7. Discussion and Conclusions

The road that had been built and known as the Coos bay and Roseburg wagon road, by a donation of 95,0000 acres of land, by congress, had proved a miserable failure.
Orvil Dodge 1898: 181

First, we must never forget the human and economic dimensions of these problems. Where sound management policies can preserve the health of forestlands, sales should go forward. Where this requirement cannot be met, we need to do our best to offer new economic opportunities for year-round, high-wage, high skill jobs.
President Bill Clinton, April 2, 1993 (ISAT 1995: 13)

Research and construction of this report has led to several findings and conclusions, which are briefly discussed and summarized in the following pages. There is an opportunity for recommendations, based on our findings and personal biases, but the authors have determined because the land is federally managed, and because the land managers have had no meaningful role in the development of this project or report to this time, the offering of occasional "suggestions" is more reasonable. And, again, such suggestions are based on our own thoughts, perspectives, and values and are in no way intended to represent an organizational viewpoint or directive of any type.

The Need for Historical Research: Mystery of the 18th Century

The temporal boundaries of this report are, generally, from 1650 to the present and, specifically, from 1750 to 1950. The year 1750 was selected because it represents a time in which Native populations and forest history of Coos County are imperfectly known. The reasonable likelihood of local catastrophic wildfire events coupled with catastrophic human disease epidemics in the mid-1700s make understanding of earlier times highly conjectural and historical research equally problematic. The time before 1750 adds a temporal element to the geography of Wasson's "black hole" (Wasson 2001: 98-99). More needs to be learned.

The fact that second-growth trees (less than 200-years old) have probably dominated Coos County forests for most of the last 500 years (see Part 6) is an interesting finding for several reasons. The Coast Range contains many of the largest and fastest growing species and specimens of forest trees in the world (Franklin and Dyrness ca. 1988). However, Douglas-fir, Sitka spruce, western hemlock, redcedar, black cottonwood, red alder, and perhaps even white oak all tend to live much longer in other regions of the Pacific Northwest, often taking many additional decades or centuries to achieve similar heights, diameters, or volumes in size as those in the Coast Range. Douglas-fir, for example, is known to reach ages of 700, 1000, or even more years in areas of the western Cascades (e.g., Franklin 1981: 94), Vancouver island, and Olympic Peninsula (Henderson et al 1989), yet the height, diameter, and/or volume of those trees is not significantly different than the largest, though much younger, Coast Range trees (Franklin and Dyrness ca. 1988).

Forest stand ages – and particularly Douglas-fir stands – are often dated to "stand replacement events," such as windstorm, landslide, disease or insect infestation, or wildfires. All known landscape-scale stand replacement events in the Coast Range, including Coos County, have been the result of wildfire, whether preceded by wind, insects, disease, or not (Zybach 2003). More than 99% of all forest fires worldwide are started by either people or lightning (Agee 1993: 25-26). In the Coast Range, there is no record of a catastrophic fire or catastrophic fire year caused by lightning. People, rather than lightning or other causes, have been responsible for the vast majority of wildfires in this region (Kirkpatrick 1940; Stewart

2002: 255; Zybach 2003), whether measured by acreage or number of events (Ballou 2002). Lightning has been rare in the region throughout recorded history, and fires started by lightning are even more unusual (Kirkpatrick 1940; Morris 1934a). When lightning does occur, it is often accompanied by heavy rains and these events tend to put fires out, rather than start them (Morris 1934b). Thus, wildfire patterns preceding white settlement in the mid-1800s can reasonably be attributed almost entirely to Indian burning practices. Subsequent wildfires -- particularly those occurring in Coos County after 1853 (see Part 3), when Indian populations were low and restricted to a few wandering bands and minor communities -- can likewise be attributed almost entirely to fires set by whites.

Several questions remain: Was the Millicoma Forest measured by Weyerhaeuser in 1946 reforestation following a catastrophic-scale fire probably set by local Indians (and thereby being the only such wildfire ever recorded)? Or was it a result of widespread population loss (Boyd 1999a), followed by the forestation of abandoned prairies, fields and valleys (Moravets 1932)? And, if these are significant questions, what methods might be used to achieve answers?

We believe these are important questions because of their relevance to Coos and Coquille Indian history, and to the history of local forests and landscapes. Resource management options and objectives can be radically affected by a better understanding of these dynamics. Managing a landscape with regularly prescribed fire, as likely performed in precontact time by local Indian families and communities; managing for recurring stands of second-growth Douglas-fir and other conifer species, as has largely taken place during historical time; or managing forests for old-growth trees and associated species, as is being currently proposed and attempted; all involve different goals, objectives, and technologies. A better understanding of local human and forest history makes it possible to more readily achieve each of these desired results, no matter which path is taken. Perhaps the best beginning point for learning the answers to these questions is a focused and detailed analysis of the 1946 Weyerhaeuser survey records.

Land Use Patterns: Using Landscapes for Education

Landscapes are dynamic creations, capable of communicating historical and cultural information over large areas and long periods of time. The ages of trees, and the composition of forest species are examples; so are the persistence of salmonberry patches, camas meadows, and bracken fern prairies. There is much to be learned about precontact and early historical Coos and Coquille families and communities by visiting and using the landscape and its resources in traditional ways in order to meet modern goals and objectives.

It is one thing to read about the past in a book, but it is another way to learn about the past by picking and eating a handful of ripe strawberries and the same place and season that people have done so for hundreds or thousands of years. Shared tastes, aromas, sights, sounds, and touches with past generations teach us things that can never be taught by any other means than personal experiences and related contemplations and discussions.

We suggest, first and foremost, that the landscape has the potential to teach us much about the past, thus providing us with clearer ideas about the future, and more options to achieve desired results. In many ways, such uses preclude other standard approaches to landscape management, such as timber or crop production, recreational development, old-growth "preservation," or wildlife habitat management. These are all social decisions, however, and the following "starter" list of suggested educational activities – based on traditional uses of the landscape and its resources – may well provide better insights into these competing perspectives. Educational and cultural activities involving traditional practices, local landscapes, and native plants and animals include:

Baking mussels, clams and oysters.
Basket weaving.
Building plank houses.
Burning shrublands, brakes, and meadows.
Brewing yerba buena tea.
Carving canoes.
Digging camas and wild carrots
Drinking manzanita cider.
Drying venison.
Eating fresh cat's ears and chinquapin nuts.
Fishing for eels.
Gathering firewood.
Grinding acorn flour.
Harvesting tarweed.
Hunting elk with dogs.
Making bows and arrows.
Netting and spearing salmon.
Picking berries.
Playing an elderberry flute.
Preparing traditional food recipes.
Pruning hazel and willow for weaving sticks.
Roasting myrtle nuts and hazel nuts.
Smoking meats and salmon eggs.
Smoking tobacco and kinnikinnick.
Splitting cedar planks.
Starting a fire with a fire drill.
Tanning hides.

Cultural Plants and Animals: Managing for Future Generations

Native plants and animals favored by early historical Coquille people retain much of their recreational, historical, cultural, nutritional, and economic value to the present time. These species have proven to do better under active management practices than by neglect or passive management. "If you don't use them, they will go away" is a common sentiment that has been expressed by many Indian informants (e.g., Seaburg 1982; Anderson 2005).

From 1750 to 1850 the CBWR Lands contained several village sites along the Middle Fork, North Fork, and East Fork Coquille River and were regularly visited and used by ancestral Coos and Coquelle people via an established network of canoe routes and foot trails. Favored trees, shrubs and food plants included redcedar, whitecedar, myrtle, tanoak, yew, hazel, elderberry, huckleberries, camas, bracken fern and tarweed. Important animals included salmon, elk, lamprey eels, deer, bear, and woodpeckers. Dogs were used for hunting.

These lands were never managed for "habitat" (other than human habitat), "structure," "old-growth characteristics," owls, voles, or murrelets, ever (ISAT 1995). How to do so (as is now being suggested) is, therefore, unknown. "Why to do so" seems more a matter of national politics than local need. There are educational, cultural and historical values to maintaining populations of myrtle, elk, eels, whitecedar, yew, tanoak, huckleberries, and camas, yet these plants and animals – which have defined the forests and people of the Coos and Coquille rivers for hundreds of generations – are seemingly not being given the same level of attention as old trees, owls, and voles. And, there is cause to believe that current methods

of managing for these more recently valued species are not particularly successful: an outcome likely due to inexperience and inability on the part of managers (these objectives are unprecedented and active management options are greatly restricted by legislation and litigation) and inappropriate location in light of landscape history.

We suggest a management strategy that incorporates people and historical plant and animal populations, in addition to the current foci given to timber production, tree ages, and listed species.

Fuel Management: Rural Jobs & Wildfire Risk

Catastrophic wildfires occurred throughout most of the Coast Range, including Coos County) in the 19th century because of three common conditions: seasonal drought (August to October); massive fuel build-ups (mostly 100+ year old Douglas-fir); and contiguous conifer canopies (leading to "crowning"). These conditions are beginning to present themselves in the Coast Range again at this time. Unless corrective actions are taken, catastrophic wildfires are likely to reoccur in Coos County again, including the CBWR lands.

Although it is possible a catastrophic wildfire occurred in the mid-18th century (the so-called "Millicoma Fire") through much of the study area, the 1868 Coos Fire was well documented and covered 100,000 to 300,000 acres of Coos County lands; including much of the study area. Millions of board feet of virgin timber were destroyed, thousands of wild animals burned or displaced, and wildlife habitat was instantly and forever changed over much of the region.

Prior to the occurrence of catastrophic-scale wildfires in the Coast Range, Indian-type burning practices dominated the landscape for hundreds or thousands of generations. These practices included firewood gathering and burning; patch burning (brush piles, berry patches, fern flats, etc.); and broadcast burning (prairie fires, land clearing, etc.). Such activities resulted in landscape patterns defined by open, well-traveled peaks and ridgelines, and heavily used and intensely managed riparian areas, which formed, in part, strategic fuel-breaks that reduced the spread or limited the damage of crown fires. Another factor was the systematic gathering of dead wood and other fuels along these breaks, reducing the spread, severity, and intensity of ground fires.

There are no long-term reductions in local wildlife populations that have been associated with either Indian burning or catastrophic forest fires. However, deer, elk, berry, grass, oak, and bear populations would likely decline through time as conifer forests expanded their range (Kay 1995); yet increase in numbers as forests were burned or otherwise cleared (Peterson and Powers 1952: 83; Kay 2002: 248-250). The development and maintenance of transportation corridors, extensive oak savannahs, prairies, berry patches, filbert groves, camas fields, root fields, and balds by Indian burning practices (Table 6.1) also resulted in beneficial habitat to a number of plant (Table 6.3) and animal (Table 6.4) species. During wildfire events, these areas could also function as "refuges" for threatened wildlife species.

These findings are in contrast to other findings driving current policies and practices. For example, one common assumption, as stated by Spies and Franklin, is that Coast Range forests in 1900 were formed predominantly of old-growth conifers in excess of 300-years age:

> In the early part of this [20th] century most of the forested area west of the crest of the Cascade Range was covered by old-growth forests consisting of Douglas-fir, western hemlock . . . and several other large, long-lived conifer species. Most of these forests were probably more than 300 years old and many exceeded 750 years (Spies and Franklin 1988).

Using documented historical conditions as a guide, landscape-scale forest restoration would limit the size and intensity of wildfires, improve forest resiliency to fire, protect and restore heritage sites, enhance wildlife and wildlife habitat, maintain and protect watershed ecosystem services, improve forest aesthetics and opportunities for recreational and spiritual experiences, reduce risks to public health and safety, and enhance the economic health of Coos County and Oregon.

In sum, the Coos Bay Wagon Road Lands pose a unique opportunity for the taxpayers of the United States, the citizens of Coos County, and members of The Coquille Tribe to create a new and meaningful direction in the management of our nation's forests and natural resources. In addition to traditional timber and game management objectives, and current species management regulations, other modern goals and objectives can be met through the judicious use and application of traditional methods of burning, tilling, pruning, harvesting, hunting, and fishing. Other benefits would include meaningful educational opportunities and the enhancement of native plant and animals populations, and of historical and cultural resources. It is our belief that the Coquille Tribe is uniquely positioned by history and by circumstance to develop and implement heritage forest and landscape restoration on the CBWR lands.