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The Cycle of History: Public Lands, Forest Health, and Activist Histories in the American West

To engage in forest activism is to enter into a debate about the relationship between humans, nature, resource utilization, and ecological survival. Loggers see themselves as having successfully aided nature by taking an ageing, rotting forest and replacing it with a growing one. “When the housed say too much wood was cut, loggers perceive hypocrisy and betrayal” (Dietrich 1992, 26). Among most environmentalists, old growth inspires a kind of worship and a profoundly protective stance towards the ecosystems that precariously house a multiplicity of endangered species. “Above all, the forest is a remnant of the world as it was before man appeared, as it was when water was fit to drink and air was fit to breathe” (Caufield 1990, 46).¹

Comprehending the conflict between timber advocates and environmentalists invites a related set of foundational questions: What is an old-growth conifer forest and how much of that forest is left? How did we get here in the first place? What are the historical patterns of land use in the Pacific Northwest? Has logging always devastated the forests? Is our concern simply nostalgia for another time or is it materially defensible? Where can we locate the intellectual and activist roots of both sides of the dispute? And, finally, to what policy level has this legacy taken us? Brief answers to these questions provide the stage upon which all subsequent chapters are set.

What Is Old Growth?

A universally acceptable definition of Pacific Northwest old-growth forests continues to elude the scientific community. Materially, the attributes agreed upon by the Forest Service’s Old-Growth Definition Task Group will suffice.

- two or more tree species with a wide range of ages and tree sizes
- six to eight Douglas fir or other coniferous trees per acre (.405 hectares), at least 30 inches (76 centimetres) in diameter or at least 200 years old
- a multilayered forest canopy

- two to four snags (standing dead trees) per acre at least 20 inches (51 centimetres) in diameter and at least 15 feet (4.5 metres) tall
- at least 10 tons per acre of fallen logs (deadfall), including at least two sections of fallen logs per acre that are at least 24 inches in diameter and 50 feet (15.2 metres) long (Durbin and Koberstein 1990, 25; see also Franklin and Waring 1980).²

Traditionally, foresters defined treed vegetational areas in terms of their climax species: the tree species expected to predominate if growth were to continue undisturbed for centuries. Much of the Pacific Northwest is classified by the potential prevalence of hemlock, a shade-tolerant species that grows well in dense, canopied forests. But the preponderance of Douglas fir in the forests tells another story: more often than not fire catastrophically disrupted the “climactic” spreading of hemlock, making way for the relatively long-lived Douglas fir. Disturbances like fire break up dense forest canopies, eliminate crowded underbrush, and thus favour the sunshine-thriving Douglas fir (Booth 1994, 30; Pyne 1997).

Pacific Northwest forests contain more living plant matter (biomass) per acre than does any other studied forest on Earth (Waring and Franklin 1979, 1,380). The millions of needles on a mature Douglas fir (70,000,000 is not uncommon) act as a kind of comb that sweeps drifting clouds and fog for moisture (Dietrich 1992, 104). One would think that the canopied density of an old-growth forest would block the rainfall that feeds watersheds from reaching the forest floor. On the contrary, however, about 35 percent of the water in an old-growth conifer forest is the product of fog drip. When only 25 percent of two drainages in a Portland-area watershed was logged, stream flow from within the logged drainages decreased despite the conventional wisdom that anticipated an increased flow of water (Caufield 1990; Maser 1989; Norse 1990, 147).

Snags (standing but dead trees) and deadfall – rotted, decadent wood to most loggers – are the basis of much of an old-growth forest’s health and biological diversity. They are the dwelling place of hundreds of vertebrate and thousands of invertebrate species. The decaying material is recycled into the soil and the forest. The dead trees are essential to forest health, the basis of its astounding productivity because much of the forests’ nutrients reside in the living and dead plant material itself and not, as one might expect, in the soil. “One-third of the soil’s organic matter comes from decaying logs” (Caufield 1990, 49-50). Clear-cut logging is criticized as indefensible because it denudes the forest of this organic legacy – a legacy upon which the next biotic generation depends (Durbin 1996).

The importance of the northern spotted owl lies in it being an “indicator species.” In lay terms, the owl is the canary in the coal mine: just as the

demise of the canary draws attention to the toxicity of the mine, so the demise of the owl draws attention to the ill-health of the forest. There is, borrowing heavily from Catherine Caufield's (1990) dense and comprehensive article, "The Ancient Forest," an intimate connection between the owl's survival, the forest's decay cycle, and certain fungi. Mycorrhizal fungi are of particular importance as they grow on decaying trees and on the roots of living trees. These fungi infect the roots of many tree species, including most of the conifers in the Pacific Northwest forest. In doing so, they promote the growth of tiny root hairs that spread across the forest floor searching for nutrients that are unavailable to uninfected roots. Without mycorrhizae, trees cannot obtain the phosphorus, the nitrogen, and the water they need to survive and grow (50).

Caufield documents attempts by experimental foresters to get seedlings to grow without the benefit of these fungi: all of the saplings died within two years of planting. Small mammals such as mice, squirrels, chipmunks, and voles, who consume the fungi and then distribute them via their scat, are responsible for spreading fungi spores throughout the forest. These fungi and truffles must come into contact with tree roots if the latter are to benefit (Caufield 1990; Maser 1989). A reduced spotted owl population quite likely means that there are not enough truffles and fungi to support the small mammals that are their prey. In other words, a low owl population assumes a low small mammal population and, therefore, a limited dispersal of the mycorrhizal fungi upon which tree growth depends.

Lay Perceptions

William Dietrich (1992, 23), in his superb journalistic (and occasionally ethnographic) account of the forest dispute, writes of his inability to comprehend "how so many good people could love the forest so fiercely in such completely different ways." Some, for example, are captivated by the Pacific Northwest conifer forest's ability to grow among the finest-grained woods in the world, while others are captivated by its genetic complexity and spiritual power. Both these attitudes are reflected in the social and natural history of the region.

Most loggers and representatives of the timber industry look at these forests and imagine the financial and utilitarian benefit derived from harvesting wood that will soon decay. In its wake, they envision a new, neater forest consisting mostly of the more desirable Douglas fir. Timber cruisers (those employed to evaluate the output of a potential timber sale) are respected for their talent at "guesstimating" the number of board feet (1 foot by 1 foot by 1 inch) in a particularly large tree. The average single-family home requires 10,000 board feet of lumber, and one very large Douglas fir can contain as many as 30,000 board feet (Booth 1994; Caufield 1990, 58).

Loggers quite often refer to old-growth forests as “decadent.” At first glance, given its association with Dionysian (usually urban) indulgences, this is a rather strange adjective to apply to forests. But this term does epitomize a critique common to many who oppose further protection of old-growth forests. First and foremost for these critics is the belief that it is utterly wasteful to allow merchantable standing timber to exceed its wood-producing prime by rotting to death.³

For timber enthusiasts, the idea, popularized by a Weyerhaeuser ad, that Oregon might one day “grow out of trees” is absurd. Travelling dusty roads with a timber cruiser for a small old-growth mill in Oregon’s coast range (an event described in some detail in Chapter 3), I noted his confidence that the next generation of trees will be a newer, stronger breed consisting of the most desirable species. He fussed like an attentive master gardener over the young forest on either side of the road we travelled. The trees were bright green, the by-product of cutting and replanting that took place thirty years ago. To me, the sight of these even-aged stands was monotonous, relatively unimpressive; but to my guide they were cause for great concern. He was upset by breakage caused by heavy snowfall, even though the growth setback will be irrelevant to his own arc of employment. The trees are supposed to be cut according to a 100-year rotation: they will be harvested long after he is dead.

Environmentalists do not generally share the logger’s awe of “board-feet” productivity. They talk instead of biomass, biodiversity, aesthetics (old-growth forests are likened to Europe’s ancient cathedrals), and spiritual inspiration. Their sense of urgency is rooted in the conviction that to destroy our habitat is to destroy ourselves. Some extend their egalitarian sentiments to all living beings and proclaim a willingness to decrease their material standard of living in order to protect other life forms. Further, for them, human-centred notions of usefulness are not paramount; nature is believed to have worth in and of itself.⁴

In the end, the forest ecologist’s delight with the overwhelming complexity and interdependence of forest life is shared by most environmentalists and much of the lay public. Foresters Jerry Franklin and Kathryn Kohm (1999) summarized the last three decades of research on the Pacific Northwest’s old-growth conifer forests, referring to them as demonstrating the forests’ extreme regulatory and structural complexity, their high level of biological diversity, and their fire and disturbance “legacies,” which enrich subsequent (postdisturbance) forest ecosystems. “These and other findings have highlighted the marked contrast between natural forest ecosystems and intensively managed plantations, and between natural disturbances and clearcuts” (243). This complexity is perfectly captured by ecologist Frank Elgin’s statement: “Ecosystems may not only be more complex than we think, they may be more complex than we *can* think” (Dietrich 1992, 110).

Altered Landscapes

Thus far, a picture has been painted of contemporary expert and lay perceptions of old-growth forests. But this portrait is falsely static, for it conceals a dynamic history of ideas about nature and about land use as conceived of, and practised by, Aboriginal populations and early White settlers, respectively. It also conceals the story of an expanding twentieth-century population and the industry upon which it depended.

In the Oregon neighbourhood in which I lived when I started writing this book, there were flyers stapled to telephone poles announcing the availability of training in Native American (no particular nation or band was specified) “shamanistic” and “survival” skills – skills that would enable one to live in harmony with nature. The teacher was not himself Native American.⁵ This poster, without betraying awareness of the fact that different Native North American groups had different ways of living on the land, reflects the romantic, decontextualized borrowings from Aboriginal lore that pervade some spheres of the environmental community – a phenomenon carefully examined in Chapter 6.

Ronald Gautier (a logger-cum-tree farmer working 1,000 acres [400 hectares] of family lands scattered about the north end of Oregon’s Willamette Valley) likes to point, alternatively, to the surrounding forested hills and recall the fact that the Calapooia had intentionally deforested the area with fire. Ronald’s message: we (descendants of European colonists) are not the first land managers, nor are we the first to clear the forests. The historical record confirms this. Two million of the Willamette Valley’s acres were maintained in prairie and savannah as a consequence of Aboriginal-set fires.⁶ After the fires, wild honey, grasshoppers, and tarweed seeds were more readily available for gathering, and a higher concentration of game animals congregated in the cleared areas (Boag 1992; Robbins 1997; White 1980). Citing multiple historical records, Pyne (1997) notes too that early White settlers were comparatively alarmed by the annual firing of Oregon’s Willamette and Tualatin valleys to harvest wild wheat and to hunt, although they understood very well the underlying purpose:

We did not know that the Indians were wont to baptize the whole country with fire at the close of every summer ... [until] the whites prevented them ... The bands ... united in the annual roundup ... At a given signal ... they commenced burning off the whole face of the country and driving wild game to a common center. There was considerable skill required to do this correctly ... the best hunters went inside and shot the game they thought should be killed.

Postsettlement, however, the area quickly returned to its forested cover: “Within a few years ... the hills and prairies had already commenced to grow up with a young growth of firs and oaks” (336).

The impact of Aboriginal practices on forest consumption ought not, however, to be overestimated. Booth (1994, 55) estimates Aboriginal timber consumption (per person, annually) to be about 15 percent of today's consumption figure. To this he adds that salmon, the mainstay of Aboriginal subsistence, were extracted at levels that were much lower than those of today. His arguments about Aboriginal rates of consumption and use of fire are twofold: (1) Aboriginal inhabitants exercised restraint when drawing on the natural world for their needs; and (2) the (pristine) wilderness of our imaginations, the world that preceded European settlement, was undeniably a territory shaped by its inhabitants to fit their own purposes.

To the best of our knowledge, Aboriginal manipulation of the environment occurred, whether due to conscious intent, to the honing of practices over thousands of years, or to population scarcity, without threatening the area's ability to sustain its inhabitants and without the introduction of exogenous biological life. Some species were clearly favoured and fostered over others, but two vastly different biological worlds did not come into contact with one another until there was a substantial European presence on the continent (White 1980, 26-36). Moreover, the decimation of Aboriginal populations via disease, warfare, and colonization, as well as by the government-imposed reservation system, meant the end of methods of land use that were unique to Aboriginal settlement.⁷

Subduing "Wild" Nature

The timber industry's economic domination of the Pacific Northwest was not an immediate result of White settlement. Initially, the timber industry evolved despite government policy that emphasized the agricultural development of the west. The desire to get "the land subdued and wild nature out of it" (so that farming might begin) was what motivated most nineteenth-century settlers (Boag 1992; Booth 1994, 73; Robbins 1988). "The settlers never thought of their axe work as deforestation but as the progress of cultivation" (Shabecoff 1993, 30). The federal government's Preemption Act, 1841, and the Donation Land Laws, 1850, provided anywhere from 160 to 320 acres (64 to 130 hectares) to those who could (and would) become resident citizen farmers (White 1980, 37-38). The legal validation of settler occupation provided by the Oregon Donation Land Laws was a particular inducement to immigration. Before the act's 1855 expiration, 25,000 to 30,000 people of European descent arrived in Oregon Country, representing an "increase in that population of nearly 300 percent" (Robbins 1997, 83).⁸ Overall, a pervasive spirit of consumption was matched by the availability of forcibly appropriated Aboriginal land.

Biologically, the influx of transported exogenous crops that accompanied the human settlers vastly simplified the ecological world. The soil that supported the abundant forests was not easily converted to productive

farmland. Except for some river valley and prairie areas, the ground was generally dry, sandy, and unsuitable for anything but conifer forests.⁹ Domesticated crops perished in the absence of intensive human labour. Nonetheless, federally (and distantly) mandated laws persisted, and legislation blindly promoted the “progress of civilization” by continuing to allot land to tenant farmers. Lawmakers believed that clearing the land of trees increased rather than decreased the land’s value. Meanwhile, loggers and mill owners became cognizant of the economic potential of these devalued forests and managed to evade federal laws designed to place land in the hands of tenant farmers. Tolerance for fraud and theft filled the gap between the federal government’s agricultural policy (which was extremely anti-tree) and the settlers’ localized (and lucrative) logging opportunities (Robbins 1988; Shabecoff 1993; White 1980).

In the 1860s and 1870s mills began to appear in the Pacific Northwest, providing the growing west coast population with lumber for housing and civic infrastructure. As much of the public domain had yet to be surveyed, it was common for independent loggers to provide mills with timber by simply cutting whatever and wherever they could. Those who formerly had cut timber for their own homes began, in the absence of any title or right to the land, to cut whole sections for mill supply (White 1980, 80). During this period punishment for such illegal actions was inconsequential precisely because so few people conceived of the forest as a benefit (Booth 1994, 80-82). “Once begun, however, cutting timber on public lands easily slid into a habit, and even into something of a right ... In 1877, investigators claimed that half the timber cut from Washington State’s Puget Sound region had been illegally taken from government or railroad land” (White 1980, 82).¹⁰

Mill owners and/or lumbermen interested in acquiring their own land so that a regular timber supply could be secured did so by subverting the Preemption Act and the land acquisition laws. Proprietors would hire “dummy entrymen” to go into land offices and pose as potential tenant farmers, whereupon they would take title in their own or their company’s name. At the same time, mill owners continued to purchase timber from loggers, saving their own land for anticipated periods of scarcity. Thus a solid tie was established between mill owners and loggers: the former provided the latter with a market, and the latter obtained their equipment from the former.

The Homestead Act, 1863, and the Timber and Stone Act, 1878, reiterated, in theory, the federal government’s desire to preserve land for settlers, but mill owners continued to use the laws to expand their holdings. The Puget Mill Company had entire crews from its lumber schooners file false homestead claims. A comparison of actual land holdings with legally transacted purchases found that 38 percent of private forest holdings was

acquired through the illegal use of the Homestead Act and similar acts (Booth 1994, 81). It was during this period that one could also acquire land via railroad grants. The government would provide land to railroad companies in exchange for the building of rail systems. In order to finance this construction, railroad companies would sell considerable portions of their granted lands to mill owners.

To summarize, US land distribution policy during the above decades was supposed to result in the agricultural colonization of the west; in actuality, it resulted in considerable acreage being acquired by timber companies. The social and political climate was such that illegal access to timber was the norm; the lumber industry took shape within an atmosphere that tolerated theft, fraud, and bribery.

Ecological Impact of Working the Land

During the late nineteenth century the fledgling timber industry's impact on the forest was marginal (Boag 1992; Robbins 1989, 1997). Timber removal was extremely labour-intensive; it could take days for a logger to remove one or two large spars. Only a few giant trees were extracted from an area at a time. Trees were felled with axes and cut into movable sections with crosscut saws. Sections were hitched to a team of oxen and dragged to the ocean (or river) along a skid road, "a corduroy track heavily greased with dogfish oil" (White 1980, 87). In order to ensure transportation, logging always took place in the vicinity of water, thus only the periphery of the forest was logged. These practices left the forest's integrity and gene pool intact, and they promoted many of today's healthy late-successional forests. Today, the avoidance of large seed- and gene pool-decimating clear-cuts is the basis for the promotion of smaller more frequent clear-cuts and selective logging – the assumption being that intermittent cutting over a large area is less destructive than is clear-cutting/extracting the same number of trees over a small area.¹¹

Industrial Logging

Historian and one-time Coos Bay, Oregon, logger William Robbins (1985, 1989, 1997) argues that industrial forestry on the Pacific slope is a twentieth-century phenomenon. A set of technological innovations, a dramatic increase in population, and the availability of large-scale capital propelled the twentieth-century development of the Pacific Northwest. Drastic changes in the structure and biological composition of the forest were the result of the tremendous desire and potential for profit provided by the use of the donkey steam engine and the narrow gauge railroad. The logging railroad gave loggers access to previously untouched stands of timber. Even the early versions of the donkey steam engine substantially reduced the cost of timber harvesting and enabled winter logging (heretofore, oxen would become

mired in mud during the long, wet winter). The engine powered first one and later as many as five winches that hauled in the fallen logs. Loggers attached cables from these winches to metal chokers, which were wrapped around the logs. Massive stands could thus be cleared (Booth 1994, 76; Robbins 1988). High-lead logging followed: "The high lead was added to earlier ground-lead logging in about 1910; operators were able to move logs with one end suspended in the air, a technique that greatly increased both the volume of timber that could be moved and the incidence of injury and death to workers" (Robbins 1990, 6).¹²

The extension of the railroad into the Pacific Northwest brought with it both an enormous population boom and considerable capital investment. In the first decade of the twentieth century, the population of Washington State increased by 120 percent: 62 percent in Oregon and 60 percent in California (Robbins 1989, 235). Expanding markets, human migration, technological innovations, and "speculative mania in an investor's frontier" paved the way for an ongoing cyclic pattern. "The big profits were in cutting, stripping and then moving on to the next stand. The dynamics and logic of a social system in which profit and loss were the major criteria for land management decisions both created and impoverished lumber towns" (Robbins 1985, 417).

Companies rallied to obtain as much timberland as possible, particularly since the largest profits resulted from land speculation rather than mill owning. Massive speculation left huge volumes of timberland in the hands of single investors – Frederick Weyerhaeuser being a case in point (Robbins 1988, 27). Moreover, the purchases had to be paid for by cutting rapidly and extensively. This triggered an excess of production over demand. The resultant instability only increased the need to liquidate timber as people desperately attempted to avoid bankruptcy during over-supply periods (Robbins 1989, 236). By the late nineteenth century, regional and national trade organizations emerged in an effort to predict market demand, regulate timber supply, and rationalize practices. But, for the most part, the boom-bust cycles persisted and thus ensured that the timber industry "was not and could not be a humane system" (236). The system's inhumanity also inspired the popularity of radical labour movements, such as the International Workers of the World (Wobblies) (237).

Industrial logging marks the beginning of the forest devastation that can now be seen in aerial photographs (Devall 1993). Many timber workers and representatives have come to resent these photographs, insisting that they show only the worst cases. However, long-time logger and field consultant Jim Stratton agrees that logging "leaves a horrible mess." The gouged land tends to collect water, which encourages the growth of alder and hemlock. Oregon's recent devastating floods and mudslides have also been attributed to the collection of water and the destabilization of soil typical of clear-cut sites.

The clear-cut's dormant fire hazard was reduced by modern slash-burning practices,¹³ but its ecological consequences remained. Cleared land brought an excess of berries, fireweed, and mammals who prefer to graze on infant forest vegetation. Because logging eliminated stands of the virgin forest that had once seeded neighbouring cutover lands, adjacent seed trees were less available than they had been historically. Young forests came to border recently cut forests, cutting off yet another seed source. The pattern typifies what is currently referred to as a "fragmented" forest. Earlier bull-team logging left, alternatively, a large number and variety of trees at the logged site – an abundant, diverse seed source crucial to forest regeneration. Thus today's "New Forestry" – a cornerstone of cutting-edge, ecosystem management – is, in part, a return to the messy, bull-team cuts of early logging.

Public Lands, Conservationism, and Environmentalism

A large body of work documents the late-nineteenth-century/early-twentieth-century presence (and popularity) of ideas that parallel those of contemporary environmentalists and conservationists. The idea, for instance, that the Pacific Northwest forest might be depleted just as had been the lesser forests to the east was alive and well in the early part of the twentieth century. Westerners and public foresters largely agreed that the forests were poorly managed (Robbins 1985, 1989). A 1912 report by an Oregon State forester cautioned against the fallacy that these forests were inexhaustible (Robbins 1985, 416). More broadly, calls for sustainable harvests and sustainable communities increased as "the gospel of efficiency" took hold (Hays 1958; see also Hirt 1994). Efficient use of forest resources was touted as the path to civic and economic sustainability, with primary emphasis being placed on the material wastefulness of most logging operations. Conventionally, anything below the first branches of a felled tree was discarded, and the remaining stumps often stood three to six metres above the ground. It was argued that the waste that occurred could have been of benefit (White 1980, 93) and that only better engineering of the forests would ensure the sustainability of annual timber yields (Hays 1998, 337-38). This "efficiency" legacy lacked explicit concern with forest health per se; nonetheless, it is the basis upon which loggers identify themselves as conservationists who have long embraced an environmental ethic. They see themselves, then and now, as sensitive to "sound" (especially non-wasteful) logging practices.¹⁴

Much earlier, naturalist George Perkins Marsh (1864), a Renaissance personality from Vermont, published the remarkable *Man and Nature*.¹⁵ At a time when many Americans perceived nature as a behemoth to be subdued, Marsh documented the sensitivity of what would today be called an ecosystem. He criticized the (over)cultivated gardens idealized by the Jeffersonian tradition, deeming them an agent of destruction, and he outlined the impact

of logging on watersheds, water supply, salmon runs, and flooding (Robbins 1985, 1-2). Clear-cutting in watersheds, he argued, “resulted in droughts, flood, erosion, and unfavorable climactic conditions”; that is, human-generated disasters that he argued were “responsible for the decline of Mediterranean empires” (Nash 2001, 104). He was among the first to link preservation of wild land with economic well-being, and he wisely cautioned his audience neither to err in the manner of Old World civilizations nor to “wait till the slow and sure progress of exact science has taught us a better economy” (Robbins 1985; Shabecoff 1993, 58).

Marsh’s discourse was as scientific as that of John Muir, Ralph Waldo Emerson, and Henry David Thoreau was spiritual-cum-moral. These three men are generally associated with transcendentalist philosophy, which, in its New England form, contemplated nature’s capacity for spiritual healing.¹⁶ Nature was regarded as the “proper source of religion.” In this sense transcendentalists carried on the tradition of such Romantic poets as Wordsworth, who believed in the “moral impulses emanating from the fields and woods.” “In Wilderness,” wrote Emerson, “I find something more dear and connate ... [I]n the woods we return to reason and faith.” Further, the transcendentalist belief in the moral goodness of nature and the human spirit’s ability to thrive in the wilderness contradicted both the frontier era’s quest to subdue the land and the Puritan belief that humanity’s inherent sinfulness “ran rampant in the moral vacuum that was wilderness” (Nash 2001, 86).

Thoreau and Muir are also closely associated with early efforts at wilderness preservation. Muir was one of the Sierra Club’s founding members, and, as will shortly become evident, he inspired many contemporary environmentalists, playing a central role in getting land designated to a national system of forest reserves and parks. Emerson, more theorist than practitioner, lectured on the need for a harmonious synthesis of reverence for nature and tolerance of technology. He believed that nature could recover from the damaging impact of society and technology. Thoreau, meanwhile, was legendary for living in nature and for his fear of technology’s impact on the land. He saw wilderness as the counterbalance to the heavy burdens placed on the human soul by labour and the stress of living in an increasingly materialistic, urbanized society (Cronon 1996; Shabecoff 1993).

Though often ignored in historical accounts of American environmentalism, several prominent women (mostly White) writers of the period heightened public sensitivity to the importance of cultivation based on indigenous plant species, emphasized the dynamism of natural systems, and called for the preservation of natural landscapes (Norwood 1993). In 1850, Susan Fenimore Cooper (daughter of James) published *Rural Hours*. Her writing admonished American (particularly female) gardeners for their preoccupation

with imported agricultural and garden species and “hothouse plants secluded in an artificial environment” (Cooper 1850). She further implored her readers to “resist ambitious manipulation of God’s [natural] creation” (Norwood 1993, 40). On the other hand, Mary Treat, published naturalist and correspondent of Charles Darwin, “viewed nature as much less static than did Cooper” and, given Darwin’s insights, “argued against human supremacy in an hierarchical natural world” (41). Towards the turn of the century, Mary Austin, inspired by John Muir, worked on political campaigns to conserve water and wilderness, and she wrote several popular books (e.g., *The Land of Little Rain*, and *The Land of Journey’s Ending*), each credited for its influence on American environmental values (49).

Public Lands

The national forest and national park systems were established following the removal of Aboriginal populations to reservation land in decades prior and through the General Land Revision Act, 1891 (Robbins 1985; White 1991). The act gave the president authority to create forest reserves by proclamation. Further amendments to the act in 1897 specified the need to manage forests in order to protect watersheds and furnish a continuous supply of timber to the citizens of the United States. It was assumed that when private timber was depleted, public forestland could be harvested. The act also gave the secretary of the interior the power to regulate and manage reserve lands (Caufield 1990, 1; White 1991, 405-407; Wolf 1993, 1-3).

President Harrison placed three million acres (1.2 million hectares) in six forest reserves in 1891 and 1892, and he added nine more reserves to make a total of thirteen million acres (5.6 million hectares) before leaving office (Robbins 1982, 23). By 1894 there were seventeen reserves with nearly eighteen million acres (7.3 million hectares), and in 1897 twelve new reserves (totalling thirty-nine million acres or 15.8 million hectares) were added to them (Wolf 1993, 2). Early-twentieth-century suspicions of a timber famine on privately owned lands were common, and this motivated the assignment of additional lands to the reserve system (Robbins 1988).

Public response to the forest reserve system was mixed. Westerners criticized the reserves because their existence infringed upon local interests and the rights of small-time settlers. Many dismissed the program as “an eastern conspiracy to keep public lands from the common citizen” (Robbins 1985, 8). Major timber companies supported the nationalization of large tracts of land in the west because it removed acreage and, therefore, competition from the hands of small milling operations and independent (“gyppo”) loggers. Dissent, particularly from western senators, continued until, in 1897, President McKinley signed into law an amendment that “opened up the resources in the reserves to managed public use” (Robbins 1982, 26). By

1907, with considerable help from conservationist president Theodore Roosevelt, the system had increased to 159 reserves containing nearly 151 million acres (61.2 million hectares). Twenty-one new national forests were added just before Congress stripped Roosevelt of the power to create reserves by proclamation (White 1991, 407-09).

The initial congressional events that secured and increased the acreage of national forest reserves are fondly connected in the public mind with the presidency of Theodore Roosevelt – a remembrance that harbours some truth and some fiction. Roosevelt was not yet president when the 1891 act that initiated the forest reserve system was established. But he clearly believed in protecting public land from wasteful corporate consumption, and he believed that public land needed to benefit all citizens. These ideals initiated decades of public scrutiny of, and challenges to, Forest Service policy. Of Roosevelt's legacy, Shabecoff (1993, 59-69) writes: "The democratic principle had been established and would never be surrendered by those who cared about the land." Because of Roosevelt, exploitation of the nation's resources would always have to be "justified under the guise of spurring economic growth, protecting jobs, safeguarding national security, or some other subterfuge."

Roosevelt endorsed the ecosystemic ideas of George Perkins Marsh and possessed some of John Muir's spiritual appreciation of nature; however, ultimately (to the aggravation of more than a few contemporary environmentalists), he promoted the economic benefits of forests and placed his trust in the science of forestry advocated by Gifford Pinchot (Robbins 1982). Pinchot was the first head of the United States Forest Service (the first agency to actively manage federal forestlands). By all accounts Pinchot was a charismatic populist, and he was responsible for modern forestry's attention to wood-product output. He was also responsible for the expansion of the Forest Service bureaucracy and the promulgation of the forests as a good for public use (Hirt 1994; Robbins 1985).

To many, he continues to embody the "right" approach to forestry. Trained in Germany, Pinchot imported European ideas of scientific management, holding that trees were a manageable crop (Caufield 1990, 57; Shabecoff 1993, 65; White 1991, 407). Pinchot, like Roosevelt and even Muir, deplored the timber industry's inefficient use of land, which he saw as squandering the forest's economic potential. Lumbermen, he noted, were "concerned with squeezing the last penny from the woods without regards to consequences," whereas the "forester managed them scientifically so as to obtain a steady and continuing supply of valuable products" (Nash 2001, 134). Pinchot also successfully added the national forests to his managerial domain, using the farming motif to justify the transfer of all Forest Service reserve land from the Department of the Interior to the Department of

Agriculture (where it resides today). Aesthetics, recreation, and wildlife protection meant little to Pinchot (Shabecoff 1993, 69); his favourite aphorism was “wilderness is waste” (White 1991, 409). At the same time, the democratic essence of the Pinchot/Roosevelt legacy continues to be revered: Pinchot and Roosevelt were “inventors of the commons,” and they promoted a public land base whose purpose was to serve the public good (Worster 1993, 107).

The Split

The rift between Muir-via-transcendentalism-style environmentalism and Pinchot-style conservationism can be traced to (1) the development of policy to manage these new public forests and (2) a subsequent battle over a steep valley within the reserved wild land – land from which Yosemite National Park was derived. Initially, both conservationists and environmentalists fought for the expansion of the forest reserve system. Muir supported Pinchot-style forestry because he believed that anything was an improvement over unregulated timber cutting and because he assumed that some portion of the federally owned forestland would be committed to wilderness. Forests, declared Muir (sounding very like Pinchot), “must be not only preserved but used ... [they must] be made to yield a sure harvest of timber, while at the same time all their far reaching [aesthetic and spiritual] uses [must] be maintained unimpaired” (Nash 2001, 134-35). Indeed, Muir and Pinchot were initially close friends and were mutually involved in the 1895 Forest Congress convened by the National Academy of Science to develop management guidelines for national forests. Yet, by 1897, it became irrevocably clear that Muir imagined the forests as a pool from which to set aside significant undeveloped area, whereas Pinchot imagined “opening all reserves to carefully managed economic development” (136). When Congress finally passed the 1897 Forest Management Act, Pinchot’s vision prevailed. Wilderness was not to be the reserves’ primary use. Again, as noted above, the act made it clear that the forests’ primary purpose was “to furnish a continuous supply of timber for the use and necessities of the United States” (137).

The final dissolution of the peaceful coexistence of utilitarian conservationism and wilderness advocacy occurred during the (in)famous dispute over Yosemite National Park’s Hetch Hetchy Valley. Yosemite was “the first tract of wild land set aside by an Act of Congress in 1864” (Spirn 1996).¹⁷ Hetch Hetchy Valley (known for a beauty equal to that of Yosemite Valley) was included in the park’s borders under the National Park Act, 1890, following a campaign led by Muir (Long 1995). Over successive years (from 1880 through 1907), city engineers in San Francisco had proposed damming the valley’s Tuolumne River in order to establish a public utility that would

supply inexpensive power to San Francisco. The battle for and against was fought on ethical grounds, pitting the public good (to wit, wresting the control of power resources away from “greedy” developers) against the spiritual-aesthetic good of preserving a pristine nature. True to their respective populist and spiritualist bents, Pinchot supported the project while Muir vehemently opposed it (labelling Pinchot’s supporters “temple destroyers”). Both men solicited President Roosevelt’s backing, particularly as the public demand for inexpensive water and power heightened following the 1906 San Francisco earthquake and fires. After considerable indecisiveness, Roosevelt came down on Pinchot’s side, and, in 1913, the dam became a reality (Shabecoff 1993, 73-75; White 1990, 412-15).

Leopold’s Land Ethic

In the years that preceded the Second World War the demands for timber harvesting on the public lands of the Pacific Northwest were relatively slight. At lower elevations, private timberland was still being cleared of its most lucrative trees; indeed, the overwhelming majority (95 percent) of wood products produced nationally was derived from private land (Hirt 1994). To a certain extent, this allowed an alternative breed of outdoor-enthusiast forester to thrive within the Forest Service. Many (Caufield 1990; Nash 2001; Worster 1993) cite this as the period when public forester Aldo Leopold gained his inspiration. Leopold worked under Pinchot and was one of the first foresters to advocate setting aside wilderness reserves within the public land system. Leopold’s (1966) ideas, well represented in *A Sand County Almanac*, captured the ecological and spiritual motivations behind his desire for wilderness preservation. He is considered a founder of wildlife-management science but is more popularly known for his land ethic. Wary of the forestry profession’s preoccupation with maximum yields and the capitalization of forests, Leopold insisted that people shift their position from that of being land dominators to that of being members of an overall biological community. His critical 1939 essay, “A Biotic View of Land,” published in the *Journal of Forestry*, emphasized “forests as communities of living, interdependent organisms” (Hirt 1994, 42). Leopold viewed human beings as part of this interdependent structure; to destroy any one part was thus to threaten the whole – humanity included. What was imperative, insisted Leopold, was a new “land ethic” that extended the definition of community “to include the soils, waters, plants and animals, or collectively, the land” (Nash 2001, 197). More important, for ecologists, was Leopold’s claim that “a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise” (197). On leaving the Forest Service in 1935, Leopold founded the Wilderness Society.

Postwar Years: "Getting Out the Cut"

Initially, Leopold's ideas fell on deaf ears, nor was the growing public interest in recreational uses of the forest taken particularly seriously. The Second World War and the housing boom that followed it generated a tremendous demand for timber. When faced with conflict between preservation and production, the Forest Service invariably sided with the latter. Further, the agency tended to reconcile the need for tradeoffs between opposing public demands on the forest by adopting a blind spirit of optimism about the future timber output promised by "intensive" forest management (Hirt 1994). As this demand coincided with the previously anticipated timber famine on private lands, cutting on public lands increased. Although gaining access to remote areas was difficult and, at first, resulted in a limited harvest, technology soon intervened. The arrival of chainsaws, diesel engines, trucks, and roads in the woods meant an escalating capacity for the rapid cutting, hauling, and milling of timber. More recently, the introduction of processing machines (which can quickly harvest and strip smaller logs) and the application of computer technology to milling have increased technological efficiency. This "efficiency" has accounted for a vast reduction in available timber employment (Robbins 1988).

Except for some market fluctuation, the demand for timber in the 1950s and 1960s continued to climb, although, for individual loggers in individual towns, intensive localized cutting ensured the continuation of boom-bust cycles. In 1946, less than one billion board feet of timber was cut from the national forests in Washington and Oregon. By 1968, the annual cut had skyrocketed to 5.1 billion board feet, reaching 5.6 billion board feet in 1987 (Dietrich 1992, 74). The Forest Service estimates that, out of an original twenty-five million acres (10.1 million hectares) of old growth, only 5.4 million acres (2.2 million hectares) remain in the public trust.¹⁸ In the late 1980s, a Wilderness Society inventory found this to be a gross overestimate. Its findings led to a figure of 1.5 million acres (607,500 hectares), about one-fourth the agency's estimate (Caufield 1990, 65).

Remarkably, as of the year 2001, 57 percent (or sixty-one million acres [24.7 million hectares]) of Oregon's land is owned by the federal government and is controlled by either the US Department of Agriculture's Forest Service or by the Department of the Interior's Bureau of Land Management (Secretary of State 2001, 190-95). Approximately 27.5 million (11.1 million hectares) of these acres are forested, though not all of them are capable of producing timber for commercial harvest. The Forest Service and the Bureau of Land Management are responsible for all timber sales on federal public lands. The vast majority of the commercially viable (timber) lands are administered by the Forest Service via Oregon's thirteen different national forests. The Bureau of Land Management, whose territory is primarily the drier eastern rangelands, does, however, administer the very

timber-productive Oregon and California lands. These lands were returned to the government when the Oregon and California Railroad defaulted on promised rail routes. Generally speaking, the Bureau of Land Management has a worse reputation for forest management than does the Forest Service.¹⁹ Nor should the impact of congressional legislation on timber extraction be underestimated. House and Senate representatives have often staked re-election on the generation of federal bills designed to promote timber jobs and tax revenues by selling timber from public lands.

Timber's Workforce

Colloquially, the use of the imprecise, though heuristically useful, distinction between "big" and "small" timber is common. Big industry includes some of the most powerful and affluent multinational corporations in the global arena. They are the corporate descendants of late-nineteenth-century, early 1920s timber barons, who went on to found, among other giants, Weyerhaeuser, Boise-Cascade,²⁰ ITT-Rayonier, Georgia Pacific, Willamette Industries, and Louisiana Pacific. Their corporate legacy and their accompanying political power is immense; however, as an employing industry, their legacy is waning. In 1950, 62 percent of Oregon's manufacturing workforce was employed by the forest products industry, producing lumber, paper, and wood products. By 1998, only 21 percent of the state's manufacturing workers were employed by the industry. The Office of the Secretary of State attributes roughly one-half of this decline to loss of employment in forest products and the other half to the increase in employment provided by other industries. By 1995, high-tech manufacturing surpassed the forest industry with regard to total number of employees and total overall payroll. As of 1998, 28 percent of all manufacturing workers were high-tech employees, and 75 percent of them were located in the Portland area.²¹

The non-corporate, small business, and worker segments of the timber industry have little economic and political clout compared to their corporate counterparts; however, the two are related in important ways. Both mill owners and corporate timber hire their own labourers and contract with independent loggers, cutters, and logging truck drivers to move the logs from the forest to the mills. Small mill owners procure their logs by bidding on Forest Service and Bureau of Land Management timber sales when any land they own privately becomes exhausted or starts providing a less profitable harvest. Bidding is an expensive and timely process; several years can pass before an accepted bid (deposit included) is legally cleared for cutting. Periodically the expense is more than a small mill can carry, thus small mill owners often subcontract with big timber by purchasing standing timber that has already cleared all financial and legal hurdles. In this sense, small players and workers are often caught in a paradoxical bind as they both compete with and depend upon big timber for employment.

Organized labour, which represents many of the millworkers but not, by definition, independent gyppo loggers and small contractors, supported President Clinton's election in 1992 and again in 1996. Meanwhile, the nationally powerful AFL-CIO supported, both on record and at rallies, the plight of Oregon's timber-affiliated unions: the International Woodworkers of America (IWA) and the Western Council of Industrial Workers (WCIW). But, by the mid-1990s, the membership of both the IWA and the WCIW had fallen dramatically in Oregon. The IWA, for instance, lost nearly two-thirds of its members between 1979 and 1994 (Robertson 1994). Consequently, the unions were not a formidable force during the years of the spotted owl crisis.

Most aptly attribute the unions' diminished presence to structural changes in the industry and to the 1980s market (not to mention the impact of Reagan's overtly anti-union presidency). But other influences are also relevant. For example, as early as the 1940s and 1950s, timber industry officials were fully aware of, and sought to undermine, union-consolidated power. The effect of that effort remains. In the aftermath of the brute force used to suppress the increasingly powerful (and activist) Wobblies in the early decades of the twentieth century, industry officials switched tactics, engaging, instead, in a public relations blitz that fused with, and greatly encouraged, the emergence of timber-related festivals and rituals in the rural west (Walls 1996). Popular to this day are the Paul Bunyanesque sports festivals, wherein individual loggers compete in tree climbing, cross-cut sawing, log rolling, and so on. The events were (and are) very un-labour in that "no unified mass of marching workers" protesting corporate power is evident; rather, "the effect of the sports show was to ennoble the logger symbolically but simultaneously subvert loggers' solidarity as union members and to inculcate the values of competition, rugged individualism, and hard work" (125).²²

The decline in union presence, alongside the history of public ritual in the rural Pacific Northwest, is currently evident in the very active support grassroots timber activists received from the Gyppo Loggers Association (GLA). The GLA is the trade organization responsible for representing gyppo loggers and their small mill- and woodlot-owning counterparts: it is the communication link and representative body for independent contract loggers. Often at odds with the unions, gyppo loggers are "a different breed." They are not, according to a former forest planner, "big timber." "They are not Weyerhaeuser. They are not Boise-Cascade. These are family-owned small businesses – independent S.O.B.s, every one of them ... and really nice. I mean if you were one of them, they'll do anything for you" (Porter 1996, 114). The fierce independence of many gyppo loggers and small contractors was, as it turns out, a natural fit with the populist logger-identity-based movement of the 1990s.

Early Biodiversity Management and the Wilderness Wars

In 1960, the first of a set of legislative acts meant to represent both environmental and industry interests was introduced. Under pressure from environmentalists and recreationists, the Forest Service came out with a new mission statement: the Multiple Use Sustained Yield Act, 1960.²³ Multiple uses incorporated outdoor recreation, range, timber, watershed, wildlife, and fish interests. The act is notable for its recognition of non-commodity uses of federal forests and for recognizing wilderness, however obliquely, as an idea consistent with a multiple-use framework (Hays 1998, 133). However, the act's lack of clarity left the Forest Service with considerable discretion regarding timber sale and resource decisions (Booth 1994, 144-45). The timing coincided with two events that are singularly important to modern environmentalism: (1) the posthumous publication of Aldo Leopold's 1959 article on biodiversity²⁴ and (2) the publication of marine biologist Rachel Carson's (1962) *Silent Spring* – a work that has been called the basic book of North America's environmental revolution. *Silent Spring's* stirring argument exposed the actual and potential consequences of using the insecticide dichlorodiphenyltrichloroethane (DDT). Carson's work continues to be cited in the inspirational biographies of environmentalists, and it spurred dozens of environmental groups into action. Indeed, some of these groups – in the shadow of Muir's legacy – were central to the passing of the Wilderness Act, 1964.

The Wilderness Act, the first substantive departure from traditional forest policy, permitted Forest Service lands to be withdrawn by Congress from the timber pool upon their being reviewed under the Roadless Area Review (RARE) plan (Hays 1998, 133). Wilderness advocacy groups proposed numerous areas they deemed worthy of the wilderness designation. The Forest Service was, in turn, given ten years to designate wilderness areas. By 1972, less than 22 percent of the fifty-six million acres (22.7 million hectares) recommended for wilderness were considered even worthy of further study, never mind protection. It was not until 1984 that the RARE II studies resulted in actual wilderness set-asides in Oregon, Washington, and California. (Almost forty years had passed since Leopold's request for wilderness reserves within the public land system.) The Forest Service defended the delay, saying it took time to identify pure, unadulterated wilderness. Wilderness advocates dismissed the postponements as self-indulgent posturing, accusing the agency of hiding behind "purism" in order to limit the total land eligible for wilderness (Booth 1994, 151-66; Durbin 1996, 31-33, 56-63).

Enter the Northern Spotted Owl

The northern spotted owl first emerged as a dominant concern in the forest dispute in the late 1980s. However, this would not have been possible had Congress not passed three central pieces of legislation in the 1970s: the

National Environmental Policy Act, the Endangered Species Act, and the National Forest Management Act. The National Environmental Policy Act (signed by President Nixon in 1970) requires environmental impact statements for environmentally disruptive “federal actions” (timber sales included). It also requires that the public be included in the decision-making process (Durbin 1996, 32; Robbins 1985, 259). The National Forest Management Act, 1976, emphasizes a balanced consideration of (1) the forests’ multiple uses and (2) the need to protect the diversity of plant and animal species. The Forest Service further specified the act’s implications by interpreting it to mean that biological diversity was paramount. This was expressed as the “need to maintain viable populations for each tree species” (Hays 1998, 142). Many read this as a sign that forecast the end of Douglas fir monocropping. During the same period, the crucial Endangered Species Act, 1973, provided the potential to protect all species and their habitats despite socio-economic consequences. The ESA thus became the main legal tool for environmental groups and ushered in today’s era of environmentalism, which is distinguished by relying more upon scientific (especially biological) argument than upon the need for wilderness preservation per se (Durbin 1996; Hays 1998).

The northern spotted owl was on the first list of threatened species that accompanied the Endangered Species Act. Fiercely contested 300-acre (122-hectare) owl reserves were initiated in 1977 despite resistance on the part of many Forest Service employees and loggers. Discontent escalated dramatically in the 1980s, when radio telemetry studies of owl habitats found that reserves needed to consist of at least 1,000 and as many as 10,000 acres (4,050 hectares) (Dietrich 1992, 76-79; Durbin 1996, 48). Pacific Northwest environmentalists were aware of the implications of the new studies, but they doubted the general public’s ability to support massive timber restrictions on behalf of an owl. They were forced to reconsider, however, when, in 1987, a small Massachusetts group (GreenWorld) filed a petition with the Fish and Wildlife Service to formally list the owl as an endangered species (Brown 1995, 29). Initially (1987), the Fish and Wildlife Service claimed that the owl did not need to be listed – a decision that was later reversed (1989) due, in part, to the growing pressure of an increasingly vocal and financially supported environmental community (Durbin and Eisenbart 1993, 10).²⁵

Regardless, once a species is listed, the Endangered Species Act requires the formulation of scientifically defensible recovery plans. Government and academic biologists dismissed as inadequate the first plans for the recovery of the spotted owl. Therefore, an increasingly impatient environmental community initiated a flurry of lawsuits that culminated in US district judge William Dwyer’s 1990 and 1991 decisions to block all Forest Service timber sales.²⁶ He ruled that no sale could proceed until an adequate plan for the

protection of the spotted owl was approved by the court (Dietrich 1992; Durbin and Eisenbart 1993). Since 1989, 187 Pacific Northwest mills – 40 percent of the then existing mills – have been closed. Industry analysts estimate that 22,000 timber jobs have been lost; meanwhile, the Clinton administration provided 1.2 billion dollars to retrain workers and to assist depressed rural communities (Porter 1999, 4). Despite industry records, the questions concerning the number of jobs lost and the extent of the impact of decreasing timber employment in the region remain open. Some argue that the expanding 1990s economy was sufficient to offset job losses; others argue that there are many economies in Oregon and that many rural communities were especially devastated.²⁷

The Clinton Administration

President Clinton inherited the responsibility for coming up with an adequate owl protection plan after the first Bush administration resisted the implications of a conservative plan involving extensive logging restrictions. The 1993 Forest Summit produced the Clinton administration's first effort to draft a comprehensive, "scientifically defensible" forest plan that would protect the owl along with other potentially threatened species. Judge Dwyer's injunctions and the final Northwest Forest Plan's promise of a comprehensive restructuring of forest policy shifted the focus from the protection of individual species to ecosystem management – a shift that, ostensibly, would take into account logging's impact on all species. Pointedly, the plan proposed reducing annual harvest levels by 80 percent – from the five-plus billion board feet reached in the 1980s to approximately 1.2 billion board feet – the largest scientifically defensible harvest on federal Pacific Northwest forests. The backroom lobbying and legal wrangling that engulfed the attempt to achieve an "acceptable plan" were described by all sides as bitter, draining, and discouraging.²⁸

Many insist that the Clinton plan is working, but its record is, at best, mixed. It was stalled dramatically by the conservative shift ushered in by the 1994 federal election, which brought with it numerous Republican victories based on overtly anti-environmentalist platforms. That same year record wildfires swept the west, destroying four million acres (1.6 million hectares). Under pressure from a Republican majority in Congress, "the Administration officials saw salvage (logging) as a way around their earlier tough talk of 'science-based' forestry policy, a means, under the auspices of an emergency, to find a few billion feet of hassle-free timber for noisy constituents out West" (Roberts 1997, 49). Charles Taylor (R-NC) produced a "salvage rider," more formally known as the Federal Lands and Forest Health Protection Act, 1995 (Roberts 1997, 257). Under the provisions of this act, salvage timber sales, easily defensible on the basis that they eliminated diseased trees, were exempt from appeal under extant environmental laws.

But the act's definition of salvage logging included "dead and dying" trees as well as associated "green trees" (Roberts 1997, 49). Blocking the salvage act in Congress was not possible because it was tacked on to universally sympathetic legislation; namely, reparations legislation for the Oklahoma City bombing (see the Emergency Supplemental and Rescissions Act, 1995). Even Peter DeFazio (D-OR), the notoriously even-handed representative from Oregon, criticized the act for defining salvage so broadly "that it opened the door to wholesale logging in the region's remaining old-growth forests and roadless areas" (Durbin 1996, 257). A new series of bitter direct-action protests ensued at salvage sale sites, while others campaigned locally and nationally to prohibit "logging without laws." Finally, as 1996 drew to a close, Clinton rescinded the rider, a gesture made possible by the moderating forces that re-elected President Clinton and Vice-President Gore that same year.

President Clinton's finalized 1994 Northwest Forest Plan nonetheless reigns as the region's key public lands forestry policy document – a document in which the language of logging has shifted from "allowable cut" to "ecosystem management." In the eyes of both timber advocates and environmentalists, the plan's long-term implications remain uncertain. Environmentalists are cynical about past and future salvage logging, while timber-dependent workers are still suffering in the wake of legal bans on timber sales. Further, the plan has not resulted in an end, as once hoped, to lawsuits, appeals, or court injunctions. In the summer of 1998 Judge Dwyer blocked 400 million board feet of proposed timber sales because the Forest Service failed to survey for rare plant and wildlife species, and in August 1999 a judicial ruling halted nine federal timber sales in the Pacific Northwest for the same reason (Murphy 1999, D2). Most recently, Oregon's Office of the Secretary of State (2001) commented that the decline in harvests on federal lands within the state's borders had plummeted from highs of several billion board feet to a much reduced 383 million board feet in 1999. Yet, this could well change under President Bush. The new under-secretary of the Department of Agriculture, who is responsible for overseeing the Forest Service, has pledged to deliver the full volume of timber allowable under the Northwest Forest Plan (Harwood 2002).



There is an undeniable ebb and flow to this historical sketch. The social, biological, and political events that unfolded during the colonization of the west involved a series of gains and losses. Much has irrevocably changed, some things have not. Land use in the Pacific Northwest did not always imply ecological devastation; there is another history (Aboriginal and non-Aboriginal) that we have begun to learn from all over again. Selective logging,

once conducted purely due to technological restrictions, may now hold considerable promise for those promoting minimal, low-impact logging. A look at the legislative history of the region reveals both a recurring tolerance for illegality and a strict application of some of the most biologically protective laws in the world. Theodore Roosevelt is still “the conservation president,” but Roosevelt-style conservation is closer to what today’s loggers would support than it is to what today’s environmentalists would support. Popular though it is right now, the concept of sustainability is not new to the timber industry, to public lands policy, or to environmental disputes over how to manage the forests. The loggers’ belief in an activist populism and a continuing forest that will replenish itself indefinitely can be traced directly to the Roosevelt-Pinchot legacy. Meanwhile, the roots of modern-day environmentalism can be traced most prominently to John Muir’s spirituality, Leopold’s land ethic, and the ecosystemic sensibilities articulated by George Perkins Marsh and Rachel Carson.