of the Quinault Blueback, a type of sockeye.

and recognition in exchange for lands ceded by Tribes. Between March 19, 1851 and January 7, 1852, the treaty negotiators entered into 18 treaties with over a hundred Indian Tribes (the easier Tribes to locate, but less than 50% of the Tribes that existed at that time). However, on July 8, 1852 the US Senate, in response to pressure from the California legislature and business interests (including the gold rush which began in 1849), refused to ratify the treaties and went so far as to place then under an injunction of secrecy until January 18, 1905 (see Anderson, Ellison and Heizer 1978).

Establishment of reservations, through Executive Order, legislation, and outright purchases followed to address the "homeless Indian problem," but they obviously were not enough. In 1905, the unratified treaties were revealed and some efforts slowly started to find land. However, by 1906, over 1000 California Indians were still living on the recently designated Forest

Reserves (McLemore n.d.) after being decimated and dispossessed of their lands.

The 1910 Forest Allotment Act (25 U.S.C. 337) gave the Secretary of the Interior the discretionary authority to allot land to Indian people occupying national forests. Prior to the actual allotment, it was the Secretary of Agriculture who actually determined the suitability of land, deciding whether the land was more valuable for agriculture or grazing (and could be allotted to a California Indian) or whether it was more valuable for timber (and could be retained by the FS). Few allotments were granted through this process (McLemore n.d.).

In 1928, Tribes were permitted to sue the federal government, with the California State Attorney General representing them for the compensation promised, but never delivered by the unratified treaties. Congress later took some action but it was decades before any compensation was made. In 1944 some Tribes were given 47 cents per acre for the lands that were appropriated, a sum that many Tribes rejected or noted as partial payment; no land was provided in the settlement.

By 1972, the Lands Claims cases were over. Subsequent periods of termination, land allotments, and policies of assimilation further exacerbated the loss of land. It was noted that:

"Today, in 1974, more care is taken about the trees growing on original Indian lands and now in National Forests than was ever considered for the original human occupants in the eighteen-fifties."

(Anderson and Heizer 1978:29.)

Given this history of loss, early FS-tribal relations were difficult. California Indian people, though no longer living on the forests tried to maintain some of the traditional land management practices such as cultural burning. However, FS fire policy prohibited many such activities.

Congressional action, such as the National Historic Preservation Act (1966) and the American Indian Religious Freedom Act (1978), required more federal consultation with Tribes

so that protection and management of culturally important places and activities could be considered. However, clashes over decisions that would affect sacred sites became more frequent as timber harvesting and other utilitarian uses became more dominant.

One such conflict eventually made it to the Supreme Court. In the late 1960s, the FS began constructing segments of the Gasquet-Orleans (GO) road through the “high country” sacred to the Hoopa, Karuk, Tolowa and Yurok Tribes. The GO-Road was planned to facilitate logging and timber transportation. The Supreme Court ruled in favor of the agency, but subsequent legislation resulted in “no go” for the GO-Road and a turning point for the agency and Tribes in the area.

Years later, the FS and Tribes are collaborating on the protection of the high country and elsewhere. Over 30 agreements are in place in the region to have tribal governments, traditional practitioners and others with cultural expertise working with and advising the FS on the management of this area.

In the Sierra, the Record of Decision on the Sierra Nevada Framework has nine major commitments to over 30 Tribes for management of over 11 million acres. Tribal and Forest Service leaders gather periodically in Summits to discuss implementation.

Cultural burning has been reintroduced by fire specialists under the tutelage of weavers of baskets. A “Passport in Times” Project with the Indigenous Karuk Basketweavers has received national and statewide recognition for collaboration. The project has numerous benefits including cultural, educational, environmental, and economic. Volunteers camp for a week with California Indian basketweavers, helping process, and weave the natural materials that have been used for generations to create the world renowned baskets. The traditional vegetation for weaving grows best in forest areas that have been burned. Volunteers and basketweavers help manage the forests for future basketry materials by thinning heavy fuels and



Dave Skinner

Post harvest burning in Cunningham Creek watershed, Yakama Reservation. Work on the Yakama is broken down into projects of two-to-three years duration and 3 to 5,000 acres in size. Planners aim for a 15-25 year “project life” before the managed area requires another look.

constructing fire breaks in preparation for the controlled burns conducted by the FS.

The Maidu Cultural Development Group (MCDG) is restoring 2,100 acres on the Plumas, plant-by-plant. The MCDG is the first tribal group to have a project under the original Stewardship Pilot legislation of 1999. Since that time they are working to integrate traditional land management for forest restoration on the Plumas National Forest. The MCDG Stewardship focuses on transplanting edible brodiaea and camas, reintroducing basketry materials, pruning oaks to produce acorns and low cast burns.

New authorities such as the Tribal Forest Protection Act of 2004 support Tribes wanting to initiate projects on FS and BLM lands in order to defend their land base from fire, disease, and other threats. California Tribes are proposing programs and projects that would result in reintroducing traditional management of their ancestral

homelands and the Pacific Southwest Region is welcoming the prospects for collaboration in order to sustain communities and forests.

Black Hills–Tribal Relations

There is a long and involved history between the United States government and American Indians associated with the Black Hills of South Dakota and Wyoming. Historic conflict over ownership and use of the Black Hills lies at the center of this dynamic legacy. This heritage which was crafted over 125 years ago is a result of the United States’ policy to protect federal and states’ interests. When the European western expansion began in earnest, American Indian people were not citizens of the United States, yet tribes were acknowledged to hold the primary interest in vast areas of land. American citizens desiring to capitalize on “unlimited resources” ended up competing with aboriginal people and their title for the same lands but for different reasons. These conflicts grew more intense and serious. In search of a solution, the federal government dispatched persons responsible for conducting high

level negotiations between sovereigns. Specific to the Black Hills, the 1851 and the later 1868 Treaty of Fort Laramie were negotiated and signed by leaders of affiliated Indian Tribes. However, agreements set forth in these treaties were violated, setting in motion decades of legal actions against the United States.

Catapulting to today, the political and social landscape of the Black Hills continues to be influenced by the Fort Laramie Treaty of 1868 and subsequent acts of Congress regarding the Black Hills. Intense Indian activism emerged at Yellow Thunder Camp as a result of conflict over Native American applications for a special use permit to establish a camp for religious and cultural immersion. When the application was denied, a subsequent occupation of the area by activists occurred and several severe events took place. Yellow Thunder Camp remains as a significant experience in the collective history of tribal people associated with this landscape. Other defining events include the Supreme Court decision

affirming the Indian Claims Commission monetary compensation for illegal taking of the Black Hills, and numerous broken treaty promises. These more noteworthy events contribute modestly to the cultural texture of a larger social experience in South Dakota but are persistent and provide context for many indigenous peoples associated with the Black Hills.

When the Black Hills National Forest was created it inherited a set of complex and antagonistic perspectives about the land. These competing perspectives still exist and profoundly affect management activities on public lands. Today, through progressive laws, statutes, and Executive Orders previously mentioned, federal agencies are encouraged to engage the original stewards of this western landscape in open and respectful dialog and dealings.

Most, if not all, consultation meetings between Tribes and the Black Hills National Forest, Tribal representatives remind FS representatives that the sacred Black Hills, He'sapa, were never for sale, the Tribes never gave up their claim to He'sapa, and the money awarded as compensation will never be accepted. This is the defining element

to the government-to-government relationship between the FS and Tribes associated with the Black Hills. All entities acknowledge this position as an axiom and continue to work in favor of establishing mutual respect and building a functional relationship with the goal of providing quality leadership in the management of the land and natural resources on the Black Hills.

It is with an authentic desire to improve the management of the Black Hills National Forest/He'sapa that forest and tribal personnel have collaborated on and are implementing programs exemplifying a productive government-to-government relationship. They include: a comprehensive Memorandum of Agreement which has been successfully negotiated between the FS and interested tribes. This MOA is in a final review stage with signatories. This MOA establishes a Black Hills Tribal Advisory Committee comprised of multiple tribal representatives and is recognized to be the entity for conducting meaningful consultation on forest planning and project efforts; a tribal fuels reduction contract crew was created based on tribal government and forest support

and has been building skills capacity while working in He'sapa assisting with creating a healthy forested ecosystem; an all-tribal Black Hills Youth Conservation Corp is in its fifth consecutive year of employing tribal youth to assist in natural resources management activities and learn about natural resources management from natural resource professionals. These accomplishments and others can be attributed to genuine service leadership, open and respectful communications, and a willingness work on quality and lasting relationships. And until such a time when the question of ownership of the sacred Black Hills has been settled, a strong partnership will enrich forest management with a tribal-cultural connection.

The two examples discussed above, from regional and forest perspectives, illustrate how FS-Tribal relations have shifted from one of conflict to collaboration. Such collaboration is not a substitute for repatriation of land. However, it is an approach that the agency and Tribes are undertaking in order to sustain the lands and communities that depend on us.

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Larry Workman

Quinalt fishermen tend gill nets on a lower portion of the Quinalt River.

INTERTRIBAL TIMBER COUNCIL LAUNCHES TRIBAL FOREST PROTECTION ACT WITH GUSTO!

Successful ITC Collaboration with the Bureau of Land Management, Forest Service, and Bureau of Indian Affairs

by
Jack G. Peterson
and
James R. Erickson

The Tribal Forest Protection Act (TFPA) and Forest Stewardship Contracting are among the most beneficial authorizations ever given to American Indian Tribes by the United States Congress. These dual actions open the door for Indian Tribes to protect Indian lands from wild fires, insects, diseases, erosion, floods, and other threats—that originate on adjacent or nearby federal lands—by giving the Tribes the power to initiate projects to manage and reduce those threats on the adjacent federal lands. This is a profound and positive shift in Federal policy.

The Intertribal Timber Council (ITC) has launched the TFPA with real gusto in a productive partnership with the Bureau of Land Management, US Forest Service

and Bureau of Indian Affairs.

Soon after the passage of TFPA, ITC and tribal representatives participated in a training workshop on stewardship contracting sponsored by the Bureau of Land Management in Post Falls, Idaho. From this initial meeting came the strategy to sponsor similar training workshops specifically for tribes. Initially two workshops were planned—for Spokane, Washington (October 12, 2004) and Albuquerque, New Mexico (October 14, 2004). These initial workshops spurred additional interest for workshops resulting in sessions in Rapid City, South Dakota; Eureka, California; and Alpine, California. Each workshop seemed to gain momentum with increased participation and tribes expressing sincere

interest in engaging in projects with neighboring federal agencies.

These workshops provided the basic intent and procedures for Forest Stewardship Contracting under the President's Healthy Forest Initiative (HFI). Participants received a basic understanding of federal processes; and the regulations and procedures for participating in forest stewardship contracts. Significant ideas emerged from the early workshops as Tribal foresters, and Tribal fuels and fire managers, raised tough questions and posed sound ideas, offered alternative approaches, and suggested possible projects. During the workshops, the BLM and USFS promulgated their draft implementing policies. The Federal Agency policies now are finalized, and BLM and



Effective fuels reduction adjacent to the lands of the Viejas Band in the mountains west of Alpine, California. The devastating fires of the autumn of 2003 overran the lands of several Southern California tribes and bands, but spared the Kumeyaay people.

USFS are working closely with Tribes throughout the United States, encouraging them to propose TFFPA projects.

Several TFFPA projects now are on the threshold of execution through cooperative agreement or contracting under the new TFFPA—notably the Mescalero Apache Tribe working with the Lincoln National Forest and New Mexico BLM; Colville Confederated Tribes and Colville National Forest; Warm Springs Confederated Tribes, Oregon BLM and several adjacent National Forests; and the Shoshone-Paiute Tribes and Shoshone-Bannock Tribes and Idaho BLM. Other Tribally initiated projects are in various stages of planning and implementation.

Several other joint Tribal Federal Agency projects already are under way through existing authorities (cooperative agreements, assistance agreements, interagency agreements, etc.) that mirror the intent and purpose of the TFFPA.

For example, the Bureau of Land Management is collaborating with several Indian tribes in treating woodlands in New Mexico to reduce hazardous fuels, suppress wildfires and restore healthy, productive woodland and rangeland

ecosystems. These projects, which are being accomplished primarily through assistance agreements, are also providing economic benefits to the tribes through local employment and making wood products available to tribal members to be used in special forest products or resold as fuel wood. Key to success is that real benefits are derived by both parties.

Examples of this collaboration include:

- Assistance agreement with Cochiti Pueblo at the Kasha-Katuwe Tent Rocks National Monument and fuels reduction.
- Assistance agreement with Ramah Navajo tribe on fuels reduction and woodland products on Candy Kitchen project.
- Project planning on Forest Health restoration project with Zuni Pueblo Project planning, using Tribal Forests Protection Act for fuels reduction and possible stewardship contracting with Mescalero Apache Tribe
- Use of Santa Clara Pueblo and Taos Pueblo personnel to conduct prescribed burns on Taos Field Office BLM lands.
- Use of Taos Pueblo personnel to perform fuels treatment projects on BLM

lands adjacent to tribal lands. Use of the Eight Northern Pueblo “pool” for seasonal firefighters at Taos BLM.

Before we go too far, it is vital to understand the core purpose, history, and intent of TFFPA as developed by Congress. Key to our memory is that TFFPA was borne out of the terrible destruction and lessons learned from the wild fires and loss of life as wild fires ripped across ten reservations in Southern California in the fall of 2003. Both ITC and the Southern California Tribes, together with the California Congressional Delegation, moved the TFFPA through Congress, hopefully to prevent a repeat of the fall of 2003.

Following is a summary of the TFFPA:

**Summary and Analysis
TFFPA OF 2004 - Public Law 108-278,
signed July 22, 2004**

Summary:

The TFFPA authorizes the Secretaries of Agriculture and Interior to give special consideration to land management projects proposed by Indian Tribes on Federal Lands (Public Lands or

National Forest Lands) bordering or adjacent to Indian Trust Lands—in order to protect the Indian Trust Lands or communities from fire, disease, or other threats from Federal Lands.

Analysis:

1) To qualify, the Indian Trust Land (either tribal or allotted) must be in Trust or Restricted status and

- a) Be forested or have a grass, brush, or other vegetative cover, or
- b) Be burned-over.

2) The Indian Tribe will propose projects to take place on Federal Lands (National Forest System or Public Lands) that

- a) Border or are adjacent to Indian Trust Land. “Adjacent” is not defined and will be determined project by project.
- b) Pose a fire, disease, or other threat to the Indian Trust Land or Community. “Community” is not defined (“communities at risk” may give some guidance)
- c) Are not subject to some other conflicting agreement or contract.
- d) Involve a feature or circumstance unique to the proposing tribe. “Features or circumstances” can be related to treaties, or cultural, archaeological, historic, biological, or geographical factors, etc.

3) Projects proposed by an Indian Tribe are authorized under Stewardship Contracting or “such other authority as appropriate.”

- a) Other authorities might include “for pay” projects, such as fuels reduction.
- b) Proposed projects must be to “protect” the Indian Trust Land from “threats” from Federal



(Top) At the Viejas Conference, Jack Peterson emphasizes that the Tribal Forest Protection Act is “the first best chance for Tribes to control their natural resources destiny.” Jack has traveled throughout the West to jump-start the Tribal Forest Protection Act for the Intertribal Timber Council, several Indian tribes, and the Bureau of Land Management. He is the BLM’s point man in the West for the TFPA. **(Bottom)** The National Forest Service’s Darci Birmingham fields questions regarding the Forest Service’s policy for implementing the TFPA. Darci is the Service’s key Washington contact for launching the Act.

- Lands — and land restoration activities (i.e., post-fire).
- c) The size of a proposed project or its distance from Indian Trust Land is not limited by the law except that it must bear a justifiable relationship with protecting the Indian Trust Land and involve circumstances or features related to the affected Tribal Lands.
- d) The scope of tribally proposed projects includes “land management activities” “Land management activities” are not defined in the Act and are very broadly interpreted.

4) To initiate a project, an Indian Tribe formally submits a project proposal and

a request to enter into an agreement or contract with the local field office of the BLM or Forest Service.

- a) Agency cooperation in developing and considering tribal proposals is expected.
- b) Congress will track the agencies’ acceptance and implementation of Act.

5) Within 120 days of a Tribe submitting a request to enter into an agreement or contract, the BLM or Forest Service will issue a public notice of the intent of entering into an agreement or contract with the Tribe, and whether environmental review is necessary—or has been completed.

- a) There are no time lines in the TFPA for completing environmental or other reviews.
- b) The TFPA does not provide funding for environmental review.
- c) There are no time lines for review of an agreement or contract document.
- d) Contents of a proposed agree

ment or contract are to be guided by the authority invoked (Stewardship or other authority).

6) When the Forest Service or BLM evaluate and consider entering into tribal agreements or contracts, the agencies are expected to:

- a) Give special consideration to tribal factors including status of the tribe and the land, the federal trust, treaty and other rights, cultural, traditional, and historic affiliations, indigenous knowledge and skills, landscape and vegetation features, coordination between the tribe and the agencies, and tribal access to the land.

b) Recognize that the TFPFA establishes a strong presumption that tribally proposed projects are to be awarded to the proposing tribe and not to other entities.

7) If the Secretary (Forest Service or BLM) denies a Tribal proposal request to enter into an agreement or contract, the agency will issue a notice of denial to the tribe that

- a) Identifies specific factors in, and reasons for, the denial,
- b) Identifies corrective courses of action, and
- c) Proposes consultation with the tribe on how to protect the threatened Indian Trust Land and Tribal interests on the federal lands.

8) Nothing in the TFPFA is to reduce or affect Tribes' ability to otherwise take part in Stewardship Contracting or other contracting, i.e. fuels reduction, construction, etc.

9) The TFPFA requires the Secretaries of Interior and Agriculture to report to Congress in four years regarding implementation of the Act.

Note:

The TFPFA is discretionary (except the report to Congress). The Secretaries of Agriculture and Interior are not required to perform any of the TFPFA's authorized activities. However, the long established Trust responsibilities of the Federal Government and the clear Congressional Intent of the Act provide an otherwise clear mandate to the Secretaries. Indian Tribes fully expect the TFPFA to be implemented



Jerry Franklin

Regeneration harvest in mixed-conifer forest on the Warm Springs Indian Reservation (Oregon) within which residual old-growth ponderosa pine trees have been retained.

in a timely manner.

In June 2005, ITC sponsored a "Stewardship Contracting" workshop at its 29th Annual Timber Symposium in Visalia, California. This workshop brought together examples of successful contracts and tribes sharing their strategies to engage in this authority under the TFPFA. Examples were shared of successful projects with the Maidu Cultural Development Council and the Lassen National Forest in California where tribal ecological knowledge was implemented to address forest health issues.

Examples also were presented of how the Mescalero Apache Tribe and

the Warm Springs Tribes are developing strategies to address forest health issues on reservations and neighboring lands (federal and private), maintain and expand local enterprises to generate local economies, provide employment opportunities for local residents, reduce hazard fuels and establish local collaborative teams that can work constructively together. While the challenges are still many, the opportunities are even greater.

From the symposium the question arises—Where do we go from here?

The symposium findings and recommendations suggest that tribes must now engage their federal partners in developing and sharing successful projects.

Tribes need to develop clear project objectives, define strategies to meet objectives, develop the workforce to carryout objectives, analyze an implementation cost proposal,

develop project budget, submit proposals to the federal agencies, negotiate contract terms, and implement the final contract.

Federal agencies must engage the tribes by doing their homework—identifying areas in need of treatment, completing necessary NEPA clearances, working with tribes to identify projects and negotiating best value contract terms.

Jack G. Peterson, Senior Program Manager, Tribal Forest Protection Act, BLM, Boise, Idaho

James R. Erickson, Fire Technical Specialist, Intertribal Timber Council

FOREST MANAGEMENT PLANNING AND INTEGRATED RESOURCE MANAGEMENT PLANNING IN INDIAN COUNTRY

by
Timothy E. Moriarty,
David W. Wilson,
and
Robert P. Bizal

Resource planning greatly strengthens a tribe's opportunity to sustain tribal vision and resources of value. There are three general levels of planning: strategic, program, and project (*Figure FM-1*). The levels support each other. Resource program plans are tied (or tiered) to the strategic plan, and each program plan generates project plans which lead to on-the-ground activities.

A program-level Forest Management Plan (FMP) ideally operates under a strategic Integrated Resource Management Plan (IRMP). This allows for decisions made in the FMP to be consistent with overall tribal objectives. Both plans as they apply to tribes are discussed in the following sections.

Forest Management Planning in Indian Country

An FMP is the 'principal document' (25 USC 3103), between the United States as trustee and the tribal owners, which directs the management of reservation forest resources. The plan

Three Levels of Planning

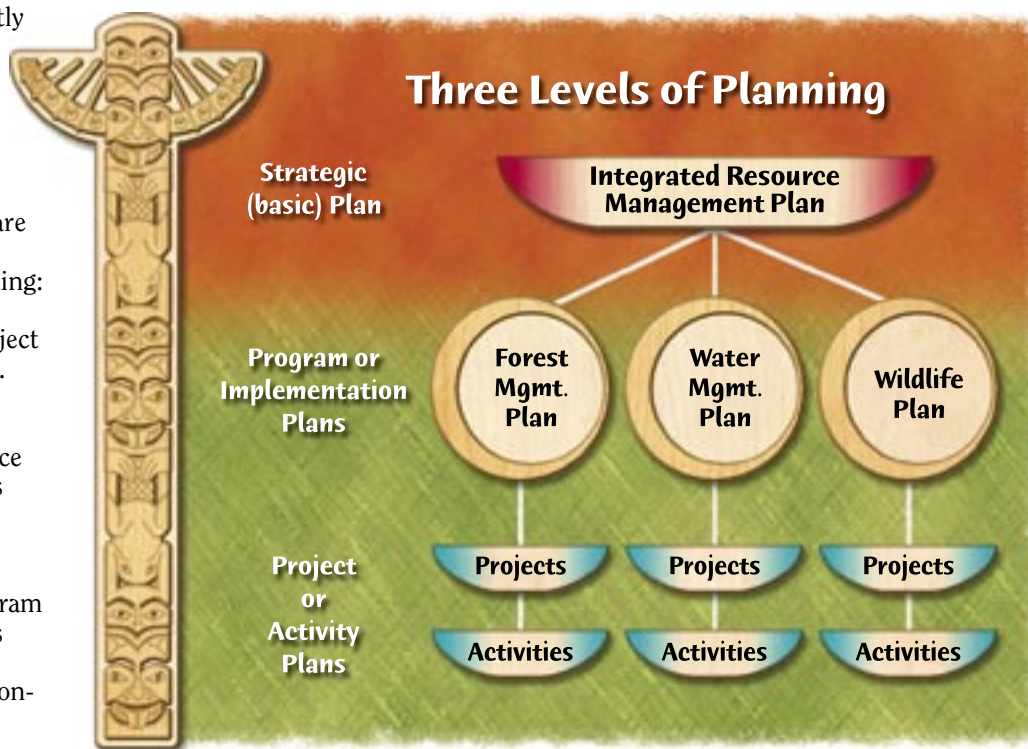


Figure FM-1

sets forth the trust standards for the management, monitoring and the protection of valued forest resources on trust lands. It is the key document which seeks to ensure the sustainability and health of the forest while meeting tribal landowner visions, goals and objectives. In addition, it is recognized by many as a key element in the attainment of tribal aspirations for self-governance and its importance has been acknowledged by the United States Congress through appropriation of special funding since Fiscal Year 1985. The Congress also showed its support when it formally mandated

planning in 1990 with the enactment of the National Indian Forest Resources Management Act (NIFRMA, Title III of P.L. 101-630). This Act clearly defined the BIA's planning responsibilities on Indian forest lands and increased our planning responsibilities by an additional ten million acres through the inclusion of all forest lands, not just commercial forest land.

Although support is provided by the Congress, the BIA continues to be challenged to fulfill the

planning mandate which is essential to protect trust resources.

Typically an FMP contains an array of information regarding the forest resources and the plan to protect and manage the forest. Information included in a plan generally consists of: a summary of the forest resources and the trends occurring on the forest, the allowable annual cut and schedule of harvest plans to restore and redevelop forest lands forest protection plans regarding fire, insect, disease and trespass tribal benefits resulting from implementation of the plan.

Status of Forest Management Planning

Since 1983 the Division of Forestry has annually compiled and reported forest management planning statistics in the *Status of Forest Management Inventories and Planning* report to track our accomplishments, deficiencies and funding needs. As titled, the report focuses on two specific functions - forest management inventory and forest management planning. Forest management inventories are used to generate and benchmark forest density statistics, measure and monitor forest change, determine forest growth and yield capacity, measure mortality and harvest, ensure sustained-yield management of the forest and to measure the forest's trend toward future desired objectives. The FMP documents the tribal landowners' desired goals, objectives and visions, thereby determining and driving the intensity of applied management actions. Report statistics for each function are displayed by Forest Category¹ and associated timberland² and woodland³ land classes which comprise forest land.⁴

As of September 30, 2004 the BIA recognizes approximately 18.7 million acres of forest land on 321 reservations. Of this acreage, 18.5 million acres are reported to be in trust status. Since 1995 there has been a net increase of approximately 1.9 million acres in forest land due to establishment of new reservations and better spatial data and analysis of imagery on existing reservation lands.

The trend for the number of forest inventories completed on timberland and woodland on reservations has remained fairly steady over the past four years. Inventories have been completed on 68% (141 of 207) of timber reser-

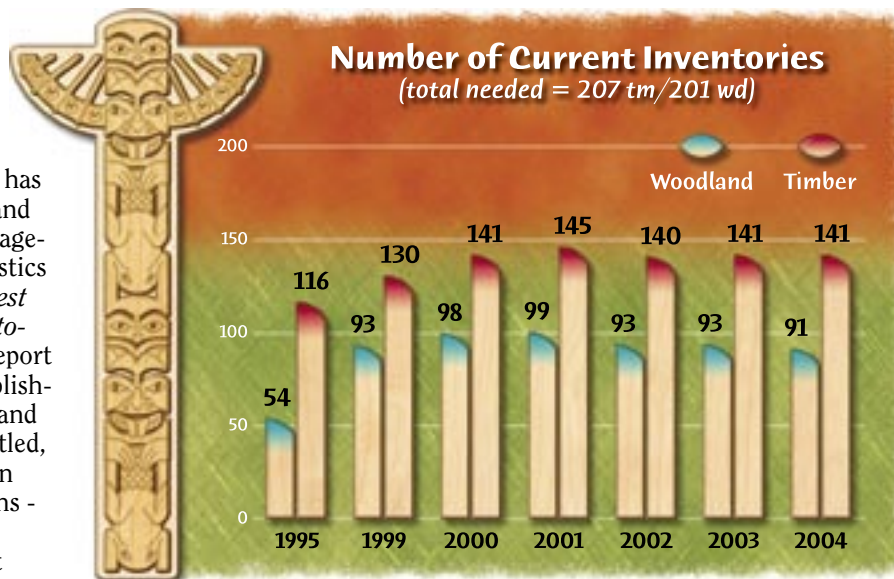


Figure FM-2



Figure FM-3

tions and 45% (91 of 201) of woodland reservations and account for 95% (7.6 of 8.0 million) of the timberland acres and 76% (8.0 of 10.7 million) of the woodland acres.

As reported, 80% (6.4 of 8.0 million)

condition of the forest resource will be conducted. This recommendation is being added to the Indian Affairs Manual (53 IAM Chapter 2 Management Planning) and will assist in meeting of our planning goals.

of timberland acres and 27% (2.8 of 10.6 million) of woodland acres are covered by approved plans, for an overall compliance of 50%. However, only 43% (89 of 207) of timberland reservations and 18% (36 of 201 reservations) of woodland reservations have plans. This is far below our goal and mandate of 100%. Despite these statistics, 85% of Category 1 reservations and 87% of associated timberland acres are covered by a current FMP. This indicates that most of the larger timbered reservations are maintained.

The Division of Forestry has set a target date of 2015 to have FMPs in place on all Indian trust forest land. To achieve this goal the Division has adopted the Indian Forest Management Assessment Team's (IFMAT II) December 2003 recommendation that plans will remain current until amended. To ensure plans continue to represent tribal goals, periodic reviews of forest management policies and the state or

¹ A system established in 1986 for the ranking of forest lands to establish emphasis and priority for program implementation.

² Forest land stocked or capable of being stocked, with tree species that are regionally utilized for lumber, pulpwood or veneer products. 25 CFR 161.1 Definitions

³ Forest land that is not included within the timberland classification, stocked or capable of being stocked, with tree species of such form and size to produce forest products that are generally marketable within the region for products other than lumber, pulpwood, or veneer. 25 CFR 163.1 Definitions

⁴ An ecosystem at least one acre in size, including timberland and woodland, which: Is characterized by a more or less dense and extensive tree cover; contains, or once contained, at least ten percent tree crown cover, and is not developed or planned for exclusive non-forest resource use. 25 CFR 163.1 Definitions

The Division of Forestry has also launched a Forest Management Planning Initiative to address the lack of forest management plans on Category 2, 3 and 4 forested reservations. Specific FMP guidelines, checklists and example templates have been developed to streamline and speed the planning process and to assist staff in completing plans on these reservations.

This streamlined process, while not directly addressing the IFMAT II recommendation that BIA technical services capacity be increased to at least 1991 levels, will greatly assist the Division in achieving its 2015 planning goals and mandate.

Integrated Resource Management Planning – An Avenue to Resource Sustainability

A Tribal IRMP is a long-range, strategic plan which unifies and harmonizes management actions applied to tribal natural resources, and other resources of value.

It is a tribal policy document, based on the vision the tribe has for its resources. The IRMP provides a planning avenue for sustaining a tribe's vision and resources of value. It describes management activities to be undertaken by tribal and federal resource managers, and is the umbrella plan for all resource planning and management activities.

As part of the BIA's long-term goal to help tribes assert their sovereignty, the Tribal IRMP Development Project assists tribes in developing strategic resource policies. The IFMAT II report recognizes this benefit to tribes and recommends accelerated development of tribal IRMPs. Project funds are available to tribes to assist them in starting or continuing IRMP initiatives.

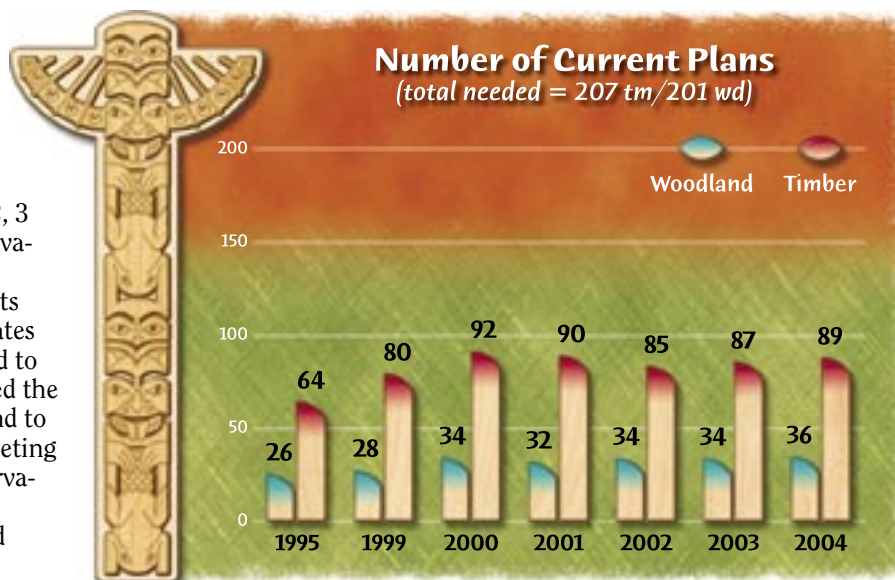


Figure FM-4



Figure FM-5

Development Project funding. Total amount awarded was \$4.8 million, of \$14.3 million requested. A new annual project appropriation of \$1.0 million beginning in Fiscal Year 2004 allowed funding of 21 IRMP proposals that year, and 25 in Fiscal Year 2005, compared to ten funded proposals in previous years. Twenty-seven tribes have implemented an IRMP, and 62 tribes are developing an IRMP.

Expression of Tribal Sovereignty

Unlike an FMP, which is mandated by federal regulation, IRMP creation is a tribal decision. Tribes may unilaterally determine the planning process, and at tribal discretion seek outside assistance to complete the plan. Tribal creation and use of their IRMP to develop and regulate land management facilitates self-governance and assures sovereign control of assets.

Integrated Planning for All Resources of Value

Crucial for successful IRMP development is an examination of relationships among the various natural resources and their uses, economic impacts and trends, cultural needs, and social forces. The ultimate IRMP goal is to balance natural resource management actions to reflect the economic, cultural, social, spiritual, and natural resource values of tribal members. The process identifies, assesses, and compares all resources before land use or resource management decisions are made. Potential decisions which affect the land are considered together, so that each decision's impact is weighed

The IRMP Development Project began in 1996, and tribal personnel from around the country have been heavily involved since then. Two trailblazing and pivotal publications were produced in 1998: *Guidelines for Integrated Resource Management Planning in Indian Country* (Second Edition, 2001) and *A Tribal Executive's Guide to Integrated Resource Management Planning* (Second Edition, 2005).

Proposal and Funding History

A total of 274 IRMP proposals were submitted during Fiscal Years 1998-2005. One hundred five proposals, representing 76 tribes, received

against the others. Because all possible uses are considered simultaneously, potential conflicts can be dealt with before they occur. An IRMP translates the tribe's vision into a concrete description of desired future conditions of tribal resources, and management actions to achieve those conditions.

Planning Requirements

The following are necessary for successful IRMP completion:

- Strong commitment of tribal executives
- Specification of the IRMP process scope and format
- Team (integrated) approach to planning and management
- Acceptance and commitment of program managers
- Effective communication lines
- A champion of the process
- Managerial and technical resources
- Support systems (inventory data, GIS, GPS, office automation)
- Public involvement
- Adequate funding

Successful IRMP

A successful IRMP is flexible and can be modified when changes in tribal needs, vision, goals, or objectives occur. Economic conditions, land or other resource acquisition, catastrophes, and new information may also warrant changes. The IRMP as a living document remains abreast of changing conditions.

The planning and management environment must be dynamic, incorporating an active review and modification process. The IRMP and other plans are evaluated to assure that they remain in balance with each other. If one plan is modified, a formal review process ensures that it stays in balance with other plans.

Successful IRMP's are functional across programs, departments, and

organizational lines. Isolation of programs and organizational structure is minimized; distance and physical separation of personnel are overcome; turf protection and resistance to a team approach diminish; programs are no longer exclusively project-oriented; conflicting methods and standards are eliminated.

Central IRMP Benefit

The central benefit of integrated resource management is better management: management in harmony with tribal members' vision for the future. A higher level of accountability by officials to their constituencies develops. Higher levels of participation and understanding of resource management and sustainability occur. The integrated approach leading to an IRMP results in a strong expression of tribal control over resources and further advancement toward tribal sovereignty.

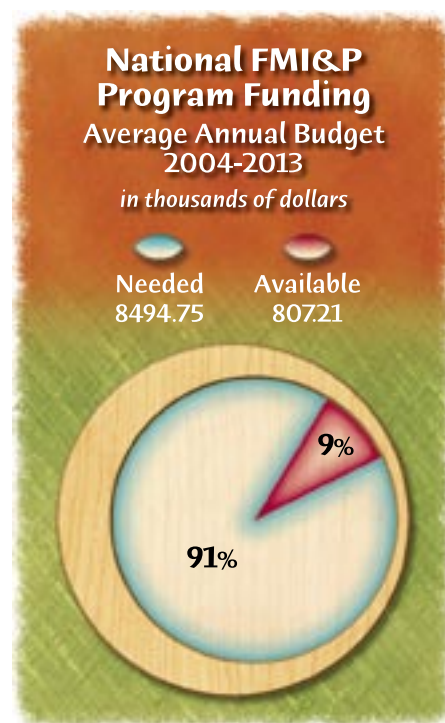
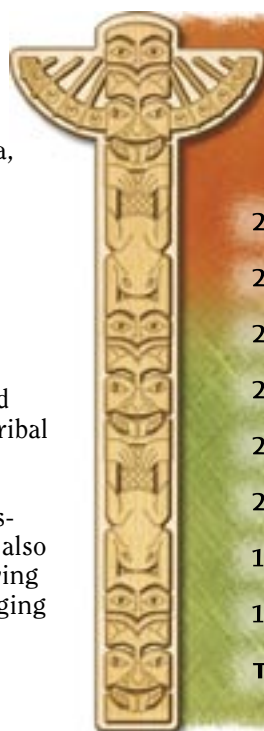


Figure FM-6



IRMP Proposals & Funding

FY	No. of Proposals		Funding Amount (\$)			
	Rec'd	Funded	Request	Award	Award %	
2005	29	25	1,379,000	1,158,000	84%	
2004	28	21	1,276,000	1,155,000	91%	
2003	36	10	2,314,000	457,000	20%	
2002	34	10	1,771,000	463,000	26%	
2001	42	10	2,146,000	416,000	19%	
2000	38	12	2,202,000	504,000	23%	
1999	30	10	1,477,000	425,000	29%	
1998	37	7	1,750,000	270,000	15%	
Totals->	274	105	14,315,000	4,848,000	34%	

Figure FM-7

Timothy E. Moriarity, Chief Forester, Branch of Forest Resources Planning, BIA.

David W. Wilson, Senior Forest Inventory Specialist, Branch of Forest Resources Planning, BIA.

Robert P. Bizal, National IRMP Coordinator, Branch of Forest Resources Planning, BIA.

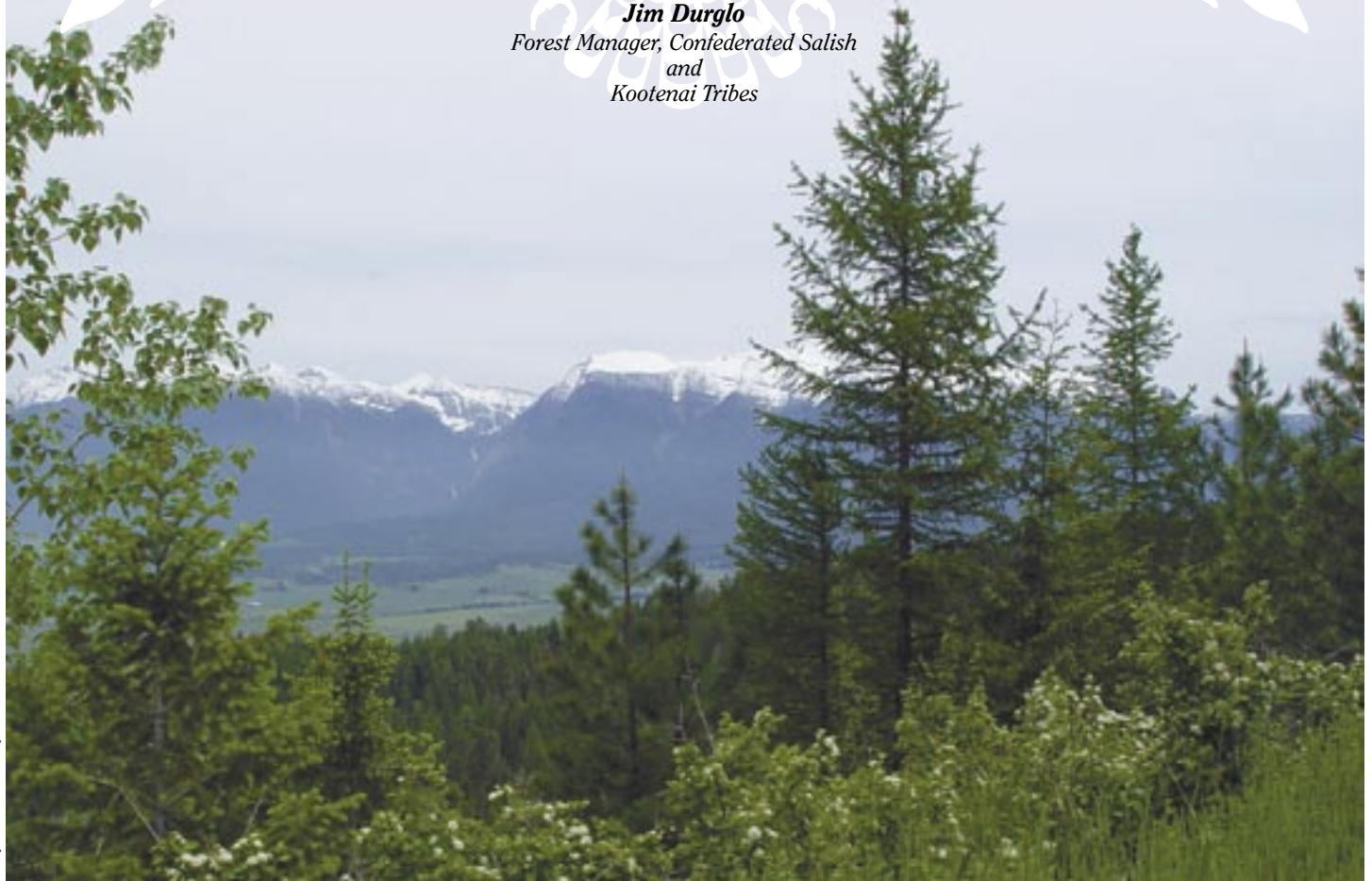
ECOSYSTEM MANAGEMENT AND TRIBAL SELF-GOVERNANCE ON THE FLATHEAD INDIAN RESERVATION, MONTANA

by

Jim Durglo

*Forest Manager, Confederated Salish
and
Kootenai Tribes*

Mary Charlo-Crumley



The south end of the snow-capped Mission Mountain range stands out behind the native wild rose bushes and western larch.

Nestled next to the Mission Range of the Rocky Mountains in western Montana, is the Flathead Indian Reservation, home to three Confederated Indian Tribes: Salish, Pend d'Oreille, and the Kootenai (CSKT). Today there are over 7,012 enrolled members of which about 4,545 reside on the reservation. In 1855, our leaders were forced to negotiate the Treaty of Hellgate. This established a 1.314 million acre reservation for the exclusive use and benefit of the CSKT. In the early era several historical events, including allotments and homesteading, resulted in over one million acres of reserved lands leaving trust status. Since 1935, the CSKT strived to regain its reservation. Today we are proud to report that approxi-

mately 61% of the land base within the exterior boundaries of the Flathead Indian Reservation, are owned and managed by the Tribes.

A Brief History

The Tribes understood that both Indian-lit and lightning fires shaped the forest. Here in the Northern Rockies, fire, more than any other factor except climate, shaped the structure of our forest. It determined the kinds and ages of trees, how close together they grew, and the number and types of openings that existed. These structural characteristics in turn, determined the kinds of plants and animals that lived here. The tribes also used fire to manage the forest where they lived. From the stories of

elders, the historical accounts of early Europeans, and the finding of modern scientific research, we know that Indians have been purposefully burning in the area for at least 7,000 years (Confederated Salish and Kootenai Tribes 2000).

Timber harvesting activities on the Flathead Indian Reservation began shortly after the signing of the Hellgate Treaty. These activities were limited only to the local Indians and the Catholic Jesuits. The priests built the sawmill and they and the Indians used the wood to build the missions (Historical Research Associates 1977).

The U.S. government played a key role in establishing forestry activities on the Reservation. While forestry projects escalated, the 1930s marked a turning

point, when the Indians of the area began to see more employment in the logging industry. The Indian Reorganization Act of 1934 motivated tribes to establish tribal governments in order for them to manage their own land. The CSKT were the first in the United States to approve a constitution and a corporate charter in 1935 (Confederated Salish and Kootenai Tribes 1994).

While the Tribes were seeking to come into their own, the Tribes and the Bureau of Indian Affairs (BIA) had logged almost every accessible acre on the Reservation, especially during the 1940s and 1950s (S. McDonald 2003). It is important to understand that a great amount of high grading had a detrimental genetic impact on the structure of the forest. Moreover, because the logging was uncontrolled and unsupervised, there was extensive soil degradation, poor road locations, and theft (Corse 2004).

The Reservation forests of the 1960s and 70s needed repair (Corse 2004). A new forest management plan, in 1962, slowly began to change the face of forestry on the Reservation. They reaffirmed that the forest had more to offer than just timber products.

With the adoption of the Forest Management Plan in 2000, the Tribes have chosen to designate 236,013 acres of the total forested area of 459,408 acres as administratively available. Administratively available are forested lands which are actively managed. Other forested acre designations include 166,383 acres as administratively unavailable and 57,011 acres as administratively restricted. The area that is unavailable includes the Mission Mountain Wilderness (MMW), South Fork Primitive Area, Lower Flathead River Corridor, the Chief Cliff area, and the MMW Buffer Zone. This is a significant measure, because it “reflects the economic and cultural needs of the Salish and Kootenai people (Confederated Salish and Kootenai Tribes 1993).”



Kootenai Culture Committee

Indian men over the age of 18 participated in CCC development of the Flathead Indian Reservation by building roads, telephones lines, bridges, lookout towers, etc. Left to right: Dave Mahseelah, Joe Antiste, and Joe Couture, 1930s.

This meant that the Tribes felt so secure in their resource management beliefs that they were willing to forgo a portion of their revenue producing resources and preserve part of the “area’s natural conditions in perpetuity” (Confederated Salish and Kootenai Tribes 1993).

Indians of the area lit fewer fires after the 1880s. Since 1910, the policy has been to exclude fire altogether (except for a limited amount of prescribed burning). The fire exclusion policy, as well as logging and grazing practices have brought about drastic changes in forest structure and composition. Recently the tribes have written a Fire Management Plan to allow wild-fires to burn for resource benefit, especially, since the basic precepts in the new Forest Management Plan acknowledge wildfire as an important ecosystem function.

Current Forest Management

It is essential to understand that managing Tribal lands is different than managing Forest Service or National Park lands. Tribal lands are held in trust by the United States for the benefit of the CSKT; they are not public lands. Management of these lands is performed under requirement of 25 CFR 163 and the laws and regulations of the CSKT. The CSKT establishes objectives for forest management which reflect an ecosystem perspective.

In 1995, the CSKT Forestry Department compacted with the federal government under PL 93-638. This allowed for the Tribes to play the leading role in forest management decisions on their land. The Forest Management Plan (FMP) of 2000, the first management plan written since the self-governance compact, is one method the Tribes will employ to secure their sovereignty.

Currently, the forest management plan is focused on ecosystem management and a modified restoration

approach. Forestry activities are driven by forest health concerns, forest stand structural characteristics and goals, and fire regimes for each of the identified landscapes. The forest management plan also includes a cultural, community, and ecological tone. Whereas previous forest management plans focused primarily on timber values. Because ecosystem management is a fairly new concept compared to past forest management plans, the Tribes are formulating their perception as to how this management strategy is most suitable for their land, culture, and People. Because past forest management activities were focused on timber production, the relationship with the Tribal community was less than ideal. However, the Tribal Forestry Department recognizes that they are managers of Indian resources, and they are striving to improve these relationships.

Community-based Ecosystem Management

In 2003, the CSKT Forestry Department began a community-based ecosystem management project with the Salish-Pend d'Oreille Elder Council, and the Kootenai Elders Council. The Tribal Forestry Department understands the importance of involving not only the issues of natural resource management, but also includes deliberate attention to the tribal cultural view when dealing with projects on Reservation lands. In the beginning of the project, the working groups determined there was a cultural gap. While the elders' time-honored points-of-view of the forest were unclear to the Forestry Staff, the technical jargon from the Forestry Program baffled the elders. The goals of the program were to improve the understanding and create dialog about the Tribes' unique cultural perspective on the management of the environment.

Therefore, the Forestry Department chose the elders councils, as two intact groups representing a wide array of viewpoints of the forest and the Tribal community, as their allies in order to attain landscape management goals.

Parts of the Flathead Indian Reservation Forest Management Plan (2000) were translated into the Salish and Kootenai languages. Native place names of proposed logging units were also identified. This project was intended to narrow the cultural gap between the Culture Committees and the Forestry Department. Through this work, elders of both the Salish-Pend d'Oreille Elders' Council and the Kootenai Elders' Council have depicted a unique viewpoint of the forest. Through each of the different languages and their literal translations, images of particular areas on the Flathead Reservation are por-



Kootenai Culture Committee

Early logging on the Flathead Indian Reservation. Left to right: Unknown non-Indian man, Joe Antiste, and Phillip Kallowat, 1930s.

trayed in considerable detail. All of the translations relate to an aspect of nature. Some of the place names refer to what grows there: the "structure" of the trees, geological formations, animals in that area, and there are also incidents or names of people associated with the areas. This suggests that language is an important praxis in understanding nature from the Native American viewpoint.

As the project progressed, the Forestry staff and the elders' councils began visiting Reservation landscapes. The Forestry staff used this opportunity to inform the elders of their plans and gain cultural input. This also dispelled any hearsay regarding controversial forest activities on the Flathead Indian Reservation. The elders also hosted field trips sharing areas of cultural significance allowing the Forestry staff the tools to adjust their implementation of

ecosystem management. The working groups certainly gained an improved understanding of critical issues by all groups. This project also instilled better planning and management decisions.

The CSKT have recognized these issues in their homeland, and they have asserted their sovereignty and self-governance in many ways. Self-governing the Reservation forests is quickly becoming another victory. As the CSKT develop their rules and regulations for guiding decisions concerning natural resources, they are realizing the importance of inviting the Reservation citizens to become involved in these processes. They have also developed a working process by acknowledging the importance of balancing cultural, spiritual, economic, social, and environmental values in managing the health of the forests on the Reservation through the Forest Management Plan.

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FORESTRY IN INDIAN COUNTRY: GENERATIONS ARE GROWING

by
Don Motanic
Technical Specialist, ITC

Omar Bradley stood up to talk about his holiday wishes in December 2003. He was grateful that a wish had been fulfilled. His daughter, Erica Enjady had become a young woman practicing forestry on the Mescalero Indian Reservation, where she is an enrolled member.

Omar said, "When Erica was young, we would ride horses together in the forest and I hoped she would become involved with range management, to help our family livestock business. She didn't select range, but I'm glad she did become involved with natural resources by graduating from forestry school at Northern Arizona University."

I sat and listened to a father describe how he kept the connection between his daughter and her environment which included family, culture and natural resources. I've often wondered how successful Indian families involved with forestry kept growing their generations and I believe it's by sustaining their connections.

Forestry in Indian Country not only involves regenerating a sustainable forest, but for centuries the people living in the forests have been doing their own regeneration and returning to the land.

In Erica's case, she grew up in Albuquerque, New Mexico, but through Omar's wish, years ago, she returned to

the Mescalero Tribal forest through connections with family mentors, culture and natural resource programs that encourage youth to seek a degree in forestry. She's one of the few tribal members who has not grown up on the reservation, but returned with a professional forestry degree.

Omar and Erica's story provides an example for the importance of connecting people with the land and how the tribes have sustained their forests by structuring their assessments, which focus on the tribal people. Their story will help illustrate the difference between forest sustainability for Indian forestry and other parts of the United States.

Sustainable forestry in the United States has been measured through the Montreal Process's Seven Criteria, but Indian forests have been assessed through its own eight mandated tasks by the 1990 National Indian Forest Resource Management Act (NIFRMA).

The criteria from the Montreal Process includes:

1. Conservation of biological diversity;
2. Maintenance of productive capacity of forest ecosystem;
3. Maintenance of forest ecosystem health;
4. Conservation and maintenance of soil and water resources;
5. Maintenance of forest contribution to global carbon cycles;
6. Maintenance and enhancement of long-term multiple socio-economic benefits to meet the needs of society; and
7. Legal, institutional and economic framework for forest conservation and sustainable management.



Omar Bradley, Erica and baby girl.

NIFRMA eight mandates include:

1. An in-depth analysis of management practices on, and the level of funding for, specific Indian forestland compared with similar federal and private forestlands;
2. A survey of the condition of Indian forestlands, including health and productivity levels;
3. An evaluation of staffing patterns of forestry organizations of the BIA and of Indian tribes;
4. An evaluation of procedures employed in timber sale administration, including preparation, field supervision, and accountability for proceeds;
5. An analysis of the potential for reducing or eliminating relevant administrative procedures, rules, and

policies of the BIA consistent with the federal trust responsibility;

6. A comprehensive review of the adequacy of Indian forestland management plans, including their compatibility with applicable tribal integrated resource management plans and their ability to meet tribal needs and priorities;
7. An evaluation of the feasibility and desirability of establishing minimum standards against which the adequacy of the forestry programs of the BIA in fulfilling its trust responsibility to Indian tribes can be measured; and
8. A recommendation of any reforms and increased funding levels necessary to bring Indian forestland management programs to a state-of-the-art condition.

If you look at the difference between the two assessment systems, you will notice that the Montreal Process has only two out of seven criteria which focus on people. In contrast, the majority of NIFRMA's eight mandated tasks focus on the connection of people and community structure.

The Montreal Process has criteria six and seven which focus on society and the institutional structure, whereas NIFRMA has mandated task one, three, four, five, seven and eight which focus on the tribal community and their connection with the forest as a whole integrated forest system, which includes the people as a vital role, not separated from nature.

NIFRMA reflects the input from many tribal people over the years on how they would like to see their forest managed and assessed through a process that does focus on the connection between the forest and the tribal people for past, present and future generations. The generations reflected in the story carried on like Omar and Erica's families.

Erica has started her own family, a new baby girl, and I wondered what she thought her children should see the tribal forest in another 20 years, another generation beyond today. Erica said, "I want my kids to see the benefits of what we've been working on for several years." She wishes for a healthy forest and a structure, which will not "fall apart." Erica has watched other forests outside of the reservation without being managed and thinks they need to be taken care of and not turn into "shambles."

I asked Omar why his daughter seemed to use a lot of words like "falls apart" and "shambles." He said that the family has been involved with construction over the years, Bradley Construction, and that she has been exposed to the construction industry, which makes

sense on why she used these words.

The family's construction connection also made me think about how they used words that relate to connections and the forest. Erica said that the tribal people really don't value one thing in the forest, but multiple values of the forest. Like a house, the forest is not held or sustainability assessed by one nail, screw, or separate "value" fastener, but its how the tribal people make the connections to integrate those values to mold their sustainable forest over generations.

Like a house, the forest structure will be there and can be rebuilt after it becomes in shambles, but it's how

carefully the people mix the "value" nails and to sustain a forestry house into a forestry home. A forest can be a structure, but it needs several generations of people with functioning cultural values to become a sustainable forest "home." I think Indian forests have those values and assessment tools like NIFRMA eight mandated tasks to assess their sustainability.

The tribes have developed a law, NIFRMA that more accurately reflects the importance of making the people connection to assess the Indian forests and define their forest home. Its not one group, like one set of nails to hold

a house together, but a close community that shares common values through their language and culture which sustains the forest. The common values are shared through generations which will successfully sustain their forest for the future, as with the example of how Omar's connections for Erica has made the difference for her to be successful and now Erica will transfer those connections to her children.

Forestry in Indian Country—the generations are growing through connections with their people and the forest is not just a sustainable house but also a sustainable forest home.



Larry Workman

The Stalding Creek basin in the Olympic National Park affords protection for the upper reaches of the Quinault River.

A PROSPECTUS FOR SUSTAINING THE INTERIOR ALASKA FOREST PRODUCTS ECONOMY

by
Douglas Hanson
*Forestry Director,
Tanana Chiefs Conference*

If a tribe controls its wealth, then the tribe must control its economy” was recently quoted at the 29th Annual Indian Timber Symposium attributed to Ralph Minnick, Chief Financial Officer for the Warm Springs Forest Products Industry.

This quote can also pertain to a new partnership for interior Alaska.

Alaska’s Tanana Valley is the site of large tracts of timber within the boreal forest zone. Principal owners of these forests include the State of Alaska and Alaska Native Corporations. A partnership between Tanana Chiefs Conference, the State Division of Forestry and the Fairbanks Economic Development Corporation has been established to consolidate and disseminate forest

inventory and related information in an easy-to-read prospectus format. The aim of the prospectus is to introduce the resource to the forest products industry with the objective of having a wood manufacturing facility located in the valley. It is hoped that the hardwood resource as well as the spruce would be utilized.

The prospectus also provides an example of how an institutional framework has been created among owner-ships to recreate their economy. If a region controls the wealth, then it must create the regional economy. Interior Alaska has a wealth of resources.

The commercial forests of interior Alaska are composed of pure stands and mixtures of white spruce (*Picea glauca*),

black spruce (*Picea mariana*), paper birch (*Betula papyrifera*), quaking aspen (*Populus tremuloides*) and balsam poplar (*Populus balsamifera*). Large blocks of both public and private lands occur in the Tanana Valley. Most of the public forests are managed by the State of Alaska and comprise 2.94 million acres of commercial forest lands including 1.77 million acres within the Tanana Valley State Forest. Private lands are mostly owned and managed by eight individual Alaska Native Village Corporations and one Alaska Native Regional Corporation and include one-half million acres of commercial forestland.

These corporations were established across the state in 1971 pursuant to the

Mt. McKinley (or Denali, which means “the great one”) is the highest mountain peak in North America at 20, 320 ft. It is the centerpiece of the Denali National Park. The Denali area is a mix of forest at the lowest elevations, tundra at middle elevations and glaciers, rock and snow at the highest.

Alaska Native Claims Settlement Act (ANCSA). Through this act Alaska Natives claimed lands near almost 200 existing villages. Lands acquired under the act are fee simple properties and are not subject to trust restrictions as applied to Indian reservations in the lower 48 states. Twelve landowning Alaska Native Regional Corporations were also formed that own land surrounding and nearby to the Village Corporations. Within ANCSA, non profit corporations were also established to administer health and social service programs to the villages within their regions. Through ANCSA Tanana Chiefs Conference incorporated Doyon as its regional for-profit corporation. Tanana Chiefs Conference operates many programs under an Indian Self Determination compact and through its forestry program has completed forest inventories for the Alaska Native Corporations within the Tanana Valley. Below is a table showing net standing volume and allowable annual cut by owner and species group.

Current annual harvest levels on all ownerships within the valley are about ten mmbf with most of this volume consisting of white spruce. Of this volume less than one mmbf is being cut on Native lands. Historically, this harvest amount has ranged much higher when most of the cutting centered on gold mining activities which began in the early 20th century. Large amounts of wood were cut for heating, construction and fuel for sternwheelers. Numerous wood camps existed along the Tanana River to supply cord wood to the ships.

Efforts have been made in the past to utilize the forest resources of the Tanana Valley. One such effort explored the possibilities of developing a wood refinery for the production of ethanol



Franzi - U.S. Fish and Wildlife Service

Black Spruce in the Innoko National Wildlife Refuge northwest of Anchorage in the central Yukon River valley.

and other high value products. Although agreements were entered into for wood supply from various Alaska Native Corporations, private financing for the project did not materialize. More recent efforts have focused on using biomass from hazard fuel reduction thinnings to augment coal in electrical generation.

The utilization of small wood diameters of spruce and hardwood species would address many problems that are similar in nature to the lower 48 states. These include hazard fuel reduction costs, rural economic development, employment and wildlife habitat enhancement. As noted above, extensive wood utilization occurred in the valley during the early 1900s and probably peaked in the 1930s. Many of today's hardwood stands developed during this time period and now comprise 42% of the cubic foot volume.

These stands are mostly mature and are beginning to show signs of decline. Many of the stands now contain a conifer dominated understory which 1) increases the likelihood of a large and difficult to contain wildfire, and 2) decreases wildlife habitat for species dependant on early seral plant species, such as moose. Regeneration of hardwoods is also easier and less expensive than for white spruce since both birch and aspen are prolific seeders and reproduce from stumps and roots as well. Utilization of the forest resource will also provide a much needed economic boost to rural economies and spark interest in natural resource management for the younger tribal members.

It is hoped the prospectus will attract value added industries that can complement the existing small scale wood manufacturing industry. All wood products companies are welcome to explore the forest resource, however the focus is on hardwood utilization for products such as lumber, flooring or furniture. Log export to the lower 48 states or foreign destinations is not the intent because of the lack of economic stimulus and the small amount of export quality logs available. In many of the hardwood stands ten-inch diameter breast height trees only comprise 20% of the stand. Chipping of hardwoods is also encouraged to utilize the smaller trees and to augment the manufacturing process.

It is believed that through the partnership and combined efforts of the landowners a vibrant value added forest products industry can be developed in the Tanana Valley. Through proactive management of the forest resource many positive benefits can be achieved to sustain the interior Alaska forest products economy.

OWNER	Spruce Volume		Spruce aac		Hardwood Volume		Hardwood aac		Total Volume		Total aac	
Native	508 mmcf		2.9 mmcf		325 mmcf		3.1 mmcf		833 mmcf		6.0 mmcf	
	1,443 mmbf		9.1 mmbf		343 mmbf		3.6 mmbf		1,786 mmbf		12.7 mmbf	
State	1,190 mmcf		18.6 mmcf		917 mmcf		17.7 mmcf		2,107 mmcf		36.3 mmcf	
	3,365 mmbf		74.3 mmbf		504 mmbf		53.0 mmbf		3,869 mmbf		127.0 mmbf	
Totals	1,698 mmcf		21.5 mmcf		1,242 mmcf		20.8 mmcf		2,940 mmcf		42.3 mmcf	
	4,808 mmbf		83.4 mmbf		847 mmbf		56.6 mmbf		5,655 mmbf		139.7 mmbf	

aac=allowable annual cut, mmcf=million cubic feet, mmbf=million board feet

THE GIFT OF FIRE

by
Germaine White

"The modification of the American continent by fire at the hands of American Indians, Native Americans, or First Nations/People was the result of repeated, controlled, surface burns on a cycle of one to three years, broken by occasional holocausts from escape fires and periodic conflagrations during times of drought. So extensive were the cumulative effects of these modifications that it may be said that the general consequence of the Indian occupation of the New World was to replace forested land with grassland or savannah, or, where the forest persisted, to open it up and free it from underbrush. Most of the impenetrable woods encountered by explorers were in bogs or swamps from which fire was excluded; naturally drained landscape was nearly everywhere burned. Conversely, almost wherever the European went, forests followed. The Great American Forest may be more a product of settlement than a victim of it."

—Pyne, Stephen J. 1982. *Fire in America: A Cultural History of Wildland and Rural Fire*. Princeton, NJ: Princeton University Press. pp. 79-80.

"At this time (1878) the creek (the West Fork of the Bitterroot River) was thoroughly set with a growth of willows and very completely so on the south side. Since it has become part of the white man's domain and fires are less general and frequent, the large alder growth has very generally replaced these willows. It might be noted here that the Indians were great foresters, as all old-time prospectors will affirm. They left the forests to the tender mercies of nature. While the Forest Service spends millions of dollars battling against nature's force, the result is a tendency to a scrubby growth of timber and a fire trap."

—Frank Jaquette, an early settler in the Bitterroot Valley, reminiscing about Salish land management practices.

According to the traditional beliefs of the Salish and Pend d'Oreille of western Montana, in the beginning the Creator put X^{ix}'eyuł, the animal beings on the earth before humans. But the world was cold and dark because there was no fire on earth. The animal beings knew that one day human beings would arrive, and they wanted to make the world a better place for them and for themselves, so they set off on a great quest to steal fire from the sky world and bring it to the earth. The story reminds us that, while fire can be a destructive force, it is also a gift to us from the Creator.

As Salish and Pend d'Oreille people, our view of fire was and is quite different from the modern western view. In our tradition, fire is a gift from the Creator brought to us by the animals. We think of it as a blessing, that if used respectfully and in a manner consistent with our traditional knowledge, will enrich our world. This belief explains our long tradition (12,000 plus years) of spring and fall burning and of adapting to, rather than fighting against, lightning-caused fires.

Confederated Salish and Kootenai Tribes (CSKT)

For thousands of years Salish and Pend d'Oreille people have been lighting fires in the Northern Rockies for the benefit of plant and animal communities.



Researchers have documented dozens of reasons why tribes started fires (Lewis 1973). Prior to the 1850s, our ancestors burned the grasslands and forests to increase plant foods and medicines. They set prairies and mountainsides ablaze to increase forage for game animals. They used fire to create drivelines and game surrounds, improving their chances at hunting. They lit fires to open trails and to keep them groomed.

They employed fire in warfare, both offensively and defensively. They used it to communicate over long distances. They fire-proofed camps with it and used it to reduce the presence of rattlesnakes in their camps.

For thousands of years our people lit fires in the Northern Rockies, so much so they doubled the frequency of natural fire in many places (Barrett 1982). So profound was this influence that landscape ecologist Doug MacCleary has written “there is no question that enormous areas of the forests and grasslands we inherited were very much cultural landscapes, shaped profoundly by human action. The wildlife communities that characterized these cultural landscapes were in large measure products of thousands of years of human intervention. And it will take continued human intervention to maintain them.”

Little appreciated today is the fact that tribes had practiced the art of managing landscapes with fire for millennia. The contrast with modern land managers, whose use of fire goes back a few decades, could not be sharper. The Salish and Pend d'Oreille had a single person who had the responsibility

of overseeing the use of fire on the land. That person was called *Sx̣p̣aam*. He had an intimate relationship with and knowledge of fire because of the extensive burning that he did during his lifetime and because he had apprenticed under the *Sx̣p̣aam* who came before him, learning the knowledge that had been gained over many generations. Our knowledge about fire then was based on a collective, tribal knowledge that stretches back perhaps seven thousand years. So our people understood as well as any group of people could understand how fire works in natural systems and how to use it in a beneficial way.

Yet, once non-Indians arrived, tribal people were persecuted for lighting fires.



Andrea Boother, FEMA

Indian fire fighters play an important role in managing Wildland fire in the Northern Rockies.

A December 21, 1875, newspaper account in the Missoula Pioneer details how, at the beginning of November of that year, 183 lodges of Pend d'Oreille Indians were crossing the Rocky Mountains in the north-east corner of the territory. They were traveling east on a buffalo hunt when two of them were shot and killed by “the officers of the International Line” for setting a fire on the plains.

This was a beautiful landscape that early explorers entered. They saw the beauty, but misunderstood it. They saw Indian burning and reacted in fear, at times thinking, “the whole country was on fire.” They possessed little or no knowledge about the land and fire’s role. As settlements grew, non-Indians came to believe fire was a threat to them and the land. Nancy Turner said in *Indians, Fire and the Land in the Pacific Northwest*, “It is ironic that the landscape so appreciated by the early explorers and colonists actually were created by the very fires they feared and disliked.”

And while we have made progress in our understanding of the role of fire, we still have a long way to go. The daily journal accounts of Jesuits living in the Mission Valley in the mid to late 1800s also make vivid how frequent the fires were at that time. The fathers make frequent mention of fires and remark almost daily in the summer about the extremely smoky conditions in the valley.

Theodore Shoemaker who worked for the US Forest Service in the early 1900s wrote that “Prior to 1897, and even later in many sections, fires burned continuously from spring until fall without the slightest attempt being made to extinguish them.” Today, it is common for people to complain about the smoke from even one or two small prescribed



Prescribed burning on the Northern Cheyenne Reservation in Montana. Photo courtesy of Jim Roessler, BIA Rocky Mountain Region, Billings, Montana.

burns. Most of those people probably do not know that for thousands of years prior to the last century of fire exclusion it was common for summer and fall skies in Montana and elsewhere in the west to be heavy with smoke.

On the eastern side of the Flathead Reservation, which is home to our tribe, the Mission Mountains rise some seven thousand feet above the valley floor. They form a parapet, a ragged wall of peaks that hold snow much of the year. Below that snow, the slopes are densely timbered. But that blanket of timber is a relatively recent development. Photographs taken from the late 1800s to well into the 1930s show a mountain range that would be unrecognizable were it not for the familiar skyline formed by the mountaintops. In some of the earliest photos, it is apparent that a person could have walked from the bottom of the range to the top without ever passing beneath a tree. Ribbons and patches of trees separated enormous openings created by fire. Today, it would be impossible to travel any distance at all without being under a dense canopy of spruce and fir and larch and pine. Tony Incashola, one of our Tribal elders tells of taking his grandmother into the Missions to pick berries. This was after nearly one hundred years of excluding fire. They looked for the place their family had traditionally picked for generations. But the trail had

grown over, the way was impassible, and the hillsides above, once open and thick with huckleberry, were now heavy with timber, the berry bushes gone.

The story is emblematic of what has happened throughout our aboriginal territory. Many of our traditional medicine and food plants that depend on fire are now difficult to find, while just three, even two generations ago they were plentiful, and many Salish and Pend d'Oreille families harvested them spring, summer and fall. Camping and hunting places that we know were once open because their Salish names describe them that way are no longer recognizable. They are now crowded with trees.

On my last trip into the Bob Marshall Wilderness Area with one of our tribal elders, Harriet Whitworth, we followed the trails she had followed seventy years previous with her mother and grandmother, trails her family had followed for multiple generations. When we arrived at Big Prairie on the South Fork of the Flathead River, Harriet described what it was like when she was a little girl. She said it was a big, open, park-like area where there were enormous ponderosa pine trees, an abundance of grass, and many animals. The place name in our language, *lq "lq "lex"*, describes the area as having many clearings, a series of prairies in one place, and Harriet talked of how beautiful it was when she was a child.

Now there is only a little bit of a camp and small prairie or meadow left, and the big pine trees are crowded with Douglas-fir trees. Being there in that place and listening to the stories of how it used to look just a single elder's lifetime ago showed me in a vivid way what it means to exclude fire from the landscape.

Many of the problems we face today in our forests—the risk of catastrophic fire and the very dangerous conditions in the wildland urban interface—have their roots in the dominant society's failure to appreciate the depth and sophistication of the tribal relationship with the land and in particular tribal land management practices. It takes generations to create and maintain large old pine forests and open prairies.

We have made a start, but we have a long way to go. A good next step is to acknowledge, appreciate, and most importantly begin to learn from the traditional knowledge that native peoples have about burning. In the beginning, in our belief, it was the animals that gave fire to the people.

It is now time for us to return that gift to the animals.

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FIREFIGHTING FORCES IN INDIAN COUNTRY: YESTERDAY AND TODAY

by
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Interagency Fire Center, BIA

Author's Note: We acknowledge the fact that Native involvement with fire goes back since time immemorial. The focus of this article centers on firefighting forces within Indian Country from the 1930s to present day.

"It shall be the duty of the Indian police to prevent and suppress forest and grass fires as far as possible, and failure on their part to perform such duties, or to report promptly any fire which they cannot control, will constitute sufficient cause for dismissal."

Office of Indian Affairs,
Regulations and Instructions for Officers in Charge of Forests on Indian Reservations, June 29, 1911.¹



1951—Mendocino National Forest, California. Mescalero Apache Indians from New Mexico fighting a forest fire on the Mendocino NF. They were flown in by the Air Force from their reservation. They were the crack "Red Hat" group trained by the Indian Service to fight fire on their reservation. **Photo by Chester Shields**, "Forest Service Historical Photograph Collection, National Agricultural Library, Special Collections"

Indeed, Indian Country has come a long way during this past century in terms of the evolution of the Indian firefighting force. What was the social pretense of fire then? What is it now? To answer these and other questions, we start with some of the first organized Indian fire fighting crews; the Indian Division of the Civilian Conservation Corps.

The Civilian Conservation Corps (CCC) was one of the most famous and successful job creation programs in America's history. President Franklin Delano Roosevelt developed a package of programs aimed at ending the Depression by stimulating the economy and putting people back to work. The "New Deal" programs were enacted during the first hundred days of the Roosevelt Administration.

The "New Deal" programs were started during the Great Depression of the 1930s. It was organized in April of

1933, under authorization of Congress in an act of March 31, 1933, under the title "Emergency Conservation Work" (ECW), to provide employment to young unmarried men between the ages of 17 and 28. Four departments—Labor, Agriculture, Interior and the Army—worked together to establish and operate work camps.

The enlistment period was for six months with the possibility of re-enlistment. Initial strength by June 29, 1933, was 270,000 young men working in 1330 camps. Average strength was 300,000 in 1500 camps, or about 200 men per camp. The height was reached in 1936 with over 500,000 enrollees. In June 1937, legislation was passed extending the Corps for three more years, as well as making the name Civilian Conservation Corps official. The CCC included Native Americans and African Americans among its enrollees. The Office of Indian Affairs was further authorized to enlist 14,861 American

Indians, who, living at home rather than in camps, worked on projects on Indian reservations. So began the Indian Division of the Civilian Conservation Corps (ID-CCC).

Most camps were segregated and had white officers and educational advisors. The Native Americans performed work on their own reservations and not all lived in camps like the others. Almost three million men were eventually enrolled in the Corps. Native American enrollee estimates were nearly 80,000 over the span of the program.²

The ID-CCC enrollees cleared underbrush, helped in historic excavations and stabilization of buildings and ruins, built roads, and trails, park buildings, campgrounds, picnic areas, picnic tables, fireplaces, signs and exhibits. The enrollees also fought fires and helped in natural disasters.

In addition, the ID-CCC developed forest fire protection systems that strengthened reservations. David Dejong of the Native American Research and Training Center highlighted some of the accomplishments of the ID-CCC: over 100 fire lookout towers were erected. 600 fire cabins were built and 7500 miles of telephone lines were strung on reservations that had timber resources. Thousands of miles of trails were constructed to gain access to areas that could be engulfed in fire.³

Of course the presence of these enrollees in the forests furnished the nation with a first-class forest fire-fighting patrol during fire seasons which resulted in millions of acres of forest and park land being saved from fire damage. CCC enrollees expended 7,930,912 man-days on forest fire-fighting duty or on

fire prevention or fire pre-suppression work. With the entry of the United States in World War II, Congress, against Roosevelt's wishes, abolished the Corps on June 30, 1942.

The second wave of organized Indian firefighters

"For centuries we have sung around the fire, the center of our universe. We have known of the wonder of fire. And when Mother Earth is ready for cleansing, she has called upon fire to do it. It is now a season of fire."

Author unknown.

With many ID-CCC and WWII veterans still ready to exercise newly-developed skills, many were put to work doing what they learned; forest fire protection. Also, given that most of the Indian tribes with timbered resources wanted to continue with suppression actions, it was a good mix of talent and need.

Robert Winston reported that in 1948, Bert Shields, a BIA forest manager at the Mescalero Apache Reservation organized one of the first groups of Indian men devoted solely to fighting fires. Most of this group consisted of WWII veterans and called themselves the Mescalero Red Hats and led the way for the creation of other highly skilled Indian firefighting crews.⁴

In 1950, the Red Hats won acclaim for their service during several fires in New Mexico. It is said that the Red Hats along with the Zuni and Santo Domingo fire crews were among the firefighters that discovered the little bear cub whose paws were burned in a forest fire. Smokey the Bear was introduced to the world and fire suppression now had an action hero; fighting fires now had new meaning and the American public had reason to combat the "evils" of wildfire.

To avoid confusion, it should be noted that there was another fire fighting entity also under the name "Red Hats." On the coastline of the Pacific Northwest, groups were organized for fire suppression to fight fires that might be started by Japanese aircraft or balloons during WWII. Called "The Red Hats" because of the distinctive red felt hats that were part of the uniform, the group solicited young college students from all over the United States who gathered on the coast to be trained for fire fighting. The concern from air attacks never materialized, however, a couple of suspicious starts were reported



US Forest Service poster, c. 1940s

and reports were classified.⁵

Throughout the 60s, 70s and 80s, extinguishing all wildfire at essentially all costs continued to be the main focus of fire suppression. Fire was still looked upon by many as an unnatural component of the environment and had to be defeated. Even though many tribes had traditional ties to fire use, many still agreed with the ideology that fire was the enemy when it came to protecting its highly-valuable timbered resources.

However, in the 80s and 90s things started to change. Indian firefighters were not only being hired to suppress fires, they were being hired earlier in the year to conduct pre-suppression work: thinning of overstocked stands, prescribed fire, piling and burning.

Many tribes also started to bring back the traditional stories of fire use. Those stories are commonly described and defined as Traditional Environmental Knowledge (TEK). In the context of fire, TEK incorporated the cultural and historic role of fire as remembered and told by tribal elders. The telling of the historic and cultural role of fire through the stories has been an important element useful in integrating fire strategies with the larger land management picture for tribes. Tribal forestry and fire programs are currently implementing successful land management programs utilizing

local TEK and making great strides in resource management.

The Indian firefighting forces of today

Nationwide, nearly 10,000 Administratively Determined (AD) Indian firefighters were on the lines in 2004. Though American Indians make up less than one percent of the U.S. population, they account for nearly 50% of the nation's AD wildland firefighting force. In the Southwest and Rocky Mountain regions, estimates for fire employment of Indian ADs range from 60-70%. For Indian firefighters, this can translate into a job that can bring in between \$5,000 to \$25,000 for a few months of hard work. For tribal members and communities struggling with high unemployment, this involvement can mean everything.


The ever expanding role of Indian firefighters and wildland fire management bode well for tribes and the BIA. President

Bush's Healthy Forest Restoration Act (HFRA), implemented to reduce forest fires by thinning overgrowth and re-seeding burned areas could possibly be an excellent opportunity for tribal fire crews and businesses. Couple the HFRA with the Tribal Forest Protection Act of 2004, and the opportunities could be endless for tribal entities.

In light of the recent legislation, past Assistant Secretary of Indian Affairs, Neil McCaleb stated, "For years, many Indian firefighters have risked their lives to protect homes, families and communities across the country from the devastating effects of forest fires. Tribes that provide forest thinning and re-seeding services could save lives and property, and provide new employment opportunities for their members, as well."

Over the past century, firefighting has become a cultural and economic fixture of Indian life. It is not uncommon on many reservations for mothers and fathers, when the fire call comes, to leave their children with grandparents for the season. Grandparents tend to understand, because many of them were also firefighters and some were even members of the Indian Division of the Civilian Conservation Corps.

Germaine White, a member of the Confederated Salish and Kootenai Tribes of the Flathead Reservation in Montana, points out that, "Today, firefighters are



held in high regard and their commitment and sacrifice is acknowledged and respected.” That commitment and sacrifice not only is represented today across Indian Country by our fire-fighting brethren, but also by the respect paid to our elders that have passed down the fire-related knowledge.

We thank those that are still with us and those that have gone home. We live, we learn, we educate, we grow. So goes the continuing story of Indian Firefighters. Commitment. Sacrifice.

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Photo courtesy of Ron Swaney, Fuels Officer
CSKT Natural Resources Department.

HAZEL FUELS REDUCTION PROJECT: INTEGRATING CULTURAL RESOURCE MANAGEMENT AND HAZARDOUS FUELS REDUCTION.

by
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The Hazel Fuels Reduction Project on the Hoopa Valley Indian Reservation in Northwest California provides an example of how tribal communities are using National Fire Plan funding to reduce hazardous fuels and restore tribal lands degraded by a century of fire suppression and commodity based forest management. Fire exclusion has eliminated the fire adapted vegetation communities that were created by pre-European Indian management.

Without active management, the healthy productive forests encountered by early European settlers have been replaced by overcrowded fire prone stands. Fortunately, federal funding through the Healthy Forest Restoration Act provides a mechanism for tribes to restore degraded forests and integrate landscape burning into tribal forest management programs.

Native American communities across the western United States face the same forest health issues affecting other federal lands in the west. Bureau of Indian Affairs (BIA) forest management policies guiding management of reservation forestlands have created overstocked forests that are susceptible to insect attack, disease, and catastrophic wildfire.

Native American use of fire as an important tool for managing forests and woodlands is well documented. (Blackburn, 1993; Boyd, 1999) Fire allowed manipulation of vegetation on a landscape scale, through careful

timing of burns at specific locations. Using landscape burning, Tribal communities were able to provide the resources they needed to prosper. They were able to sustain this practice over thousands of years without degrading the resources necessary for their continued prosperity.

When European management was imposed on fire-adapted vegetation communities, fire exclusion substantially changed the forest communities created by Indian management. Over time, open productive woodlands were replaced by dense forest dominated by shade tolerant species. Brush species filled the understory, increasing competition for water, light, and nutrients. The competition induced stress favored insects and disease. The resulting plant communities are highly susceptible to catastrophic wildfire and lack many of the cultural species most important to Tribal people.

The Healthy Forest Restoration Act was approved by Congress in 2003 to

implement policies outlined in the Healthy Forest Initiative. The initiative was launched by President Bush in 2002 to address the growing fuels problem in western fire adapted forests. The act provided funding and streamlined the environmental review process for fuels projects on federal lands.

On the Hoopa Valley Indian Reservation (HVIR), The Tribal Fuels Management pro-

gram is using this funding to implement hazardous fuels reduction projects that combine fuels treatments with traditional cultural resource management.

The fuels reduction projects use a series of coordinated treatments to reduce fuels and prepare for prescribed burning. First, understory vegetation is mechanically treated to prepare the site for burning. During this phase, hand crews using chain saws and brush cutters cut and stack thick understory vegetation to reduce fuel density and continuity. On gentle slopes the understory vegetation is mowed using a tractor or small bulldozer to reduce project costs. Second, piled vegetation is burned to reduce fuel accumulations that could damage overstory trees during underburning. Finally, the stand is underburned to treat ground litter and enhance cultural species. Treated areas are maintained using low intensity fires every three to five years.

The Hazel Fuels Reduction project



A view of the Hoopa Valley Indian Reservation in Northwestern California.

provides an example of this strategy. The project area is located in the wildland urban interface (WUI) zone, around the communities of Hoopa and Weitchpec. Both treatments are in oak woodlands that were traditionally managed for production of acorns and hazel. Hazel sticks are an important component of traditional baskets, forming the foundation of most of the baskets produced by local weavers. Acorns were a major component of the native diet.

Both the Jones Point and Weitchpec treatment areas are located upslope from areas plagued by frequent arson fires. Dense understory vegetation and large amounts of dead litter presented an extreme fire hazard. Arson fires started from the state highway or tribal road running below the project area posed a significant threat to tribal resources, upslope from the treatment area.

The projects are situated on moderate to steep west facing slopes above the Trinity River. Overstory vegetation was comprised of black oak (*Quercus kelloggii*), Oregon white oak (*Quercus garryana*), Pacific madrone (*Arbutus menziesii*), tanoak (*Lithocarpus densiflora*), and California bay (*Umbellularia californica*). The understory contained California hazel (*Corylus cornuta* var. *californica*), Pacific dogwood (*Cornus nuttalli*), poison oak (*Rhus diversiloba*), evergreen huckleberry (*Vaccinium ovatum*), and sapling sized Douglas-fir (*Pseudotsuga menziesii*).

The 200-acre project treated 110 acres at the south end of the reservation and 90 acres along the northern reservation boundary. Project funding was spread over three years. Year one, mechanical treatment was completed on 66 acres. The following spring, mechanical treatment was started on 66 additional acres and prescribed

burning was completed on the 66-acres piled the previous year. The third year, all remaining acreage was mechanically treated. Prescribed burning will be completed once a suitable spring burn window permits implementation of the burn prescription.

Restoration is not cheap, averaging \$850 per acre. The majority of this was used to complete mechanical treatment of understory vegetation. Average cost is \$500 per acre for hand crews to cut and stack understory vegetation. Handline construction, prescribed burning, and project administration were responsible for the remaining costs. However, once restored, the areas can be maintained using periodic low intensity fire. Maintaining restored areas will cost less than \$150 per acre every three to

five years and will produce cultural resource benefits on top of the community protection objectives. Hazel needs to be burned every three to five years to produce the high quality sticks the basket weavers need for their baskets.

The Hazel Fuels Reduction project was successful. The treatments have been effective at meeting the community protection goals outlined in the President's Healthy Forest Initiative and the project has produced numerous cultural resource benefits. Local basket weavers are utilizing hazel collected from the project area. Monitoring conducted in collaboration with the California Indian Basket Weavers Association shows that the project treatments produced both an increase in the quantity and quality of hazel sticks.

Overall, the President's Healthy Forest Initiative and the Healthy Forest Restoration Act are good for tribal communities. Native Americans have actively managed western landscapes

for their benefit over thousands of years. The healthy productive landscapes, as well as the techniques used to create them, were lost following European conquest of the western US. After a century of decline, Tribes now have a means to restore these landscapes and integrate traditional management with current timber-based forest management.

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Dave Skinner

This is the view looking toward Signal Peak from seed-tree harvest units on the west side of Cunningham Creek drainage, Yakama Reservation, conducted from two-to-five years ago. Tribal land managers here are aiming for a mosaic look in the area.

HOOPA FOREST MANAGEMENT AND NORTHERN SPOTTED OWLS: WHAT HAVE WE LEARNED?

by
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So this is exciting, we've been crouched in the huckleberry for nearly an hour surrounded by a billion mosquitoes and finally the owl has taken a mouse. "What now"? Dawn asks. "We watch what he does with the mouse", I reply. "It looks like he's going to eat it." "Yep." Then we offer him another one.

Training new hires in the art and science of surveying and monitoring northern spotted owls has been a large part of my job for the last 14 springs. It's not as much fun as it sounds. Arriving for work at 3:30 am, driving on logging roads that have not seen a timber sale for seven years and then crawling through the huckleberry in pursuit of flying cats or so they appear at times as they silently swoop down and pluck mice from a branch and sail down the hill effortlessly.

"Ok, lets run," I say to Dawn and we begin our pursuit. We'll stay on this ridge and hope he goes to one of the historic nest trees, which can be accessed from the ridge." "But we're running through poison oak." "Sorry, but its better than slithering through the huckleberry." I swear they're going to find my skeleton tangled in the huckleberry some day when I go in too deep and can't fight my way out or when my backpack gets tangled and I can't free myself. "There it is," I exclaim and Dawn looks at me as if I am hallucinating. "I don't see anything," she says. "No, listen, I can hear him giving delivery hoots 200 meters down the hill." "Oh, so what does that mean?" "Well, we just have to catch up with him before he goes to the nest or the female comes off to accept the mouse." Thirty minutes later we are nearly half way there and the male has been watching us flounder through the brush for the last 25 minutes. "Ok, I will go ahead to where I think I can see the



Mark Higley

Color band is visible on the leg of this female spotted owl. The color bands are used to identify birds from year to year without having to re-capture them to read the number on the metal band.

area where he had been hooting and then you will give him another mouse." "Got it boss." And so it goes, and we discover yet another nest tree in the 375 acre stand of old growth, which makes up the core of territory 74031.

The northern spotted owl was listed Federally as a Threatened species in 1990 and the marbled murrelet in 1992. The tribe hired a wildlife biologist in 1991 to conduct surveys for the listed owl and murrelet and to write the necessary Biological Assessments for Timber Sales. At the same time the planning process for the tribe's FMP was begun. Because the tribe and BIA had consulted with the U.S. Fish and Wildlife Service (Service) on several timber sales

and received conservation recommendations in the resulting Biological Opinions, it was felt that the FMP planning team had enough input from the Service to proceed with the FMP without the direct involvement of the Service. Service representatives had offered to participate in the process early on but it was thought that the plan would have greater Tribal ownership by proceeding with out any additional outside input. In addition, the less emphasis upon managing for "owls" during the planning process, the better, since owls traditionally were not a group of species for which tribal members would seek out due to their role as messengers of "bad news." Beyond that, the idea for focusing management on only one or two species at a time is contrary to Native Americans philosophy. Generally, Native American cultures view the world in a far more holistic way with all species of plants and animals viewed as important to the health of the web of life.

Of the alternatives proposed, the higher intensity alternatives did not include all of the Service's recommendations. Although the tribe's selected alternative resulted in incidental take of individual spotted owl pairs and un-occupied potential marbled murrelet habitat, it did meet the Service's primary objective of providing connectivity for owls passing through the Reservation. In fact, the Reservation has supported between 30 and 40 pairs of owls each year from 1992 to 2004 despite the timber harvesting and incidental take. In 1997 the tribe, BIA and USFWS completed a programmatic Section 7 Consultation on the tribe's FMP which requires annual monitoring reports documenting the amount of habitat degraded or removed during the previous year's harvest and the biologi-

cal status of the owls. This programmatic consultation was the first completed on tribal lands nationwide and has been a tremendous benefit to the tribe, Service and ultimately the owl.

By removing the requirement for annual consultation prior to timber sales, the tribe saves valuable time and can advertise and sell timber sales at the most appropriate time. The service receives the same impact assessment data and can track the impacts in their database but they do not have to produce project by project Biological Opinions. The benefit to the owl comes through the intensive monitoring of the population and its demographics, which can then be used to model the effects of various habitat conditions and climatic factors on survival and reproduction. The information gained from these modeling efforts could be used to maintain or improve favorable habitat conditions across the landscape in the future.

The tribe began an intensive spotted owl survey and monitoring program in 1992, which conformed to the standards and protocols of the long-term demographic density study areas throughout the owl's range. The data the tribe has collected has now been included in two range-wide status and trend demography "meta" analysis. Fourteen study areas were included in the most recently completed analysis, which was conducted in January of 2004 and covered the period of 1985-2003 (Anthony et al. 2004). Of the fourteen study areas included in the analysis, Hoopa was one of only four which appeared to have a stable population during the study. In addition, Hoopa was one of two study areas showing an increase in reproduction. Although these results are favorable it should not be over stated at this point for the following reasons: **1)** The overall average reproductive rate at Hoopa was the lowest of the 14 study areas and **2)** the populations "stability" was tenuous and could easily slip into the category of declining in the next analysis. On the other hand, the population is doing better than predicted in the Environmental Assessment on the FMP which concluded that the owl population would likely decline during the next 10-20 years and then begin to recover and eventually stabilize as habitat cut



Mark Higley

Tribal member Dawn McCovey is holding a juvenile northern spotted owl during the banding process.

during the BIA era recovered as owl habitat. The near term decline was predicted because the tribe continues to cut old growth habitat since there are no second growth stands ready for harvest. This continued loss of owl habitat was expected to result in a decline of the owl population in the near term and the Service issued incidental take for a number of owl pairs during the period of the FMP. Most of these pairs have continued to persist and reproduce. The discussion section of the above mentioned meta analysis stated:

"The relative stability of spotted owl populations on HUP (Hoopa) was particularly interesting, because old forests were harvested on that area during our study. However, the forest management plan for the Hoopa Reservation did not allow intensive clear-cut logging, and 30% of the forested lands were retained as old-forest reserves in riparian protection zones, tribal reserves, and spotted owl core nesting areas".

It is also important to point out that northern spotted owl populations use

habitat differently throughout their range most likely in response to their primary prey changing from northern flying squirrels in the north to Dusky footed woodrats in the south. In Hoopa, the primary owl prey is the dusky footed woodrat which is most abundant in young brushy regenerating stands while northern flying squirrels are never abundant and when present generally occupy mature and old growth forests. Therefore, managing for spotted owls in Hoopa requires less old growth forest than necessary in Washington and northern Oregon. In fact, retention of patches of good nesting habitat mixed with younger stands suitable for woodrats might be desirable for spotted owls in northern California. This is being accomplished in Hoopa and will likely ensure success for the spotted owl on tribal lands into the future unless increasing barred owls, or the arrival of exotic disease (west Nile virus) or both impact the spotted owls significantly.

Well did you see the female? Dawn asks. "Yes, she is the original female banded here in 1992 and originally banded as a juvenile on the Willow Creek (NWC) study area in 1989." "So she is 15 years old?" "Yep. She has spent all of her adult years in this territory and has had two mates and produced only four young in all that time."

The territory mentioned above has a very high percentage of old growth habitat within a 1.3 mile buffer around the activity center, this territory has not been very productive. I think that it is lacking a grocery store. By that I mean that there are no brushy pole stands close to the activity center. We have some territories with very little old growth but they have been very productive, most likely because they have good sources of woodrats nearby. We have been working hard to document habitat and climatic relationships with survival and reproduction and nearly have a draft paper ready for submission to an appropriate journal. Owls in Hoopa and on the private industrial forest lands to the west of Hoopa appear to do well if they have a mix of good nesting, roosting and foraging habitat in close proximity to good woodrat habitat. This has made managing for spotted owls relatively

easy up to this point compared to maintaining many other old growth associated species. For example, there are many species of bryophytes and lichens which require interior mature forest stand conditions and species such as pileated woodpeckers need a great deal of large forest structure, especially large snags for foraging and nesting.

In addition to the spotted owl and marbled murrelet survey projects, the Hoopa wildlife program conducted a Pacific fisher habitat use and population study between 1996 and 1999. The tribe is currently expanding the fisher research with a grant received through the Fish and Wildlife Service's Tribal Wildlife Grants program. The fisher is a culturally significant species to the Hoopa Tribe and has also been petitioned to be listed as threatened three times in the past ten years and has recently been classified as a Candidate for federal protection under the Endangered Species Act. The data collected during the previous fisher research project has demonstrated the importance for the retention of large diameter trees for fishers, especially large diameter hardwood trees for den and rest sites. In addition, the density of fisher on the reservation study site appeared to be higher in the areas which had the highest level of old growth habitat remaining. Overall density of fisher on the study site appeared to be very high when compared to other study areas in the west with nearly one fisher per square mile. The new research project begun in October 2004 will document female fisher den selection, assess the feasibility at studying fisher dispersal and the use of genetic analysis to monitor fisher populations.

The management alternative selected by the tribe for their FMP was



Mark Higley

Fisher kits removed for tagging are held for only a few minutes and then returned to the den. Each one has unique markings on their chest and groin. Therefore, photos are taken so that they might aid in identification if tags are lost or fail.

identified as a "Moderate Income and Moderate Wildlife" alternative. The guiding principles to be used in silvicultural prescriptions were and are to retain old growth structural characteristics similar to that which would have occurred due to natural disturbances such as fire which rarely removes all of the standing trees. Fire has been an important factor in the development of nearly all of the old growth stands on the reservation. When examining large areas of old growth still existing on or near the reservation it can be seen that fire was generally of low intensity near streams and varying from low to occasionally high intensity on upper slopes. With this in mind all timber sale units retain significant large structure following logging, looking nothing like the intensive clear cuts of the 70s and 80s but being very similar to the older cuts of the late 50s and 60s although much smaller in scale. These older cuts retained varying levels of large green trees and high levels of large down wood as timber harvests avoided cull and low value trees. These stands are now becoming important habitat for spotted owls, pileated woodpecker, fisher and other old-forest associates. In fact, three of seven radio

collared fishers used these older cuts as their denning sites during March to May 2005. These animals all selected large diameter hardwood trees for their natal den sites.

The stakeholders on Indian lands often live on the same lands managed for commercial resource extraction and their ancestors have occupied these lands for thousands of years. Unlike private lands, culture, tradition, subsistence as well as recreational use of these lands takes precedence over pure economic gain. But unlike federal lands in the

Pacific Northwest which have fallen into a bureaucratic quagmire; implementation of forest management plans must occur due to the strong economic need. Because of this there exists an opportunity for tribes to regain their rightful position as the leaders in the field of sound ecological management of the land. I believe that if tribes were afforded sufficient funding for ecological monitoring programs the effectiveness of tribal management would be documented and it would eventually influence management on federal lands. Hoopa is finishing up a fuels management plan which will include mechanical fuel reductions and the reintroduction of fire into the landscape. We will be able to document the effects of this on spotted owls but without additional long term funding, monitoring the effects on other species will be very limited. Hoopa forest management is striving to maintain and restore important ecological elements across the Reservation lands, not for any one species of wildlife, but for all species and the benefit of future generations. The close tie of the people, culture and traditions to the land will ensure that they will be successful.

SACRED LANDS AND FOREST MANAGEMENT: HOW CAN THE RELIGIOUS FREEDOM NEEDS OF NATIVE AMERICANS BE ACCOMMODATED

by
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Many traditional religious and ceremonial practices of Native Americans are inseparably bound to land and natural formations. These sites may be places where spirits live or that otherwise serve as bridges between the temporal world and the sacred. Areas of sacred geography may be related to tribal creation stories or historical events of religious significance. They may also be areas where sacred plants or other natural materials are available, sites with special geographic features, burial sites or places where structures, carvings or paintings made by tribal ancestors are located. It is often difficult for non-Indians unfamiliar with traditional tribal culture to understand how deeply felt and integral these beliefs are for those who practice and believe in these traditional ways.

The continuation of traditional native religions and tribal cultures over time is dependent upon the performance of ceremonies and rituals, many of which have been performed since time immemorial at specific sites and which must be performed at those sites in order to be effective.

A large number of those sites sacred to traditional Indian religions are



Dave Skinner

Nick Swan, supervisory forestry technician, Yakama Reservation. Like many Indian forestry professionals, Nick started in forestry in 1974 fighting fires. He later spent three years on inventory and cruising in the woods, scaled logs at White Swan, became a scaler supervisor, then shifted to the main scaling office. Over his 31 years in the business, he has taken advantage of intensive in-house tribal training programs as well as participated in many regional forestry professional meetings and conferences.

located in federally-owned National Forests. Goals of resource development can sometimes clash with preserving the integrity and sanctity of sacred places.

This article discusses the differing world views that can give rise to such conflicts, analyzes some of the legal framework surrounding land management decisions in National Forests, and advances some ideas about how these

conflicts can be avoided.

A recent decision by the Forest Service is one of the best examples of this conflict between world views. On March 11, 2005, the Coconino National Forest approved the expansion of the Snowbowl ski area on the San Francisco Peaks in northern Arizona. It did so in order to provide for "a consistent/reliable operating season" for the ski area. A key component of the expansion is the use of recycled water for snowmaking. This proposed expansion was heatedly opposed by numerous tribes in the area, including the Navajo, Hopi, Havasupai, Hualapai and Acoma Pueblo. In the words of Leigh Kuwanwisiwma, Director of the Hopi Cultural Preservation Office, "The use of wastewater to make artificial snow goes

completely against our belief that Nuvatukya'omi (the San Francisco Peaks), the home of our Katsina spirits, is the natural embodiment that brings rain, snow and moisture to bless all of life. The creation of artificial snow with wastewater will forever diminish the sanctity and spiritual value of Nuvatukya'omi as a sacred place. To allow this type of development on the

Hopis' place of worship and the place which our sustenance in the Hopi Villages comes from will most certainly contribute to the demise of the Hopi way of life and the Hopi religion. A significant part of the peace that I once felt in my life has been robbed and taken away from me by the Forest Service and its decision to harm Nuvatukya'omi and to treat the Hopi people and their religion with callous disregard."

The Snowbowl expansion is a textbook example of a case where the goals and needs of those who want to "develop" the land were more readily incorporated into government land management decision making than were the religious beliefs of Native Americans affected by that development.

Unfortunately, from the tribal perspective, existing law explicitly recognizes the value of accommodating the religious needs of Native Americans to only a limited extent. The National Historic Preservation Act (NHPA) provides that "a Federal agency shall consult with any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance" to a historic property when a federal or federally assisted undertaking may affect that property. The American Indian Religious Freedom Act and Executive Order 13,007 declare that it is federal policy to protect the integrity of and access to sacred sites, but neither is judicially enforceable. These laws are helpful tools, but none of them provide the kind of enforceable, substantive legal protection that would ensure that these sites are protected. Indeed, strengthening of the laws protecting sacred places has been a goal of the Indian community for many years.

Notwithstanding their limitations, it is important to recognize that these federal laws have allowed for strengthened protection of sacred sites through the negotiation of some agreements to



Dave Skinner

The Klickitat River Meadows/Caldwell Prairie bank restoration project. The project used 275 large trees contributed by the Yakama Tribes, funds from Washington State and Bonneville Power, specially-prepared heavy equipment, plus a lot of steel cable. The objective is to repair stream banks affected by cattle grazing, disperse energy during floods, and ultimately to encourage the river to meander more and provide better spawning grounds.

protect sacred places located on non-Indian lands. For example, in 1996, a Historic Preservation Plan (HPP) was developed based upon these legal authorities for the Bighorn Medicine Wheel and Medicine Mountain in Wyoming. Among other things, the HPP provides for consultation with tribal representatives whenever a government undertaking impacts an 18,000 acre area surrounding Medicine Mountain and Medicine Wheel, places restrictions upon vehicular access to the site and limitations on timber and mineral production in the area, recognizes the needs of practitioners for time-limited exclusive access to the site and seeks to retain the quality of the viewshed from the Medicine Wheel. The HPP also permits the continuation of a number of multiple uses in the area that are compatible with protecting the integrity of the site, including grazing, hunting, hiking and tourist visitation to the Wheel.

Protection of Native traditional

cultural and sacred places, however, continues to be a case-by-case struggle to convince land managers that it is necessary and possible to protect these places. In the case of the San Francisco Peaks, the Forest Supervisor was obviously not convinced. Ultimately, the dispute over the Snowbowl development will be settled by the Courts.

How can this be avoided? There is no answer that will work in every instance. There are administrative actions, however, that can be taken to lessen the frequency of these disputes.

The starting point is early consultation. The Forest Service planning regulations recognize "the Federal Government's trust responsibility for federally recognized Indian tribes. The Responsible Official must consult with, invite and provide opportunities for federally recognized Indian Tribes to collaborate and participate in planning."

Moreover, it is also appropriate for Federal agencies to consult with Native American traditional religious leaders and practitioners who have knowledge about sacred places under Federal jurisdiction, in addition to consulting with representatives of tribal governments, if they are to fulfill their obligations under such laws as the American Indian Religious Freedom Act and National Historic Preservation Act. Consultation with Native American religious leaders and practitioners does not take the place of government-to-government consultation with tribes, but at the same time consultation with religious leaders and practitioners is not inconsistent with the government-to-government relationship between the United States and each Indian tribe. A well designed consultation process should ensure that tribes and traditional practitioners that can be reasonably identified by the agency will receive notice and a meaningful opportunity to provide information and input into the agency action.



Shale Slough, a backwater of the Quinault River near Taholah, provides refuge for migrating birds, such as these swans, as well as salmon fry.

Consultation by itself is not enough, however. The Forest Service should establish some concrete management goals that can be adopted administratively and developed through the type of consultation that has been described. Among steps that can be administratively authorized are the following: Each National Forest should be directed to amend its Forest Plan to provide greater protection for traditional cultural properties and sacred places.

These places need not be specifically identified in the consultation process to be managed for their protection, but rather can be identified as being located within areas of sensitivity. Areas so designated can then be placed in a land management classification designed to protect their integrity and allow for access by traditional Native practitioners, allowing only such multiple uses as may be consistent with the ceremonial needs of these practitioners. In appropriate cases, the Forest Service should petition the Bureau of Land Management to withdraw certain lands from development to protect these areas of sensitivity. It is important to remember that access is not enough. The key is access plus protecting the integrity of the site—not just the physical integrity per se, but also those qualities that make it of spiritual

or ceremonial importance.

The Forest Service should seek to encourage co-management or shared stewardship of traditional cultural and sacred places between the Forest Service and Indian tribes, including a numerical annual goal for the negotiation of such agreements. There are examples where tribes and federal agencies have already entered into co-management agreements, such as Kasha-Katuwe Tent Rocks National Monument. Moreover, Congress recently endorsed agreements involving federal land management between tribes and the Forest Service for purposes such as fire prevention and land restoration in the Tribal Forest Protection Act of 2004.

Establish a policy providing for temporary closures of federal lands for ceremonial purposes. There are both legislative (El Malpais National Monument) and administrative (Bighorn Medicine Wheel) examples where such policies have been adopted. The authority of local land managers to make this accommodation should be made explicit.

It is incumbent upon the Forest Service to encourage these reforms. Recently, the Forest Service appointed a Sacred Lands Task Force that is charged with developing recommendations to

strengthen Forest Service procedures pertaining to sacred sites on National Forest lands. That Task Force could recommend and the Forest Service could adopt a policy that would require all Forests to consult with tribes and traditional practitioners in order to implement the administrative changes that have been described. Through consultation at the planning stages, by steering development to acceptable places through the planning process, establishing co-management agreements and providing for temporary closures for ceremonial use, the number of cases where conflict occurs in the context of specific projects can be greatly decreased. Such policies would be an important step toward fully respecting the beliefs and traditional cultural and sacred places of Native peoples.

(Footnotes)

1 The Religious Freedom Restoration Act (RFRA) is another law that has been raised in recent court cases dealing with the protection of sacred lands. RFRA is a general law that seeks to protect the free exercise of religion. It does not specifically mention Indian religions or sacred sites and it is unknown at present to what extent this law will provide substantive protection to threatened sites.



FUNDING THE INDIAN FORESTRY PROGRAM

by
Bill Downes
and
John Vitello

What's funding got to do with it? Funding is the critical key in every aspect of the Indian Forestry Program. It is one of the largest challenges we face in meeting our trust obligations to the Indian forest land owners. This challenge is encountered at every level of the program: national, regional, and at the tribe/agency level. Whether it is justifying, requesting, defending, distributing, or waiting for project funding to arrive, we are all affected. And, we are faced with the knowledge that there is not enough funding to perform all of the forestry management activities we are tasked with.

The Second Indian Forest Management Assessment Team's (IFMAT II) report agrees with this assessment. *"Funding for Indian forests, even with tribal contributions, continues to lag behind both federal investments on the National Forests that are managed for ecological services, and on comparable state and private lands managed for timber production. Despite increased funding for the fire program to protect forests from catastrophic fire and to increase forest health, rigid regulations prevent efficient use of funds to achieve integrated forest management. Smaller reservations and allotments pose special management problems due to larger per acre management costs. Partitioning of BIA budgets to individual tribes under self-determination and constant or declining budgets for technical services have strained the capacity of the BIA to provide a critical mass of technical service capacity."*¹

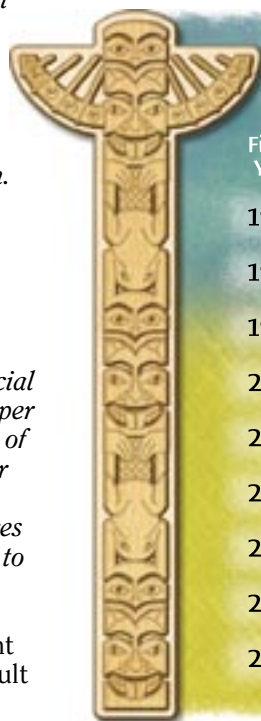
This article will explore the current and recent funding scenarios that result in the delivery of the Indian forestry program. It should be noted that for the purposes of this article, discussion does not include funding for wildland fire management.

The majority of funding for the forestry program is federal appropriations. Within the BIA budget, the forestry program is funded in four different activity areas: Recurring Programs (also known as Tribal Priority Allocations (TPA)), Non-Recurring Programs, Central Office Operations, and Regional Office Operations. Non-recurring Program funds are for the project based activities like forest development, forest management inventories and planning, and woodland management. Central and Regional Office Operations funds are recurring funds for the purpose of administering the program. A fifth activity area, which we refer to as

"Special" funds, comes from funding sources outside of BIA forestry. Examples of Special funds are endangered species, forest health protection, and special project funds.

The table below shows the amount of funds provided in federal appropriations the Fiscal Years of 1997 through 2005.

From 1997 through 2002, federal appropriations have only increased because of fixed cost additions to cover federal pay raises, etc. Exceptions to this statement occur in the "Special" activity area of the budget where endangered species, forest health protection, and congressionally earmarked special projects may or may not be funded.



Federal Funding for the IFP
in thousands of dollars

Fiscal Year	Recurring	Non-Recurring	Special	Central Ops & Regional Ops	Total
1997	20,321	15,548	1,903	2,143	39,915
1998	20,762	15,699	1,844	2,265	40,570
1999	20,243	15,806	2,180	2,116	40,345
2000	20,573	16,098	1,855	2,357	40,883
2001	20,948	16,641	3,961	2,647	44,197
2002	21,623	16,893	2,338	2,515	43,369
2003	23,304	16,996	1,925	2,521	44,746
2004	24,641	17,758	1,751	2,452	46,602
2005	23,807	18,548	2,072	2,372	46,799

Figure 1. Federal funding for the Forestry Program increased between 1997 and 2005. Recurring funds are Tribal Priority Allocations. Non-Recurring funds are forest development, forest inventories and planning, and woodland management. Special funds are for Endangered Species, Forest Health Protection, and special projects. Self-governance transfers are not shown in this table.

Recently, direct Indian forestry program funding increases were realized in three successive years, very much an anomaly in tight budget times. This is a direct result of the respect that is growing in political and management circles for Indian forestry and our ability to consistently manage forests year after year. In FY 2003, forestry Recurring funding was increased by \$1,500,000 to harvest more forest products. Then, in FY 2004, forestry Recurring funding received a second increment of \$1,500,000 for again harvesting more forest products. Also in FY 2004, forestry Non-Recurring funding was increased by \$1,000,000 for the purpose of providing Integrated Resource Management Plan (IRMP) development grants. This was the first time that money was specifically appropriated for IRMP development.

Finally, in FY 2005, forestry Non-Recurring funding was again increased by \$1,000,000; this time to address the lack of Forest Management Plans (FMPs) for all forested reservations and trust properties. This last increase capped a total three-year budget increase of \$5,000,000, and was a direct result of the Program Assessment Rating Tool (PART) that was conducted by the Office of Management and Budget (OMB). The additional funds are justified by the requirement in the PART to have approved FMPs for all forested reservations. OMB is tracking our progress in getting new plans approved. We have established a long-term goal of having plans in place for all reservations by 2015. This long-term goal also serves to implement two of the IFMAT II recommendations, paraphrased as follows: first, an aggressive planning program be implemented that will develop FMPs for all relevant Indian timberlands and woodlands within ten years; and second, amend the BIA Manual to allow for plans to be considered current until amended.² We plan to accomplish both of these recommendations.

A significant portion of the total funding available for forestry management activities on Indian forest lands is tribal contributions. Based on the findings in the "National Indian Forestry Program Funding and Position Analysis for Fiscal Year 2001" (FPA 2001), tribal contributions amounted to 35% of the total forestry program funding. These contributions are made in several ways: reinvestment of stumpage revenues (mainly forest



Analysis of Funding for the IFP

Fiscal Year of Funding & Analysis	Tribal Contribution as % of Total Forestry Program Funding	Tribal Contribution Amount
1987	33%	\$16,364,100
1989	37%	\$19,553,900
1991	31%	\$18,476,300
1993	34%	\$22,940,000
1996	39%	\$28,553,300
2001	35%	\$23,489,300

Figure 2. Source of data is the National Funding and Position Analysis for these respective years.³

management deductions); special contributions (proceeds from gaming or other tribal revenues); and in kind contributions of capital equipment and facilities.

The Division of Forestry has compiled a National Funding and Position Analysis seven times since 1984. Six of the analyses captured a snapshot of tribal contributions. The table above summarizes the findings from these six reports.

What is the outlook for future funding? In the immediate future new or increased appropriations are going to be difficult to obtain. The current federal budget deficit and stiff competition for funds for other priorities within the federal sector will be difficult to overcome. The Division of Forestry, however, took a recent step toward overcoming some of these difficulties. One of the IFMAT II recommendations was for the BIA to integrate the large wildland fire budget with the forestry budget. The thought process involved with this recommendation was that woody fuels treatments are one of the tools of a complete forestry program and should be treated as such. As a result of this thought process, the BIA Fuels Program Business Management Handbook now contains an approved process by which hazardous fuels funding can be utilized to treat the fuels component of forestry projects. If the process is followed, tribes and agencies will have another substantial funding source to draw from in their overall forest management package.

Another relatively recent development is that Congress and the Office of Man-

agement and Budget are changing the federal budget process to a performance based system. While new reporting requirements have placed additional financial burdens on tribes operating federal programs, the reporting requirements are necessary in order to obtain data for Government Performance and Results Act (GPRA), the previously mentioned PART, and the Activity Based Costing (ABC) model that is under development. Providing accurate and timely data to meet these reporting requirements is essential to justify continuing appropriations and hopefully to secure the basis for future funding increases.

In conclusion, funding is the critical key in every aspect of the Indian Forestry Program. While we have not come close to levels of funding identified as necessary in either the IFMAT II report or the Funding and Position Analysis, we have nurtured an acknowledged respect of the Indian forestry program; a respect that generates consistent if not rising budgets.

Bill Downes is Chief Forester and **John Vitello**, Senior Forester, Division of Forestry, BIA, Washington D.C.

¹ The Second Indian Forest Management Assessment Team for the Intertribal Timber Council. December 2003. "An Assessment of Indian Forests and Forest Management in the United States."

² Ibid.

³ United States Department of the Interior, Bureau of Indian Affairs, Office of Trust Responsibilities, Division of Forestry. Revised December 2002. "National Indian Forestry Program Funding & Position Analysis for Fiscal Year 2001: Revised Findings."

Forestry Program Statistics Regional Summary - 2004

Region	Protected Area acres	Forested Reservations number	Forested Area acres	----- Reservations number	Commercially Area acres	Timbered AAC thousand board ft.	Woodland Area acres	Permanent Staff number
Great Plains	5,883,850	13	239,393	6	70,666	3,300	89,632	98
Southwest	4,606,121	25	2,731,250	17	556,681	32,900	1,898,728	151
Southern Plains	478,948	22	99,682	1	4,038	600	95,067	15
Rocky Mountain	6,360,787	7	749,326	6	229,786	15,400	124,089	85
Eastern	464,471	17	281,538	9	194,734	28,600	28,628	36
Alaska	1,184,040	11	514,680	11	181,566	0	280,512	13
Midwest	1,514,778	38	1,050,867	38	892,738	179,100	0	146
Eastern Oklahoma	626,679	13	180,376	9	97,262	2,400	61,587	17
Navajo	17,273,673	1	5,415,539	1	428,011	0	4,818,814	29
Western	12,573,036	37	4,092,635	4	826,444	66,700	2,987,816	186
Northwest	5,078,787	42	2,923,264	41	1,999,680	407,100	164,686	505
Pacific	424,967	61	195,466	27	133,243	16,500	58,279	98
Central Office	---	---	---	---	---	---	---	67
Totals:	56,470,137	287	18,474,016	170	5,614,849	752,600	10,607,838	1,446

Sources: 2004 Catalog of Forest Acres; 2004 Status of Forest Management Inventories and Planning; 2001 National Forestry Funding and Position Analysis

Indian Forestry Budget: 1997 - 2005

Excluding Wildland Fire - in thousands of dollars

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Recurring	22,464	23,027	22,359	22,930	23,595	24,138	25,825	27,093	26,179
Non-Recurring	15,548	15,699	15,806	16,098	16,641	16,893	16,996	17,758	18,548
Special	1,903	1,844	2,180	1,855	3,961	2,338	1,925	1,751	2,072
Total:	39,915	40,570	40,345	40,883	44,197	43,369	44,746	46,602	46,799
Special									
FPM (Pest)	373	314	667	189	2,376	804	629	663	991
ESA (NSO)	1,530	1,530	1,513	1,666	1,585	1,534	1,296	1,088	1,081
Total:	1,903	1,844	2,180	1,855	3,961	2,338	1,925	1,751	2,072
Recurring									
TPA	20,321	20,762	20,243	20,573	20,948	21,623	23,304	24,641	23,807
Administration									
COPS	1,115	1,132	963	1,180	1,437	1,282	1,291	1,223	1,160
ROPS	852	975	994	1,017	1,049	1,072	1,070	1,071	1,057
Marketing	176	158	159	160	161	161	160	158	155
Total:	2,143	2,265	2,116	2,357	2,647	2,515	2,521	2,452	2,372



Young Quinault tribal members pose for a photo with the giant redcedar. Redcedar was culturally one of the most important trees of the tribe.

The Evergreen Foundation: Exploring the art and science of forestry

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Larry Workman of the Quinault Indian Nation.

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