The United States Forest Service and the political construction of ecosystem management

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The U.S. Forest Service
and the
Political Construction of Ecosystem Management

by

Rick Freeman

Presented in Partial Fulfillment of the Requirements of a
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This study is a history of the U.S. Forest Service's adoption and construction of Ecosystem Management as official policy for managing the national forests.

Secondary sources are used to establish the historical background for this story, such as documented histories, policy texts, newspaper articles, and widely-distributed magazine articles. Also, secondary sources are used as primary evidence when their popularity reflects attitudes and political positions influential during their time. To establish events and developments during the formative years of ecosystem management (1989-1993), I provide, as primary evidence not available in secondary sources, text from interviews, memos, letters, and speeches. I conducted interviews with seven of the people who were prominent in the Forest Service's adoption of Ecosystem Management. Approved transcriptions of these interviews are on file at the University of Montana's Mansfield Library.

This history unfolds along the lines of two opposite, yet simultaneous movements -- the invalidation of Forest Service agency and the official political revision and reassertion of that agency. In the 1980s and early 1990s, the Forest Service, as a political entity in an environment of conflict, suffered a drastic loss of legitimacy, agency, and identity. During this dilution of the Forest Service's persona, a power shift was occurring -- largely in reaction to court mandates enjoining the Forest Service from timber harvest on various western forests. Amidst this power struggle arose a new framework to guide decision making regarding millions of acres of forest declared to be habitat of the northern spotted owl (and ultimately, of other threatened species).

During this reconstruction, the political actors used science to aid their cause, creating a political position of power for the non-timber-focused applied sciences -- particularly conservation biology and landscape ecology. These scientists, as part of the bureaucratic milieu of the universities and agencies, were influenced by the several "crises" that attended the political upheaval. And, those who would translate scientific statements into science -- themselves scientists -- would become influential in Forest Service policy. Congress, the courts, the Forest Service, and other executive agencies summoned the work of these various scientists in constructing their response, which emerged ultimately as ecosystem management. It was one particularly acute crisis, however -- the embarrassment of the Bush administration during the Rio Conference on global warming in Brazil, 1992 -- that precipitated the adoption of ecosystem management as a significant policy event.
Chapter 1
Introduction

On June 4, 1992, in a memo to regional foresters and station directors, Forest Service Chief Dale Robertson announced what he called “the marriage” between the agency and Ecosystem Management.\(^1\) He also laid out the general principles and instructed his audience to report back within 90 days regarding their strategies for implementing the policy.

Why is this event significant? What did the memo signify? Was it the emergence of a new policy paradigm — a new “ecological approach” to public forestry? Was his memo a rewording of the same old emphasis on timber? Perhaps it demonstrates some sort of development or evolution in environmental policy? Perhaps, more importantly, the memo signifies that, at heart, public forestry and forest policy are political in origin. This dissertation is a historical inquiry into the processes and events that culminated in Robertson’s memo of June 4, 1992. The study demonstrates that forest policy is, indeed, based upon politics.

The paper narrates the history of the Forest Service’s “marriage” with Ecosystem Management as a political story, with subjects, agendas, and conflict, itself part of a larger political story. This history, as I have written it, unfolds along the lines of two opposite, yet simultaneous movements — the invalidation of Forest Service agency and the official political revision and

\(^1\) Robertson to Regional Foresters, June 4, 1992.
reassertion of that agency. In the 1980s and early 1990s, the Forest Service as a political entity in an environment of conflict endured a drastic loss of legitimacy, agency, and identity. During this dilution of the Forest Service's persona, a power shift was occurring — largely driven by court mandates enjoining the Forest Service from timber harvest on various forests. Amidst this power struggle arose a new structure for decision making regarding millions of acres of forest declared to be in spotted owl habitat (and ultimately, the habitat of other rare species). During this reconstruction, the political actors called on science to aid their cause, creating a political position of power that the applied sciences (especially wildlife biology, hydrology, and ecology) had not previously experienced. Congress, the courts, the Forest Service, and other executive agencies, summoned the services of a scientific community and its production of science, which featured its own political relationships and personalities, as well as its own bureaucracy.

Methodology and Method

The historian sets out to arrange "facts" — documentable events, names, dates, messages, and so forth — in a way that makes sense to him or her. Crudely speaking, constructing history requires two tasks: the making or gathering of facts — the researching and documenting of useful pieces of information — and the making sense of facts — strictly interpretation. Interpretation involves assigning signifiers (the facts) into meaningful categories (metaphors). If the reader — the judge — cannot dispute the fact, can

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2 Merriam-Webster's Collegiate Dictionary defines "agency" as such: "1: the capacity, condition, or state of acting or of exerting power: OPERATION." The Oxford English Dictionary uses similar language: "1. The faculty of an agent of acting; active working or operation; action or activity." (Italicization of "faculty" is mine.)
agree with the attribution of category to fact, and can agree that the category is worth mentioning, then the statement stands as history.

In constructing this history, I combine three methods for making or appropriating facts, each corresponding with its own type of evidence. First, to construct historical context, I use previously documented histories or other secondary texts (texts written by others about the events I, too, am chronicling). For instance, I employ histories and policy textbooks, such as David Clary's *Timber and the Forest Service*, Paul Hirt's *Conspiracy of Optimism*, Michael Kraft's *Environmental Policy and Politics*, Stephen Yaffee's *Wisdom of the Spotted Owl*, and Samual Dana and Sally Fairfax's standard *Forest and Range Policy*. I also use newspaper and magazine articles out of the widely-distributed publications — for instance the *New York Times*, the *Washington Post*, and *Time* and *Newsweek* magazines. Authorship and date of these texts vary.

Second, to establish previously undocumented fact — particularly concerning attitudes and political positions of the actors during those times — I also use some otherwise secondary texts. For instance, I use histories like Michael Frome's *The Forest Service* — to demonstrate the popular historical perspectives. I use newspaper and magazine articles to demonstrate attitudes of the press toward policy makers and policy developments. I am assuming that a study or history of the Forest Service, widely read and cited during in the 1980s, provides evidence regarding prevailing attitudes about policy. Texts that provides primary evidence in this context would serve as a secondary source in another case.
Third, to establish additional fact, I provide, as primary evidence not available in secondary sources, text from memos, letters, speeches, and interviews. I conducted interviews with seven people who were involved in the events leading up to the Forest Service adoption of Ecosystem Management. The interviewees are (alphabetized by last name):

-- Jerry Franklin was a forestry professor at the University of Washington and a Forest Service Researcher in the Pacific Northwest during this historical period. He was a key spokesman for the idea of “new forestry,” a component of ecosystem management, as well as serving on two scientific committees that produced the text that would constitute the new policy framework — the Scientific Panel on Late-Successional Forests of the Pacific Northwest (1990-91) and the Federal Ecosystem Management Assessment Team (1993). He also promoted and provided ideas for the Forest Service’s New Perspectives program -- a pilot project for ecosystem management.

-- John Gordon was Dean of Yale University’s forestry school and also served on the Scientific Panel.

-- George Leonard was Associate Chief of the Forest Service during the owl crisis and when Chief Robertson signed the memo. He retired in spring 1993.

-- John Mumma was Regional Forester for the Forest Service’s northern region, based in Missoula, Montana. He played a large part in conflict
between regional officers and the Forest Service directorate in the late 1980s and early 1990s.

— Dale Robertson, whose memo announced the "marriage" to ecosystem management, was Chief of the Forest Service from 1987 to 1993. Robertson was a careerist in the agency, working his way from assistant ranger from 1964 to 1966 to Chief in 1987. Between he held the positions of Ranger, Management Analyst (Washington Office), 1968-73, Supervisor (Siuslaw National Forest, 1974-76, and Mt. Hood National Forest, 1976-80), Associate Deputy Chief, Programs and Legislation, 1981-82, and Associate Chief, from 1982-87. In 1987, Robertson became Chief.

--- Hal Salwasser was a Forest Service Washington Office bureaucrat who was largely responsible for constructing and marketing the agency's New Perspectives Program and developing some of the language later used in ecosystem management. During much of his career with the Forest Service — from 1978 to the present — Salwasser's role involved translating natural resource-related science for planning, management, and marketing objectives. From November, 1978, until June, 1982, he served as "Regional Wildlife Ecologist" in the Pacific Southwest Region, where he was Coordinator of the California Interagency Wildlife Task Group, in addition to other responsibilities. In June, 1982, Salwasser became "National Wildlife Ecologist," and in November, 1985, he moved to "Deputy Director of Wildlife and Fisheries." In January, 1990, he became the first (and last) director of the

--- 3 Roberston, "Curriculum Vitae."  
5 Ibid.
New Perspectives Program, until the program was discontinued in September, 1992, after which he served as “Boone and Crockett Professor of Wildlife Conservation,” at the University of Montana until June, 1985. At this time, Salwasser accepted the position of “Regional Forester” for the Forest Service’s Northern Region, based in Missoula, Montana. In addition to his agency work, Salwasser served as “Senior Analyst for Natural Resources” on the President’s Commission on Americans Outdoors,” from January to October, 1996

— Jack Ward Thomas was on all the scientific teams that helped construct much of the language of ecosystem management: the Interagency Science Team (IST), 1989-90; the Scientific Panel, 1990-91; the Scientific Assessment Team (SAT), 1992-93, and the FEMAT, in 1903. Of these, he led the IST, SAT, and FEMAT. In 1993, President Bill Clinton made Thomas Chief of the Forest Service, where he served until 1996, when he became Boone and Crocket Professor for Wildlife Conservation at the University of Montana. Before he became well-known through his work on the various scientific teams, Thomas’ career charted a fairly conventional path up the Forest Service line of authority. After serving as a Research and Management Biologist for the Texas Parks and Wildlife Department, from 1957 to 1966, Thomas entered the Forest Service as a Research Wildlife Biologist. In 1969, he became a Principal Research Wildlife Biologist, and in 1969, the Chief Research Wildlife Biologist at the Pacific Northwest Research Station, in La Grande, Oregon. He occupied this post until becoming Chief in early 1993.

6 Ibid., 1-2.
7 Thomas, “Curriculum Vitae.”
8 Ibid.
In addition to using text from these sources, I borrowed text from interviews conducted and published by others -- found in otherwise secondary texts, for instance interviews of Forest Service officers found in books like Yaffee's *Wisdom of the Spotted Owl* or in articles of magazines such as the *Journal of Forestry*. I also used transcripts of testimony in congressional hearings, memoranda, and newspaper and magazine articles written by the historical characters. In this way, I have been able to document the history in relation to particular people or agencies.

The Dissertation Organization

I will begin in Chapter 1, "Conflict and Negotiation" by narrating the politically tumultuous formative years of the Forest Service. During these years, 1897 to 1960, Gifford Pinchot and other politicians maneuvered to gain agency and resources for the Service through an often hostile Congress and maintain it from aggression by the expansionist Department of the Interior and western business interests and politicians. The Forest Service attempted to bolster its image and gain popularity, culminating in its golden years between the early 1940s and the late 1960s. But, I ask, despite the Forest Service’s rising budgets and a high public profile, was the agency not as unified as some might argue?

In Chapter 2, "Smokey’s Identity Crisis," 1964-1992, I will discuss the major legislation and case law that diminished the Forest Service’s discretion in planning and managing the national forests. National politics -- particularly
an active Congress and courts — exerted immense pressure upon the Forest Service that culminated in an organizational identity crisis and the loss of its pre-war mythic status of a unified, credible, can-do agency. In March, 1989, federal judge William Dwyer enjoined the Forest Service from all timber activities within the territory of the northern spotted owl until it could assemble a “credible” scientific team to construct an “owl plan” for managing the national forests in the Pacific Northwest. In a series of decisions, the courts continued to enjoin the agency until spring 1993.

In Chapter 3, “Adding Insult to Injury: More Activism, Dissent, and Discord,” 1984-1992, I will trace the political activism directed against the agency by activists and dissenters within the agency as well as the protest directed at the agency by ancient-forest activists and journalists outside the Forest Service — from the mid-1980s to the early 1990s. This public and internal unraveling of the Forest Service’s image contributed to the organizational identity crisis that occurred in the early 1990s. The persistence and consequences of these demands seemed to signify that the Forest Service needed to do something (anything!) dramatic enough to resurrect its image — from the perspectives of its own workers as well as its external critics.

In Chapter 4, “Big Science,” I briefly discuss the political construction of these scientific discourses -- landscape ecology, conservation biology, and new forestry — outlining their concepts and rational structure and their bearings upon the history of the production (reconstruction or “reinvention,” in the agency’s words) of the agency’s new mission, Ecosystem Management.
In Chapter 5, "The Power of Science," 1989-1991, I discuss the formation and work of the Interagency Scientific Committee (ISC), 1989-90, and the "Scientific Panel to Study Late Successional and Old Growth Forests" (Scientific Panel). In 1989, Congress legislated into existence the ISC, adding legislative authority to Judge Dwyer's requirement that the Forest Service produce a "scientifically credible" plan. In April 1990, the team submitted a plan to Congress, but the administration of president George Bush forbade the Forest Service to adopt the plan. Political conflict continued, and public dissatisfaction remained high. In 1990, Congress convened the Scientific Panel to construct a group of alternatives for legislative zoning and management of the owl region. In 1991, the panel submitted its report to the House of Representatives. Congress failed to pass legislation resulting from the Scientific Panel's work, and the controversy and injunction continued. Nevertheless, the two reports remained important in the development of ecosystem management, because they provided the framework for planning that the Forest Service would adopt for its construction of ecosystem management.

In the same year, the Forest Service chartered the "New Perspectives" program. Much of the science that the ISC, the Scientific Panel, and the New Perspectives program appropriated came from the "disciplines" of Conservation Biology and Landscape Ecology and the closely related "New Forestry" (a synthesis of Conservation Biology and Landscape Ecology applied to forest ecosystems) that were themselves produced in a politically charged environment. Conservation biology's political agenda is written into its name, and many of its progenitors are explicit about their position in politics.
as advocates. Landscape Ecology is political as well, if not as explicitly, surely as thoroughly, its progenitors also emerging and writing in a political environment.

In Chapter 6, "Poly-Science," 1989-1992, I discuss the Forest Service's "New Perspectives" program, which the agency began building in 1989 to articulate a "new" set of management principles based upon new political demands, knowledge and science. During the period in which the ISC and the Scientific Panel were convening, a group of Forest Service officers and staff were busy constructing a policy framework using the language of these scientific and political discourses. The production of "New Perspectives" involved political maneuvering and negotiation as well as the production of texts that reflected this "science." In this manner, science and politics were woven into a construction with an appearance of solidity -- in the hope of achieving political stability.

In Chapter 7, "Forest World," I discuss the events leading up to Dale Robertson's authorship of the June 4 "marriage" memo, in context with the relationship between the administration of U.S. president George Bush and the Forest Service. The pressures bearing upon Bush, particularly in relation to his re-election campaign, as well as his involvement at the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil, had a major influence on the timing and shape of the Ecosystem Management policy.
Last, in the conclusion, "Plugging Up the Hole: Filling the Signifier of Ecosystem Management," 1992-93, I refocus attention upon the political function of Ecosystem Management, to ask, "what was (or is) Ecosystem Management?" In the context of events in the year after the June 4 memo, I offer an answer: It is a mediating structure -- a production -- meant to reconcile the Forest Service ideas with the manifold desires of the political public. Ecosystem management defines what resources are recognized to exist and in what quantities, it outlines the trade-offs between uses (or resources), and manages the processes for making the decisions. Ecosystem Management as produced by the Forest Service does not, in and of itself, make political decisions, but rather, it draws and maps the rules and boundaries of the larger political struggle over resources on the National Forests. Actual decisions are made at various levels (internal and external to the agency), and while drawing and mapping are themselves political processes, the most general and far reaching questions and decisions are negotiated in a political struggle involving congressional and executive as well as judicial players.
Chapter 2

Conflict and Negotiation: The Agency’s Formative Years

Nowadays you can scarcely be a lookout without a uniform and a college degree, but in 1919 not a man in our outfit, least of all the ranger himself, had been to college. They still picked rangers for the Forest Service by picking the toughest guy in town. Ours, Bill Bell, was the toughest in the Bitterroot Valley, and we thought he was the best ranger in the Forest Service.

As a uniform, our ranger always wore his .45 and most of our regular crew also packed revolvers, including me. The two old men in the outfit told the rest of us that “USFS” stood for “User’er Slow and Fuck’er Fast.” Being young and literal, I put up an argument at first pointing out that the beginning letters in the motto didn’t exactly fit USFS -- that their last word “Fast” didn’t begin with S as “Service” did. As far as they were concerned, their motto fitted the United States Forest Service exactly, and by the end of the summer I came to share their opinion.

— Norman MacLean

“USFS 1919: The Ranger, the Cook, and a Hole in the Sky,” in A River Runs Through It and Other Stories

In the 1940s, Gifford Pinchot nostalgically wrote that the Forest Service, which he had been so instrumental in forming, “had a clear understanding of where it was going, it was determined to get there, and it was never afraid to fight for what was right. Every man and woman in the Service believed in it and its work, and took great pride in belonging to it.”9 The agency, created by the U.S. Congress to be administered by the executive branch of the government -- but built by Pinchot -- was clear about its mission, it was

militant about its mission (to cut trees and regulate harvest and assure a steady supply of water) and, apparently, dissent was at a minimum.

But, can we accept Pinchot's claim without skepticism? After all, he wrote of a life of politicking -- negotiating the creation of the Forest Reserves and the Forest Service, serving as Governor of Pennsylvania, running for a seat in the Senate, and lobbying and advocating for several controversial political agendas. During much of his life as a politician, Pinchot -- as Chief and ex-Chief -- defended the Forest Service from political foes, saving the agency from funding crises, land transfers, and control (agency) transfers. He had a stake in promoting virtues for his agency, believing that his political activities were crucial for American forestry.10

But, these years were rife with conflict and uncertainty, as Pinchot himself described in his autobiography.11 Such a political environment could not have offered a great deal of certainty for anyone invested in the Forest Service during those years. Perhaps, the Forest Service, from the beginning, was not as clear about its own agency (discretion) much less its direction as Pinchot claimed. Certainly it developed in a hostile political environment.

In this chapter, I will outline Forest Service history up to the 1960s from the perspective of its struggle to survive in a hostile politics, dividing it into two eras following the reasoning of historian Paul Hirt. In A Conspiracy of Optimism, Hirt divides the history of the Forest Service into two eras. In the "Custodial Era," from the agency's creation in 1905 to World War II, the

10 Pinchot, Breaking New Ground.
11 Ibid., 391-476.
agency was mainly concerned with overseeing use of the national forests, and it contributed less than five percent of the nation's wood supply. Following the war, during the first two decades of the "Intensive Management" years (1945 to the early 1990s), the Forest Service doubled, tripled, and ultimately quadrupled timber harvest from the national forests and in the process became tightly coupled with the timber industry.\(^\text{12}\) This chapter traces both the custodial years, marked by political conflict and institutional insecurity, and the early Intensive Management years, when the Forest Service enjoyed relative prosperity and discretion.

**Insecurity in the Formative Years -- 1905 to World War II**

The Forest Service's first decade depended almost entirely upon the maneuverings of one charismatic politician, Pinchot, who was soon banished from federal service under the Taft administration after a political dispute. The Forest Service, with or without Pinchot, has always had to defend itself in a hostile political environment, especially against powerful sectors in Congress. Since its inception, Congress has pushed around the Forest Service -- not in the sense that Congress has often been unified, but in the sense that the agency has usually faced hostility from at least some quarters of Congress and has had to be responsive to that hostility. It has often found itself in a tenuous position; its gains have usually been qualified and at risk from hostile quarters within Congress and an expanding and competitive Department of the Interior.\(^\text{13}\)

\(^{12}\) Hirt, *Conspiracy of Optimism*, xxi, 44.

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Even its own original organic act -- "The Organic Act of 1897" -- was not really its own. Congress wrote the Act to grant custodial powers over the forest reserves to the Department of Interior (giving as much extra power to the President as it did the Secretary of the Interior). Not until seven years later, with the urging of President Theodore Roosevelt and this confidant, Pinchot, did Congress transfer these powers to the Department of Agriculture and the newly formed Forest Service.14

On the other hand, as an agency, the Forest Service has had agency -- the authority and resources to pursue objectives.15 It is an administrative bureaucracy with a certain amount of discretion -- based upon the "organic" mandate, as well as a hodge-podge of legislation and case law16 -- though it has been constantly subject to overview, revision and threat of revision by a hostile Congress. In the Creative Act of 1891, Congress gave discretion to the President to designate forest reserves. It later gave agency to the Secretary of Interior to administer and sell timber off them (Organic Act of 1897) and finally transferred this agency to the Forest Service in the Transfer Act 1905.17 As usual, contention and debate characterized the political negotiations that yielded these laws.

14 Transfer Act of 1905.
15 See footnote 2 for a dictionary definition of "agency."
16 I describe the development of this legal structure in the paragraphs below.
17 The "Creative Act" was actually a subsection of General Revision Act of 1891. Listed as Creative Act in the References Cited. The "Organic Act" was a rider to the 1897 General Appropriations Act of June 4, 1897; listed as Organic Act. See Dana and Fairfax, Forest and Range Policy, 81, and Wilkinson and Anderson, Land and Resource Planning, 18.
The lands, to which the Organic Act made reference in 1897, included 47 million acres already designated under the presidential authority written into the "Creative Act" — a designation that caused considerable congressional reaction. The 1891 act, which Gifford Pinchot later dubbed "the most important legislation in the history of forestry in America," passed through a lackadaisical and inattentive Congress as a last minute rider to "A Bill to Repeal the Timber Culture Laws," which was widely supported. At the urging of Secretary of Interior, John Noble, Congress hastily attached the rider in Conference Committee, violating its own rules of procedure and writing law in language that was vague and sloppy (including an incomplete sentence). Nevertheless, the bill stood. Within a month, President Harrison created the Yellowstone Park Forest Reservation, and over the next two years, he added a total of 13 million acres. By 1894, Harrison's successor, Grover Cleveland had added another 4.5 million acres. Shortly before his departure in February, 1897, Cleveland hastily added 21.3 million acres to the reservation system, but "with no mention of how they were to be administered, managed, or used."20

Cleveland's actions inspired various congressional proposals to alter or eliminate the powers in the Creative Act. Congress attached a rider to its appropriations bill allowing any President to "modify or abolish" forest reserves, which the lame duck Cleveland killed with a pocket veto in early 1897, deferring the problem to his successor. (Cleveland was concerned that

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18 Williams, Americans, 409-411.
19 Dana and Fairfax, Forest and Range Policy, 55-58; Williams, Americans, 409-411.
20 Williams, Americans, 414.
McKinley would use the act to dismantle the newly formed reserves.21) McKinley, taking office in February, convened a special session of Congress to pass an appropriations bill (so the federal government could operate), and again Congress debated the future of the reserves, settling upon the purposes of the reserves as the central issue. In this context, on June 4, 1897, Congress passed the law that was to later become the Forest Service’s “organic law.” The language of the Organic Act of 1897 states that the purposes of the reserves are to assure outputs such as water and timber in the long term, giving the President authority to establish forest reserves only to “improve and protect the forest within the reservation, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber”22

Much of the Organic Act of 1897 specifies the Secretary of Interior’s authorization to dispense timber outputs in a lawful manner, including timber sales, with an eye towards sustainability of the timber resource: “For the purpose of preserving the living and growing timber and promoting the younger growth on forest reservations, the Secretary of the Interior, under such rules and regulations as he shall prescribe, may cause to be designated and appraised so much of the dead, matured, or large growth of trees found upon such forest reservations as may be compatible with the utilization of the forests thereon.”23 The law further instructed the Secretary regarding the designation, appraisal, and marketing of timber sales as well as dispensation of revenues from such sales. Thus, he was to appoint some person to the purpose of marking or designating timber “before being sold,” as well as

21 Dana and Fairfax, Forest and Range Policy, 61.
22 Creative Act of 1891.
23 Ibid.
supervising its cutting and removal. The particular language—"such timber, before being sold, shall be marked and designated"—was to be central to the Monongahela case, seventy-five years later. Further, the Secretary had administrative obligations to provide "protection against destruction by fire and depredations," the exact meaning of "depredations" not being spelled out in the Act.24

In 1905, urged by Pinchot and President Roosevelt, Congress transferred authority concerning the reserves to a newly created Forest Service in the Department of Agriculture. The Transfer Act of 1905 authorized the agency to deposit funds from timber sales and grazing permits into an account from which it could draw for Forest Service administrative reasons. (This financial discretion was consistent with the idea of self-supporting agencies, popular in a budget conservative Congress.) Probably as important to future national forest policy as the Act itself was the letter Secretary of Agriculture, James Wilson, addressed to Pinchot giving him instruction regarding dispensation of the reserves. In this letter, which Pinchot is said to have crafted himself, Wilson enunciates the utilitarian vision of the forest service as well as its commitment to serve industries depending upon forest resources.25 This was an assertion of agency discretion that was destined to become a policy statement, and it also reflected the pressures of the western congressmen in whose states the reserves were located. By early 1906, reserves covered an area of 85.5 million acres, but again, opposition was mounting.

24 Ibid.
25 This letter—particularly text like the phrase "the greatest good for the greatest number in the long run"—has found coinage in forest policy discourse since Pinchot ghost-wrote it for Secretary of Agriculture, James Wilson. Wilson, "Wilson to Pinchot."
These transfers of agency were largely the product of the assertive Gifford Pinchot's political maneuvering, and the survival of the fledgling bureaucracy depended especially upon this one individual assisted by his friend, President Theodore Roosevelt. By 1906, Pinchot was already working the margins of credibility, making exaggerated claims to Congress regarding the agency's ability to pay for itself and buying off western opposition with the promise of local dividends and community stability in order to get funding.\(^{26}\) Almost immediately, Congress was to reduce and constrain these fiscal powers, depriving the agency of much of its independence to make and spend money.\(^{27}\)

In March, 1907, through the Agricultural Appropriations Act, Congress reduced the agency's fiscal discretion by assigning ten percent of receipts to local and state governments for schools and roads.\(^{28}\) While this affirmed Pinchot's argument to westerners that national forestry was good for community stability, it was a step away from fiscal impunity.\(^{29}\) In the same act, Congress abolished the forestry fund and explicitly required the agency to report receipts and expenditures (tightly curtailing spending discretion).\(^{30}\) Also in the same act, Congress revoked presidential authority to establish new reserves, restraining the president from transferring authority of public domain lands from the Department of Interior to the Department of Agriculture.\(^{31}\) The national forest system would grow more slowly and by

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\(^{27}\) See Wolf, “National Forest Timber Sales.”
\(^{28}\) *Appropriations Act of 1907.*
\(^{30}\) *Appropriations Act of 1907.*
\(^{31}\) Ibid.
different means. Also in the appropriations act, Congress renamed the Forest Reserves the National Forests.\textsuperscript{32} In 1908 Congress raised to twenty-five percent the share of receipts from timber stumpage that the Forest Service had to pay to local governments for schools and roads.\textsuperscript{33} Payments to counties were destined to play a major role in the development of future agency policy.\textsuperscript{34} In the Appropriations Act of 1913, Congress again used an appropriations act to make forest policy by requiring the Forest Service to use ten percent of receipts for road-building, effectively tying the agency's funding to the timber program.\textsuperscript{35}

Shortly before he signed the 1907 Appropriations Act, President Roosevelt, with advice and assistance from Pinchot, hastily added nearly 65 million acres to the system, again provoking the westerners, especially ranchers, who wanted unrestricted access to the forest lands.\textsuperscript{36} In 1911, after much debate that was characterized by the use of advocacy science concerning the relationship between forests and watersheds, Congress passed the Weeks Act, which authorized and funded the Forest Service to acquire eastern lands.\textsuperscript{37} This act, in a sense, marked the close of the Forest Service's formative years; the lines had been drawn and redrawn in an environment of political struggle and hostility that would continue "to haunt the Forest Service for decades."\textsuperscript{38}

\textsuperscript{32} Ibid.
\textsuperscript{33} Appropriations Act of 1908.
\textsuperscript{34} Dana and Fairfax, Forest and Range Policy, 25-26; Hirt, Conspiracy of Optimism, xxxiv-xxxv.
\textsuperscript{35} Appropriations Act of 1913.
\textsuperscript{36} Dana and Fairfax, Forest and Range Policy, 25-26
\textsuperscript{37} The Weeks Act of 1911.
\textsuperscript{38} Dana and Fairfax, Forest and Range Policy, 90-92.
Also in 1911, the Supreme Court "firmly established the Forest Service's broad regulatory authority" in a "landmark" ruling in the case of United States v. Grimaud, particularly the authority to charge fees and require permits for National Forest use.39 According to Charles Wilkinson, "lower court decisions since Grimaud have consistently upheld assertions of Forest Service regulatory power. The agency has withstood challenges to its permitting procedures, a basic element of the agency's authority by which it regulates various uses of the national forests," all under the "auspices of the Organic Act."

The Service's administrative powers benefited in other ways, too. In the years between 1911 and World War II, Congress passed laws that further tied the Forest Service to local and industrial concerns — a direction previously established by Pinchot's rhetoric and the machinations of the congressional appropriations process. The Clarke-McNary Act of 1924 created the authority for fire control and cooperation with state governments in fire control, reforestation, and conservation programs, as well as expanding the eastern forests acquisition programs, while the McSweeney-McNary Act of 1928 established the Forest Service research program.40 The Knutson-Vanderberg Act (1930) further tied the agency to its timber program by authorizing the Secretary of Agriculture to require timber buyers to pay for reforestation and silvicultural activities.41

41 Knutson-Vanderberg Act of 1930.
Yet, these years were not calm: congressional hostility remained, and the agency faced aggression from other quarters, particularly an expanding Department of the Interior (DOI). In 1908, following conflict between Gifford Pinchot and the newly assigned DOI Secretary, Richard Ballinger, Pinchot was fired, marking the beginning of three decades of tension between the Forest Service and the DOI. In the mid-1920s, Harold Ickes, Secretary of the DOI under Franklin Roosevelt, opposed Forest Service attempts to obtain congressional appropriations for recreation and suggested that the DOI take control of the Forest Service. In the early 1930s, Ickes resurrected this idea of subsuming the Forest Service and Interior bureaucracies into a Department of Conservation. The proposal was not adopted, but continued to reside in the discourse as an uncomfortable issue for the Forest Service. In 1933, Congress placed under DOI jurisdiction sixteen monuments within national forest boundaries. Conflict between the DOI and Forest Service persisted throughout the 1930s as Ickes, working with Congress, attempted to acquire more national forest lands for the National Park Service or extend Park Service control of recreation planning over them.42

Forest Service struggle with the Park Service significantly influenced its recreation policy. From its early years, the Forest Service attempted to establish itself as a provider of recreation in order to establish its legitimacy as manager of all above ground resources on the national forests. While the automobile and related recreation remained central to Forest Service recreation policy in the 1920s and 1930s, the agency also committed resources to wilderness policy, particularly to the "U-Regulations" of 1939. The U-

42 Dana and Fairfax, Forest and Range Policy, 151-152, 193-194.
Regulations were a three-tier roadless area classification that were the subject of internal Forest Service conflict, as was its predecessor policy, the “L-Regulations” of 1929. Advocates argued that a vigorous wilderness program would build public support and institutional protection against an aggressive Department of the Interior, while opponents argued that focusing upon wilderness and recreation as a forest use affirmed the DOI position that recreation was a legitimate primary use of public lands. This rift represented the beginning of internal conflict that was to arise, mutate, and grow to much more serious proportions by the 1970s and into the 1980s.43

The FS suffered hostility from the timber industry also, insofar as it pressed for government regulation over industry logging on private lands. From as early as 1919, Pinchot had enlisted members of the Forest Service directorate in calling for federal regulations over land use on privately owned lands, particularly those belonging to the large corporations.44 Agency personnel, however, were not united in support of such regulation, and in the 1920s, the Forest Service did not adopt an official position in support of such regulation, advocating state rather than federal control.

Nevertheless, Pinchot and his supporters pressed for legislation, and though no laws were passed, they did bring influence to a congressional study of timber harvesting culminating in the *Timber depletion, lumber exports, and concentration of timber ownership* report in 1920.45 Later, the “Depression Chiefs of the Forest Service ... were increasingly vociferous and

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43 Ibid., 155.
44 Ibid., 125.
adamant in their espousal of federal forest regulation." In 1933, the agency produced the "Copeland Report," predicting timber famine and advocating increased federal land acquisitions and control over industry timber production. Some of these ideas briefly came to realization in the "Lumber Code" provisions of the National Industrial Relations Act, though, within a year, the Supreme Court "unanimously invalidated the whole NIRA program." Roosevelt, with encouragement of Chief Earl Clappe, assembled a "Joint Congressional Committee on Forestry," which, in 1938, issued a report calling for state control rather than federal planning — a disappointment to advocates of Forest Service control over private timber regulation. Next, the agency enlisted forest rangers in a failed attempt to persuade the public and the industry to adopt regulations on industrial lands. By 1940, the agency found its morale at an all time low, with FS Chief Earl Clappe reporting that "[o]ne group of problems included the existing morale in the Forest Service, and baffled feeling of many men because they do not know what Forest Service objectives are, the feeling of uneasiness or even hopelessness because of inadequate legislation and funds for badly needed work, the belief that the Service is continually on the defensive, the damper on enthusiasm and creative effort caused by the threat of reorganization."

On the other hand, in the 1930s, the agency had gained the support of recreation users and New Deal work project advocates with Forest Service projects. For example, the Forest Service was able to muster the labor of the

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47 Ibid., 170.
48 Ibid., 170-171.
Civilian Conservation Corps for tree planting and fire suppression and
development of trails and recreational facilities. The New Deal work was a
source of legitimacy and political momentum for the Forest Service, though of
limited potency.

Its next challenge, however—a drastically scaled-up production for World
War II—propelled it to the front lines of industrial production. According to
Hirt, “timber sales on the national forest rose from 1.3 bbf to 3.1 bbf between
1939 and 1945, an increase of 238 percent. More significantly, the proportion of
national forest contributions to the total national timber production economy
in that same period doubled from 5 percent to 10 percent.” World War II,
with its increased demands, sharply contrasted with the preceding fifteen years
and provided the impetus for the Forest Service to undergo its
metamorphosis into a large-scale timber provider. Hirt claimed,

World War Two thus represents a major transition period in the
history of the Forest Service. The move to intensive
management and rapidly expanded production that began with
the war and peaked in the 1960s is crucial to understanding the
foundation of current national forest management
controversies.

Clary also stated that the agency was, “at the close of the war, thoroughly
oriented toward production forestry in a way that it had never been
previously.”

**Intensive Management (the construction of Smoky Bear)**

51 Hirt, *Conspiracy*, 45.
52 Ibid., xxi.
53 Dana and Fairfax, *Forest and Range Policy*, 175.

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Intensive Management (the construction of Smoky Bear)

During the late 1940s and the 1950s, government and industry undertook major investments in transportation, education, mass communications, manufacturing and agriculture. These investments had numerous impacts, including demographic changes, introduction of new manufacturing and agricultural technologies, and the widespread, everyday use of mass communication technologies -- the telephone, television, and radio. According to Hirt, "pent-up demand for housing exploded after 1945, exacerbated by a postwar 'baby boom.'" During this time, the Forest Service grew tremendously in terms of its labor force, its budget, its productivity, and its effects upon the landscape, as it became linked to the timber industry and its political constituency. Meanwhile, public contact increased as numbers of visitors to the national forests increased, and people increasingly voiced political demands for non-timber uses. Eventually, the demands became more acute, culminating in congressional acts constituting the bulk of environmental legislation relevant to the politics concerning national forests in the 1980s and 90s.

Accompanying these production increases, an important development in the early intensive management days was the coupling of the Forest Service with the timber industry. For instance, in 1951, the National Lumber Manufacturing Association (NLMA), "who had opposed the sale of national forest timber up until the early 1940s (trying to keep competition down and prices up), now spoke critically about the national forests not contributing

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54 Hirt, Conspiracy, 50.
their 'fair share' to the lumber supply burden, disingenuously blaming the Forest Service for the overcutting that had earlier occurred on private lands."55 The industry began a full-time lobbying effort, which used the Korean War to link national security to its timber supply from national forests, conjuring up images of a national emergency and timber famine crisis to promote "immediate development of plans for the maximum utilization of publicly owned stumpage. These plans should include consideration of overmature stands now degenerating in areas now locked up for lack of ready access in Alaska."56

Congress, particularly through the appropriation committees, responded by raising timber budgets, particularly for "the agency’s proposed accelerated road construction program," while neglecting reforestation, wildlife, and recreation budgets.57 In FY 1950, Congress made available to the Forest Service $13.3 million for forest roads; in FY 1951, $16.9 million; in FY 1952, $18.9 million; and for FY 1953 the figure jumped to $24.3 million.58 In comparison, the entire budget for national forest protection and management of all resources — in FY 1953 amounted to $39.8 million (not including roads). These road funds and additional timber purchaser credits built nearly 6,000 new miles of roads between FY 1951 and FY 1953.59 In 1959, the Forest Service requested $24 million for road construction, which Congress increased to $28 million, "a 17 percent increase over the agency’s request, equivalent to a fifth of the total budget allocation approved by Congress. In contrast, in the final appropriation

55 Ibid., 90. Hirt acknowledges Robbins, Lumberjacks and Legislators.
56 Hirt, Conspiracy, 90.
57 Ibid.
58 Ibid., 93.
59 Ibid.
the Forest Service got substantially less than it requested for reforestation, soil and water management, wildlife, and recreation."\(^{60}\)

Thus encouraged by Congress, the agency adopted an "intensive management" operating philosophy. To implement the program, the Forest Service began using large clearcuts coupled with intensive tree growing practices -- terracing, tree planting, chemical weeding and protection against insects and disease, fire suppression, among others and dramatically increased its cut. According to Hirt:

The key development in national forest management in the 1950s was the full maturing of intensive timber extraction and the contingent evolution of technical and ideological rationales for raising allowable cut levels, including the widespread adoption of clearcutting as an alternative to selective cutting. During the 1950s, timber production from the national forests shot up from 3.5 billion board feet to 9.3 billion board feet. At the same time, the percentage of national forest contributions to total U.S. timber harvests climbed from 10 percent to 15 percent. In the Pacific Northwest, national forest contributions to regional timber production in this decade jumped from 21 percent to 35 percent.\(^{61}\)

The Forest Service's "rationales" for raising the allowable cut inevitably reflected the demands of the timber industry, which reinterpreted the maximum allowable cut to be the amount of timber to which the industry should have access.\(^{62}\) What's more, rationales were ambiguous enough to allow for flexibility and interpretation, marking their construction as projects of political negotiation. The construction of politically acceptable allowable cut

\(^{60}\) Ibid., 210. (Emphasis in original.)

\(^{61}\) Ibid., 131. "The volume of timber cut of the national forests as a whole rose from 3.7 billion board feet in FY 1949 to 4.6 bbf in 1951, and to 5.1 bbf in 1953." Ibid., 90.

\(^{62}\) Ibid., 132.
limits — that is, acceptable to industry — required the forestry community to construct "theories of technological control," to justify "promises that politicians and constituents then expected them to deliver." In addition, the agency's "definition of multiple use and sustained yield, which had previously been consistent with the industry view, grew more ambiguous in the late 1950s; that way agency leaders could retain the maximum amount of flexibility in applying them." In turn, the Forest Service enjoyed ever expanding budgets, which it then spent upon more "intensive management," using the increased production of commodities to justify future budgets:

Since the agency's budget and employee base had significantly expanded in response to promises to produce more goods and services, admitting an inability to achieve production targets would weaken Forest Service clout in budget negotiations and threaten job security for hundreds, maybe thousands, of employees. And since intensive management was a means for increasing forest productivity to meet escalating demands, abandoning the faith would have meant establishing limits to production, saying no instead of yes to constituents and congressmen, and rationing rather than simply stepping up outputs.

In the same twenty years, 1945-1965, the Forest Service gained a new degree of authority in its successful promotion of recreation as a use that was worth managing, insofar as it increased the agency's management options. In United States v. Perko, a Federal Court affirmed the agency's authority to manage a particular roadless area for recreation. In 1960, a friendly Congress broadened this power to all national forests with the Forest Service authored

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63 Ibid., xxxiii. For a brief history of this shift in the meaning of sustained yield, see Parry, et al., "Changing Conceptions of Sustained Yield."
64 Ibid., 171.
65 Ibid., xxxiii
Multiple Use-Sustained Yield Act of 1960 (MUSY) – a law that in its ambiguity promises “more of everything for everyone.”67 Hirt, who studied the Forest Service’s intensive management program, argued that, by “promoting multiple use, politicians could befriend all the pressing constituencies, and with intensive management there was to be more of everything for everyone.”68 The law specified a range of uses — recreation, range, timber, watershed, wildlife, and fish — that the national forests are to make available “in the combination that will best meet the needs of the American people.”69 In Wilkinson’s words, the Act “has fortified the agency’s defense against legal challenges to its regulatory authority.70 The Act also directs the Forest Service to maintain enough flexibility in its management to allow for changes in demands for outputs. According to Hirt, MUSY can be considered the last major victory for the Forest Service in its struggle to retain full discretionary control over national forest management (discretion within budget constraints, of course). After 1960, legislation became increasingly prescriptive. The act further symbolized the continued hegemony of the expanding pie ideology among politicians and agency leaders.71

The Forest Service maintained its intensive management posture into the 1960s, increasing its logging levels to pay for other programs, such as recreation and wildlife. Finally, the agency enjoyed political prestige and a modicum of security — only 20 years after Chief Earl Clappe lamented the poor morale of the agency. It was selling more stumpage than ever before, and a

68 Hirt, Conspiracy, 84.
69 Multiple Use, Sustained Yield Act of 1960.
71 Hirt, Conspiracy, 190.
friendly Congress, influenced by the timber industry, was increasing the timber program budget. The Forest Service was also promoting itself to the public, spending millions on public spectacles intended to influence the populace. For instance, the agency worked with the Ad Council, the American Broadcasting Agency and other television networks, the organizers of Macy’s parade, the Boy Scouts, magazines such as Playboy Magazine, the Disney Corporation, and thousands of schools, civic organizations, and businesses to promote its fire suppression program and bought advertisements in. The agency also propagandized communities about the link between national forestry and community economic health (as well as national prosperity), and promoted itself as the nation’s premier recreation provider. During this period, sociologist, Herbert Kaufman authored a book destined for wide readership, The Forest Ranger, describing a confident, integrated agency that, after thirty-five years, had established a solid institutional footing, a strong identity, and a favorable popular image.

The Forest Service and Identity Management

Almost any study on the Forest Service cites Herbert Kaufman’s book, The Forest Ranger, wherein he explores the assertion that, although the agency’s decentralized administrative structure would encourage fragmentation and inconsistency, “this fragmentation does not occur” — “rarely does one hear it said that Rangers behave in a fashion inconsistent with Service policy.” An important question is, Why do they “not succumb to the centrifugal forces inherent in the administrative situation”?73

72 USDA 1973, 6-10.
73 Kaufmann, Forest Ranger, 4-5.
Kaufman addressed this question and described his research methodology thus:

Five Ranger districts in different parts of the country were selected for intensive analysis. They were not chosen as being "typical," although districts with conspicuously unusual characteristics were avoided; rather they were picked as samples because together they show almost the whole range of Forest Service activities and a wide variety of the conditions under which its work is carried on. Ideally, the number of "specimens" would have been larger — at least one district of a national forest in each of the ten regions ... but there was neither sufficient money nor manpower for more inclusive coverage.74

Kaufman concluded that the Forest Service uses several "techniques of integration," using such techniques as "authorization, direction, and prohibition," "official diaries," "sanctions," "selecting men who fit," and "building identification with the Forest Service," to name only a few "procedural devices for preforming decisions," "detecting and discouraging deviation," and "developing the will and capacity."75

Most policy books concerning Forest Service in the recent decades reference Kaufman's work, and many expound upon it. Michael Frome wrote of the "[c]ohesiveness and loyalty" that had prevailed within the Forest Service, claiming that "esprit and devotion to the agency rose as a binding force between individuals and institution."76 Clary noted that "criticism from within was unlikely, because the shared culture of the agency was pervasive."77 Depending upon Kaufman's account, Paul Hirt describes a time

74 Ibid., 18.
75 Ibid., 92-124.
76 Frome, Forest Service, 36.
77 Clary, Timber, 196.
when "the Forest Service enjoyed a high degree of public accolade and organizational cohesion. Then, scholars cited the agency as a model of public-spirited bureaucratic efficiency." Policy professor Steven Yaffee took the study at face value when he concluded that Kaufman’s “classic study”:

[I]dentified information, budget and personnel systems that tended to enhance the compliance of the Forest Service workforce with the overall direction of the organization. By the 1960s, the Forest Service was a fairly militaristic, “Can Do” agency that promoted and rewarded individuals that mirrored the values and objectives of the agency’s leadership, and tended to select against individuals who disagreed. While the Forest Service’s district rangers and forest supervisors had remarkable amounts of discretion at the forest level, they exercised it primarily within the overall themes defined by the organization.

The idea that the Forest Service maintained a strong identity has carried over to claims regarding the agency’s public image – its public identity. As late as 1984, Frome could still claim that the Forest Service “is a well respected institution,” citing a 1981 study ranking the agency “among the ten most successful organizations in the country,” partially because it “produced a well-respected product, whatever the nature of the product,” as well as appearing “a good place to work,” and staying “sound and healthy” over a “sustained period of time.” Frome described President Eisenhower’s 1954 visit to Missoula, Montana, to dedicate a smoke jumper facility. There the president claimed: “I am not surprised that it is such a good outfit,” extolling the good relations between agency workers and management. Others agree with Eisenhower’s assessment. For instance, Yaffee writes of high times for the Forest Service during this era:

78 Hirt, Conspiracy, xvi.
79 Frome, Forest Service, 33.
80 Eisenhower in Frome, Forest Service, 33.
By the 1960s, the combination of organizational styles and behaviors described above had succeeded remarkably well for the FS. It had an expanding budget, a set of supporters in the federal budget process, and an esprit de corps that was the envy of Washington. Overall, the 1940s, 1950s, and 1960s were a great time to be in the Forest Service. The agency’s mission was growing, clear, and valued by society, and its methods of land management and organizational control were well tested. While the agency had been challenged occasionally over site-specific controversies, by and large it had won those challenges and was in control of its destiny.81

But, is it legitimate to assert with confidence that the Forest Service was strongly integrated based upon one study involving five subjects? Probably not; though Kaufman’s argument may (or may not) have described the situation as it really was, evidence lacks for such a positive statement. Yaffee, in an interview, later said that:

In some respects, Kaufman’s basic image is consistent with other things about the agency in the times. But the fact that he only looked at five districts — it was a small number. I think we pattern these things pretty much to fit our prior notion unless we’re very careful. I think his image held together really nicely — all this emphasis on control. I suspect that three quarters of it or two thirds of it was right on the mark. But I think what we probably lost was a sense of the diversity that was present at the time in the organization. I doubt that was ever that tightly as controlled as he would suggest.82

Whether or not Kaufman’s study was statistically acceptable, it reflects an image that was believed at that time, in which the Forest Service was a flagship agency that could do the job.

81 Yaffee, Wisdom, 8.
82 Ibid., 15.
Concluding Remarks

Given the tumultuous years preceding the time period of Kaufman's writings, and given that the 1950s and early 60s marked periods of significant social change for the U.S. society, a claim to such integrity and identity is suspicious. The historian would want more evidence -- should want more evidence. Perhaps, despite Pinchot's rhetoric, the agency spent its infancy with a challenged identity, which remained challenged. Being responsive to the politics of the day, the agency could never have been expected to have a "clear understanding" of where it was going, unless its mission was in fact "to be responsive to the politics of the day."

Nevertheless, by the time of the Multiple-Use/Sustained Yield Act of 1960, the Forest Service seemed to be politically positioned well, with expanding budgets and the prestige signified by Smoky Bear. The agency had linked itself to both the timber industry and recreationists -- almost the entire spectrum of political claims upon the national forests. For the time, though, the Forest Service had support in political quarters and a strong sense of direction and identity. But, this support and organizational confidence was soon to be tested by a changing and increasingly adverse political struggle over control of the public wildlands. Ultimately it would give way to turmoil, as the range of public demands expanded while the available resource rapidly diminished.
Chapter 3
Smokey's Identity Crisis

The "purpose of law," however, is absolutely the last thing to employ in the history of the origin of law: on the contrary, there is for historiography of any kind no more important proposition than the one it took such effort to establish but which really ought to be established now: the cause of the origin of a thing and its eventual utility, its actual employment and place in a system of purposes, lie worlds apart; whatever exists, having somehow come into being, is again and again reinterpreted to new ends, taken over, transformed, and redirected by some power superior to it; all events in the organic world are a subduing, a becoming master, and all subduing and becoming master involves a fresh interpretation, an adaptation through which any previous "meaning" and "purpose" are necessarily obscured or even obliterated.

— Friedrich Nietzsche
Genealogy of Morals

Whether or not the Forest Service's fifteen years of prosperity, 1945-1960, constituted the basis for a strong identity — the commonly accepted mythology — it surely was not able to protect one during the following three decades. From the early 1960s, the agency suffered a steady erosion of political acceptance (internal as well as external), culminating in fierce opposition and challenge to its policies. Congress repeatedly intervened in national forest policy, passing and threatening to pass legislation the Forest Service considered hostile and constraining to the agency. The Endangered Species Act, for instance, gave the U.S. Fish and Wildlife Service — a Department of the Interior agency — jurisdiction over management of endangered or threatened species on all national lands, including national forests. Administrative appeals and lawsuits delayed and impeded logging.

culminating in the Pacific Northwest logging moratoria on behalf of the northern spotted owl. Citizens groups opposed agency activities on site, step by step, all over the country. By the early 1990s, the bureaucracy was struggling with a crisis of agency -- losing control over management of the national forests, as well as an internal crisis of identity. Its entire modus operandi had become delegitimated, the agency had little if any sense of direction, and its fate was ambiguous. Its image of integrity and ability, long cultivated within ranks as well as sold to the public, had deteriorated, and, to the public as well as industry, the fundamentally political nature of Forest Service policy had become clear. In this chapter, I will outline this deterioration of Forest Service authority. I will begin with the years 1964 to 1976, when Congress passed major environmental legislation, discuss the political negotiation of roadless areas, old-growth, and wilderness, during 1975-1984, and finally, outline the political struggle that focused around the northern spotted owl.

When it all began to unravel: Law in the Post-War Reformatory Years, 1964-1976

An early sign of the coming unrest for the Forest Service was opposition to the multiple use plans in the Pacific Northwest by conservation groups, seeking permanent wildlands designation of some of the areas in some of the plans. Some of the groups, for instance, “the Sierra Club, the Federation of Western Outdoor Clubs (a newly formed coalition of organizations), and the Mazamas (a hiking club turned politically active)” had gained support in

84 Webster’s defines an “identity crisis” as “a state of confusion in an institution or organization regarding its nature or direction.” Webster’s New Collegiate Dictionary, 597.
85 Hirt, Conspiracy; Wilkinson, Crossing the Next Meridian.
86 Hirt, Conspiracy, 225.
Congress, as well as "the influential support of United States Supreme Court Justice William O. Douglas -- also from Washington." Responding to this formidable opposition, the Secretary of Agriculture, in 1961, requested that the Chief "put the plans on hold temporarily while it developed a new comprehensive policy statement for forest management in the region." The agency, in a report called "Long-range management policy and objectives for the high mountain areas of the region," vowed to be more careful in regards to esthetics, but continued to log the areas in question.

The first major legislative action hostile to the Forest Service was passage of the 1964 Wilderness Act, which Clary noted, "reflected an absence of faith in multiple use or in the intentions of the Forest Service, whose feelings accordingly were bruised." The act constituted a "zoning type law," which provided the machinery for stipulating specific land uses over large areas. A compromise patched from a stronger bill that the Forest Service opposed, the Act instituted some previously designated lands in the U-Regulation system as National Wilderness areas, limiting the agency's discretion regarding those lands as well as hinting at future removals (Congress retained the right to designate Wilderness). According to Frank Gregg, a "public administration scholar" and BLM director under President Carter, "the era of Forest Service discretion over major land use allocations ended with the Wilderness Act of 1964, which established the Congress as a direct decision maker on the uses to be permitted on millions of acres of national forests." In one sense,

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87 Ibid., 225.
88 Ibid., 226.
89 Clary, Timber, 172.
90 Gregg in Hirt, Conspiracy, 232.
however, the Act represented a small victory for the agency, because the extent of the designated lands was small and of marginal timber value.

In 1969, Congress passed the National Environmental Policy Act, which mandated the Forest Service (and other agencies whose actions affect the environment) to draft environmental impact statements of proposed actions, with alternatives considering a range of environmental consequences. The law also required federal agencies to open the planning process to public scrutiny and participation, particularly through a public hearings process. The Forest Service mistakenly considered this act to be insignificant in the sense that the agency believed itself already to be in compliance, making agency changes unnecessary. However, the act turned out to be very effective in altering Forest Service policy, particularly in terms of timber policy. As case law developed in relation to NEPA, it became apparent that the law required documentation of agency activities beyond what the Forest Service was able to produce. In addition, the law instituted demographic change within the agency. Its requirements for interdisciplinary, scientific planning, forced the Forest Service, whose workforce had been made up of foresters, to hire workers with diverse educations and backgrounds. These new specialists, particularly biologists, began to work themselves into positions of authority, eventually bringing internal opposition to the Forest Service timber program.

In 1973, Congress passed the Endangered Species Act, destined to rock the public lands politics of the 1980s (U.S. Congress 1973). If a species with habitat on national forests were to become listed as threatened or endangered — or, as

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91 Dana and Fairfax, Forest and Range Policy, 242.
92 Wilkinson, Crossing the Next Meridian, 145-146
it turns out, proposed to be listed — the agency would be forced to respond, particularly in the face of litigation. This act threatened and ultimately proved to constrain Forest Service discretion and made necessary further specialization of labor within the agency to address the effects of logging on plant and animal wildlife.

The absolute nature of the language in the ESA — its mandate that the U.S. Fish and Wildlife Service's (FWS) listing of any species could deter any program or project, government or private, that endangered the species or its habitat — drew intense resistance, for instance, from natural resource managers. According to Dana and Fairfax, "From the point of view of forest and range managers, the Endangered Species Act seemed to constitute an uncompromising piece of legislation which threatens management activities, invites court action, and fails to allow for a balancing of other considerations which warrant weighing against the necessity of protecting a species."93 Eventually, owing to the Tellico decision barring the further development of a Tennessee Valley Authority dam, industry and several agencies pressured Congress into passing legislation that qualified the ESA.94 The ESA update in 1978 created the possibility of convening a cabinet level committee (soon dubbed the "God Squad") to weigh the political and economic advantages of a project against the risks posed to the species in question.

Meanwhile, conflict between the Forest Service and the recreationists and environmentalists arose concerning the Forest Service's widespread use of clearcutting as a management tool. The Forest Service, it seems, had taken the

93 Dana and Fairfax, Forest and Range Policy, 261.
94 Tennessee Valley Authority v. Hill et. al.
Organic Act’s language pertaining to marking every tree to mean marking only those trees on boundaries of what would become large clearcuts. Clearcutting became the technology of the day, especially in large tracts, and its widespread effects became increasingly apparent. By the 1970s — only a decade after the Kaufman report — conflict had become apparent, within and without the agency. In 1970, Neil Rahm Regional Forester of the Northern Region wrote a memo to the Forest Service Chief, despairing the regional Forest Service workforce’s low morale:

Some of our own people are feeling and expressing doubts. The doubts are whether we can perform as well as we tell people we can. Do we have the expertise on the ground to perform an acceptable job? I think the answer is no.95

Chief Cliff responded in a memo of his own, alluding to the agency’s uncertainty regarding its mission in a time of changing politics:

Many employees have recently expressed concern on the direction in which the Forest Service seems to be heading. I share this concern. Our programs are out of balance to meet public needs for the environmental 1970s and we are receiving mounting criticism from all sides.96

In response, Congress, at the request of Senator Lee Metcalf (D — Montana), commissioned a panel of professors from the University of Montana to study the effects of FS management on national forests in Montana. Named for its leader, Forestry Dean Arnold Bolle, the Bolle report harshly criticized the agency for its clearcutting and for terracing to promote regeneration in the Bitterroot Valley (Bitterroot NF), writing, “Such cutting practices abuse the multiple use principle. And they make a mockery of the sustained yield

96 Frome, Forest Service, 5.
concept which decrees that all resources — but particularly the key ones, soil and water — must be sustained. Above that, many consider it foolish economics. The short-term gains are offset by longterm losses in both economics and environmental quality.”

Three years later, a group of turkey hunters, soon joined by the Izaak Walton League, filed suit against the FS over its clearcutting practices in the Monongahela National Forest in West Virginia. The lawsuit successfully argued that, in its indiscriminate cutting of trees of all ages, the Forest Service had exceeded its authority.” In summary, the “plaintiffs contended that in embarking upon a clearcut, the Service violated the letter and the clear intent of the Organic Act of 1897.” Further, they argued that the entire timber program relied upon this one law, writing, “the act was the only real charter the timber program had.” Arguing that a bureaucracy had no authority to alter the content of congressional law, the judge enjoined all clearcutting operations on the entire Monongahela National Forest, and the 1975 decision in the Fourth Circuit Appeals Court proscribed clearcutting across all national forests within its domain. “The court’s reasoning in the Monongahela case was promptly adopted in Zieske v. Butz,” and it was clear that similar findings would be forthcoming in other judicial districts. The Forest Service timber program was stymied.

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97 Bolle Report, in Frome, Forest Service, 5.
99 Clary, Timber, 191.
100 Ibid.
101 Ibid.
As a way out of this impasse, and after Nixon’s administration, the Senate, the Forest Service, and even Ralph Nader’s public interest group had all studied the situation and published reports, Congress passed the National Forest Management Act of 1976 (NFMA), amending the 1974 Renewable Resources Planning Act (RPA).\(^{103}\) The NFMA is an updated “Organic Act” in the sense that it establishes the Forest Service’s basic authority and mandate to manage the National Forest, although it is different than the original Organic Act in several respects, reflecting changes in public opinion since the turn of the century. In some ways the act affirms the Forest Service’s instituted operating procedures, insofar as it does establish the agency’s discretion to use clearcut logging, and it does structure resource planning in the context of multiple-use and sustained yield as mandated in the MUSY of 1960. Further, to translate NFMA into administrative rules, Congress provided for a “Committee of Scientists” to be appointed by the Secretary of Agriculture. Through consultation, the Forest Service would be able to exert influence upon the political production of the NFMA regulations.\(^{104}\)

On the other hand, NFMA and RPA were more prescriptive than earlier land management laws, defining management objectives (“considerations” in the NFMA language) in relatively specific language, including time-tables for regeneration and explicit limitations on clearcut logging.\(^{105}\) According to Charles Wilkinson and H. Michael Anderson, the NFMA “is the most adventurous congressional incursion into the on-the-ground activities of the

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\(^{103}\) National Forest Management Act of 1976; Renewable Resources Planning Act of 1974.

\(^{104}\) National Forest Management Act of 1976, sec. 6 (g),(h).

Forest Service.”106 The law references some of the specific political demands of the time, such as requiring consideration of “biological diversity,” aesthetic impacts, and so on, as well as mandating a planning process that includes provisions for “public participation.”107 In addition, the law — particularly the original RPA language — links congressional funding to the agency’s production of national assessments of forest resources as well as national program plans and budgets regarding their use. During the House floor debate on RPA, Congressman Don H. Clausen of California summarized, “the intent of the legislation is to establish more congressional control over the management activities and appropriation process of the national forest system lands,” which it did.108

The NFMA was the last piece of legislation forming the institutional milieu in which the Forest Service was operating when the politics of Ecosystem Management emerged in the late 1980s. Though the Forest Service’s direction and modus operandi were affirmed, as was its longstanding practice of using planning to assert agency, the agency was now saddled with forest level planning and reporting responsibilities that would increase its workload by a large magnitude and force further diversification of its ranks while also increasing Congressional oversight. The NFMA signified change for the agency in the sense that its practices would now be even more in the public eye, it would have to account for increased public pressure and diverse demands, and, as it turned out, intense criticism and conflict. Together with NEPA, the congressional action forced the agency (and other agencies) into

108 Hirt, Conspiracy, 245.
timely planning processes open to oversight and litigation, as well as making substantive forest management demands. The Forest Service was now to operate in an environment open to onlookers, criticism (or applause), and ultimately, litigation, while also diversifying its workforce in terms of specialization.

The environmental legislation of these years, particularly the Wilderness Act, the ESA, the NEPA, the RPA and ultimately the NFMA, "clinched a trend toward greater congressional intervention in federal land management and decreasing agency autonomy and discretion."109 What is more, the Forest Service, which once considered itself insulated from public conflict by virtue of its position as a technocracy,110 now found itself chronically embroiled in the political theater, attacked in the media, in Congress, in the courts, on the streets and in the forests.

Roadless Lands, Wilderness, and Old-growth (Oh My) 1975-1984

The conflict that has assailed the Forest Service from the mid-1970s to the present mostly concerned unroaded or otherwise primitive lands -- characterized by old-growth forest. These lands were rich in timber, yet also valued for recreation, ecological preservation, watershed roles, aesthetic and spiritual reasons, and as habitat for rare and endangered species -- all concerns that translated into a wide array of different political demands. Most of the remaining roadless areas were in the national forests of Pacific Northwest and Northern Region and corresponding BLM and NPS lands. Of these

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110 A consistent theme in Clary, *Timber*. 

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forestlands, the most profitable for timber were in western Washington, Oregon, and California. As a consequence, these regions became the primary focus of Forest Service policy, and national issues were framed in terms of these regional environmental issues.

Much of the actual political negotiation and debate focused on lands—predominantly in the western states—that the agency had classified in its highly politicized Roadless Area and Review and Evaluation (RARE) studies during 1971-1972. The Forest Service conducted this classification in an attempt to regain control over management of undeveloped forestlands. During 1971, the Forest Service contended that it was unable to conduct multiple use planning as required by administrative law, due to uncertainty over the status of its unroaded lands arising from court cases and proposed wilderness designation. Reflecting upon these times, Forest Chief Edward Cliff lamented:

Every time we made a move into a roadless area we ran into opposition which generally materialized in the form of a lawsuit or a wilderness proposal by a congressman. The principle of sovereign immunity had been breached in the court cases in the 1960s. As a result, environmentalists started filing lawsuits and conservation law became a fast growing branch of the law. If a bill was pending, that effectively stopped any activity because we didn’t want to aggravate Congress. We had no idea where we could plan or where we could be stymied. We needed to draw some parameters around areas which we could develop and which we could preserve.111

Arguing that RARE studies would clarify the status of these lands as well as constituting a national environmental impact statement for logging on them, the agency gained support for the project from officials in the Department of

Agriculture. By 1972, the Forest Service had designated 1,449 roadless areas over 55.9 million acres and selected 274 areas over 12.3 million acres to be protected while it further studied them for wilderness designation. Soon afterwards the Sierra Club sued, and settling out of court, the agency agreed to prepare an environmental impact statement and land use plan before developing any potential wilderness area. The agency’s attempts to gain impunity over development of roadless areas had only yielded the additional responsibilities linked to producing environmental impact statements for offering stumpage in these areas.

In 1975, President Gerald Ford signed an act (with no title) designating fourteen national forest wildernesses and 17 wilderness study areas, and in 1978, Congress passed the Endangered American Wilderness Act. But, many popular areas had been excluded from both pieces of legislation, and political dissatisfaction persisted. In 1978, Rupert Cutler, Assistant Secretary of Agriculture for Conservation (and earlier in his career, assistant executive director of The Wilderness Society), responded to dissatisfaction with the incompleteness of the RARE I process and with the Endangered Wilderness Act by initiating the RARE II process. At first, Cutler preferred an approach that would “release” all lands not recommended for wilderness, but he soon announced a third category named “further planning.” In 1979, Cutler announced the RARE II allocations: 15 million for wilderness consideration (one-third of this on the Alaskan Tongass National Forest), 36 million for

112 Roth, Wilderness 1964-1980, 37; Dana and Fairfax p. 300.
114 Ibid., 37; Dana and Fairfax, Forest and Range Policy, 300.

During 1984, Congress passed wilderness bills for six western states (as well as twelve eastern states), including 950,000 acres of wilderness in Oregon and 1.8 million acres in California.\footnote{Arizona Wilderness Act of 1984; Arkansas Wilderness Act of 1984; California Wilderness Act of 1984; Georgia Wilderness Act of 1984; Mississippi National Forest Wilderness Act of 1984; New Hampshire Wilderness Act of 1984; North Carolina Wilderness Act of 1984; Oregon Wilderness Act of 1984; Pennsylvania Wilderness Act of 1984; San Juan Basin Wilderness Act of 1984; Texas Wilderness Act of 1984; Utah Wilderness Act of 1984; Vermont Wilderness Act of 1984; Virginia Wilderness Act of 1984; Washington Wilderness Act of 1984; Wyoming Wilderness Act of 1984.} Passage of these bills marked the end of wilderness designation as the primary focus of the conflict over developing roadless areas, aside from Montana and Idaho roadless lands, for which acts were never passed.\footnote{Actually, Nebraska did not pass a wilderness act until 1985, (\textit{Nebraska Wilderness Act of 1985}) and Tennessee did not pass one until 1986 (\textit{Tennessee Wilderness Act of 1986}).} Nevertheless, the remaining, undesignated but defacto wilderness areas in these states were to persist as an object of political struggle.
After 1984, the focus of the roadless area conflict became a struggle between "old-growth" forest advocates and the timber industry. At the core of the battle were old-growth dependent wildlife, particularly those species fit to be listed under the ESA, of which the northern spotted owl was most consequential. During the preceding decade, researchers and activists increasingly had been focusing attention upon the spotted owl, which seemed to be diminishing in numbers and losing habitat as private, state, and federal forestry interests logged remaining old-growth forests — forests that were always slated for demise under the traditional precepts of intensive management and high level sustained yields of timber. After passage of the wilderness bills, several national and local organizations began to pressure federal agencies, particularly the Forest Service and the BLM, into managing remaining lands for the preservation of the owl. Among the national groups entering the political fracas were the Sierra Club Legal Defense Foundation, the National Wildlife Federation, and the Audubon Society. These groups were often in disagreement with the local or regionally based groups, the most powerful being the Oregon Natural Resources Council, headed by Oregon native, Andy Kerr. Ultimately, the U.S. Fish and Wildlife Service would list the northern spotted owl as threatened under the Endangered Species Act. What began as an annoyance grew into the major issue that was to give rise to the adoption of Ecosystem Management as Forest Service Policy in June 1992.
After Congress had passed the Endangered Species Act in 1973, federal and state agencies had formed an interagency group called the Oregon Endangered Species Task Force (OESTF) to "begin inventory, research, and management work on endangered Oregon wildlife." The task force -- which included representatives from the Forest Service, the Bureau of Land Management, the Fish and Wildlife Service, as well as the Oregon State Game Commission and the Oregon State University (OSU) -- was already aware that the northern spotted owl could pose legal problems. Publicity around the research work of Eric Forsman, an OSU master's student in wildlife biology, had raised the issue of declining owl habitat. Forsman recalls that he and professor Charles Meslow, of OSU, with whom he was working, were active in bringing public attention to his research results, ultimately culminating in creation of the conflict around the spotted owl. In the same year, responding to an accumulation of research around the northern spotted owl, the U.S. FWS had included the species among a list of "candidate species," for listing under the newly passed ESA. By 1976, the OESTF had devised an interim plan for the spotted owl, which included a network of land set-asides for owl habitat (a zoning strategy that would designate zones to a particular use) which the team intended to be worked into regional guides and forest plans. Three years later, the NFMA Committee of Scientists published its 1979 administrative regulations naming the spotted owl as an indicator species of old growth ecosystems. Nevertheless, the Forest Service continued to sell stumpage in

122 Yaffee, Spotted Owl, 20.
123 Forsman in Yaffee, Spotted Owl, 20. According to Yaffee, Jack Ward Thomas, then a research scientist for the Forest Service Pacific Northwest Research Station, was project funder and director for Forsman's owl research. Ibid., 19-23.
124 Durbin, Tree Huggers, 47.
owl territory and neglected to adopt a strategy for dealing with declining habitat. Not until 1984 did the Forest Service address the issue of owl management in context of an official planning document.

In June, 1984, the FS published its “Regional Guide” for Region 6 (including Oregon and Washington) — a document outlining the general direction and objectives of the Forest Service, but deferring specific resource decisions (and liability) to individual forest plans. Environmental groups promptly appealed the Guide, asserting that its lack of cumulative effects analysis concerning the relationship between logging and owl habitat violated NEPA and that its lack of viability analysis regarding effects on owl populations violated the biological diversity requirements of NFMA.\(^\text{126}\) In 1985, Deputy Assistant Secretary of Agriculture, Douglas MacCleery (previously a lobbyist for the forest products industry) succumbed to political pressures and ordered the Forest Service, particularly Region 6 (whose Forester was Jeff Sirmon), to write a supplemental environmental impact statement to the regional guide regarding management for the spotted owl. Meanwhile, MacCleery authorized logging on the controversial lands. The SEIS appeared in April 1988, and in December, the Chief of the Forest Service, Dale Robertson, signed a Record of Decision. Several groups — including old-growth advocates and timber industry groups — then filed administrative appeals which the FS promptly rejected. Subsequently, in February, 1989, the Sierra Club Legal Defense Fund (SCLDF), acting on behalf of twenty-nine groups, filed federal suits in Seattle and Portland. Seattle District Court Judge William Dwyer, basing his decision on the ESA, in March, 1989, granted a

\(^{126}\) Yaffee, Spotted Owl, 75-81.
preliminary injunction on 140 planned FS timber sales and set a court date for June, when he extended the injunction indefinitely.\textsuperscript{127}

Meanwhile, the Bureau of Land Management was facing similar legal and political problems in relation to its timber program and the northern spotted owl. In 1987, the SCLDF filed suit in U.S. District Court (in Portland, Oregon) against the BLM “over the inadequacy of their owl protection plan.”\textsuperscript{128} “In 1988, U.S. District Judge Helen Frye... granted a preliminary injunction blocking BLM timber sales in stands of trees more than 200 years old.”\textsuperscript{129} In response, spurred by industry and troubled by rapidly changing scientific pronouncements on owl ecology, Senator Mark Hatfield (R-Oregon) and Representative Les AuCoin (D-Oregon) “attached language to a spending bill for the BLM that said its management plans could not be challenged solely on the basis of new scientific information,” whereupon Judge Frye lifted the injunction.\textsuperscript{130} The legitimacy of the BLM had been strongly challenged and nearly usurped by a federal court, exposing its vulnerability to legal challenge. But through overt political maneuvering in Congress by its allies, AuCoin and Hatfield, the agency had, at least temporarily, been directed to perpetuate its current timber program.

During the same time frame, in January 1987, a small group out of Massachusetts named GreenWorld petitioned the U.S. Fish and Wildlife Service (FWS) to list the northern spotted owl as an endangered species.

\textsuperscript{127} Seattle Audubon Society v. Robertson. Also, see Sher, “Travels with Strix.”
\textsuperscript{128} Durbin, Tree Huggers, 91.
\textsuperscript{129} Ibid., 91.
\textsuperscript{130} Ibid., 91.
According to Andy Stahl, who had recently become director of the Sierra Club Legal Defense Fund, the larger environmental organizations had wanted to delay filing a petition until they had better "developed" public opinion.\(^{131}\) But, the petition by the "out-of-the-blue" group, GreenWorld, forced their hands, and in March, thirty-five other groups filed a separate petition.\(^{132}\) In December, the FWS' regional director for the northwest, Rolf Wallenstrom, acting under orders of the FWS national director, Frank Dunkle, rejected the petitions. The following May, 1988, SCLDF sued the FWS, and in November, U.S. District Judge Thomas Zilly found the FWS decision to have been "arbitrary and capricious," and ordered the Service to review its decision using available scientific evidence that the agency had ignored.\(^{133}\) In April, 1989, the FWS proposed listing the owl as threatened under the ESA and published the listing in the *Federal Register* in June. Final listing was published in the Register a year later, but the FWS had failed to designate critical habitat. The Sierra Legal Defense Fund, the Portland Audubon Society, and the Northwest Resources Defense Council sued, and in February, 1991, Judge Zilly determined that the FWS failure to designate owl habitat violated the ESA and ordered the Service to submit a plan for reviewing critical habitat.\(^{134}\) The court had effectively required the Fish and Wildlife Service -- within the Department of Interior, which had often attempted to gain control over Forest Service Lands -- to zone the Pacific Northwest for the objective of managing the owl. Since most owl lands were on national forests, the Fish and Wildlife Service would exert great control over Forest Service decision-making.

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132 Ibid.
While the Forest Service was being assailed by environmental groups, the court, and factions within Congress (see discussion below, in this chapter), the Congressional appropriations committees were busy ordering the Forest Service to raise cuts in the Pacific Northwest. For instance, in 1987, during the agency’s NFMA planning process, Congress directed the agency to harvest timber from owl national forests in Oregon and Washington at quantities eighteen percent higher than written into its draft plans. \(^{135}\) October, 1989, the Senate passed an appropriations bill dubbed the Hatfield/Adams bill with a rider — dubbed “Section 318” — that guaranteed a total timber cut of 9.6 billion board feet from federal lands in the Pacific Northwest (7.7 bbf from the FS; 1.9 from the BLM) during the 1989 and 1990 fiscal years. \(^{136}\) The bill gave environmental groups the discretion to choose which 1.1 billion board feet would be harvested (the total volume held in litigation), protecting the remaining lands from logging until the end of fiscal year, 1990, and prohibited all logging on lands with known habitat. Section 318 reduced the debate between preservationists and the timber industry to a conflict over mutually exclusive land uses — a conflict over zoning. While it conceded a great amount of timber to industry, the bill clearly signified restraints upon the Forest Service’s decision-making power, as well as acknowledging “fragmentation” as an unwanted effect of logging practices. In its accompanying conference report, Committee members chastised the agency directors regarding the “adequacy of their planned actions” concerning the spotted owl and habitat. But, the Forest Service gained on other fronts: the bill also proclaimed the final SEIS to be immune from further judicial review, “prohibited the courts

\(^{135}\) Caufield, “A Reporter at Large,” 56.

\(^{136}\) Section 318 of 1990 Interior and Related Agencies Appropriations Act.
from issuing a temporary restraining order or preliminary injunction on fiscal year 1990 timber sales," prescribed deadlines for judicial review, and streamlined the litigation process. 137 The agency was clearly caught between the courts and congress, although it was a far from passive participant.

Administrative Appeals and Litigation: Smokey’s Star Chamber

In crafting the Hatfield/Adams bill, Congress was at least temporarily responding to the Forest Service directorate’s complaints regarding increasing demands upon planners and disruption of management activities resulting from litigation and administrative appeals. These complaints were part of a campaign to limit public control of the agency (a campaign that the Forest Service kept active at least until the mid-1990s). In the mid-1980s, the Forest Service contended with an increasing number of administrative appeals to timber sales as well as lawsuits, largely based upon allegedly inadequate environmental impact statements. The agency was not prepared for the increasing number of appeals, and a backlog developed, increasing the processing period for each appeal. In addition, by 1985, as national forests completed their NFMA mandated forest plans, environmental groups began appealing the plans, further increasing the agency’s burden. According to the General Accounting Office report:

Nationwide, the number of Forest Service appeals filed annually more than doubled between fiscal years 1983 and 1988, from 584 to 1,298. Average processing time for appeals increased from 201 days in fiscal year 1986 to 363 days by March 31, 1988, which is more than 2-1/2 times as long as generally provided for appeals processing. The nationwide backlog of unresolved appeals grew

137 Yaffee, Spotted Owl, 121.
from 64 at the end of fiscal year 1983 to 830 by the end of fiscal year 1988.138

Appeals and litigation were largely stop-gap measures, but the issue of old-growth and old-growth dependent species was beginning to emerge nationally, providing the main focus for the political conflict that would culminate in the Forest Service’s adoption of “Ecosystem Management.” One of the Forest Service’s responses was to work behind the scenes to limit access to public involvement in management through administrative appeal and litigation.

In March 1989, the Senate Subcommittee on Conservation and Forestry convened a “Hearing on Appeals Process Used by the Forest Service” to review the consequences of the new appeals process crafted by the Forest Service the previous month.139 Montana Senator Baucus played a large part in organizing the hearings, and during the proceedings, he aggressively questioned Forest Service officials. Though the hearings ostensibly concerned appeals, Leonard began his oral testimony by referring to timber supply problems, which he linked to timber sales that were not taking place due to the appeals process. In his written testimony, he stated the case more softly:

During the past year, the Forest Service appeals process has been cited as one of the causes of timber shortages in several areas of Montana and other parts of the country. Over the last 2 years, a total of 48 timber sales were appealed in the Northern Region. Of those 48, 19 were affirmed. The remainder were either remanded, settled through negotiation, or withdrawn. In 1988,

139 U.S. Senate Committee on Agriculture, Nutrition, and Forestry, Subcommittee on Conservation and Forestry, Hearing on Appeals Process.
over 52 million board feet were tied up due to appeals. That represented about 65 percent of the Region's timber sale program.140

Associate Forest Service Chief Leonard persistently attempted to link appeals and litigation to reductions in the timber supply. He particularly emphasized Region One -- comprising mostly Montana and northern Idaho -- where Baucus' constituency was situated. In November of the same year, speaking before a House of Representatives hearing, Leonard also testified that forest plans were facing the obstacle of appeal: "Of the 97 plans which have been issued in final form, we have had 825 appeals. Of that 825, 515 of those appeals have been resolved, either through local discussions or decisions. We also have 10 major lawsuits." At the time, Leonard testified, 48 plans were still tied up, though Leonard looked at the positive side: "But we now have 49 plans free and clear of appeals and lawsuits" (which was one plan over the halfway mark).

Leonard's reference to litigation was revealing. It reflected an ongoing controversy within the agency and in the political dialogue in general. In the March, senatorial hearings, Montana Senator Max Baucus, who played a large part in the proceedings (and commissioned the GAO study mentioned above), addressed Leonard about the agency's legal record in the Northern Region (Region One, Missoula, Montana): "As you know, in the last 15 cases that have gone before the Ninth Circuit Court of Appeals, the Forest Service has lost. So the Forest Service is now batting 0 for 15."141 Leonard defended the record somewhat obtusely, telling Baucus, "We have a better batting

140 Ibid., 60.
average in some of the other circuits." Linking the problems to the NEPA process, which Congress itself had instituted, Leonard added:

We have tried to utilize environmental assessments tiered back to forest plan environmental impact statements, and we simply have not been successful in convincing the ninth circuit that provides adequate consideration of the environmental impacts and that in fact in order to comply with the NEPA those kinds of decisions must be documented in a full-blown environmental impact statement. Some of it we can say has been the result of evolving standards. Some of those decisions that we have lost in recent years, if we had presented the same decisions to the court 5 years ago might very well been accepted. The NEPA law has been evolving.¹⁴²

Leonard continued to construct the link between timber shortages and environmental appeals and litigation, while also continuing to develop the link between these procedural obstacles and federal law, particularly NEPA. In this context, Leonard told Congress that “appeals and litigation have resulted in delays and withdrawals of timber sales, and they have also identified the need for us to go back and rework previously prepared sales to bring the NEPA documentation to standard.”¹⁴³ Furthermore, Leonard argued, “NEPA rework has substantially slowed the completion of timber sale preparation. It has also meant that decisions to make sales are delayed to the point that an appeal cannot be resolved without delaying the planned sale date.”¹⁴⁴ From the agency's perspective, the main problems it faced resulted from inadequacies in procedural law, not misconduct on the part of the agency. On issues of substance — the technical content of plans and sales — the Forest Service retained its hegemony. Leonard added:

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¹⁴² Ibid.
¹⁴⁴ Ibid., 25.
I would like to point out that while appeals and lawsuits have revealed procedural deficiencies in complying with the National Environmental Policy Act, there have been no decisions in either appeals or litigation identifying substantive violations of other environmental laws or of the standards and guidelines in forest plans.\footnote{Ibid.}

In making the link to NEPA and other procedural considerations, Leonard tried to soften his critique upon citizen involvement through appeals and litigation, stating (enigmatically) that appeals were actually a symptom of timber shortages and that -- presumably under further refined conditions -- they were a practical aid to forest management. He added:

Although administrative appeals have delayed and in some cases stopped timber sales, we believe appeals are more a symptom than the cause of the timber shortage problems. The appeal process costs the Forest Service time and money. However, the appeal process is a beneficial tool the public and our land managers can use in making responsible natural resource decisions and detecting emerging issues.\footnote{Ibid., 60.}

Leonard went even further, touching upon the democratic and practical functions of administrative appeals, which he more fully acknowledged elsewhere while lamenting its role in political conflict. He noted:

Appeals play an important role in the management of the national forests. The Forest Service makes every effort to delegate decisionmaking to the lowest possible level. We want the decision to be made by people who are most familiar with the conditions on the ground.

But, in making these delegations, we create opportunities for different interpretations of regulations and procedures. The appeals process gives people who may be adversely affected by a decision an opportunity to have it reviewed by a higher level.

\footnote{Ibid.}
And it is an important part of ensuring that we remain responsive to the public.\textsuperscript{147}

Thus framed, Congress and the Forest Service had presented the issue of appeals as being a tension between two conflicting ideas: the democratic process and its consequent slowdowns versus the efficiency and timeliness of goods and services delivered (notably, timber) by an unconstrained management agency. In the words of Wyche Fowler, a Georgia Senator and member of the subcommittee: "While we want to avoid unnecessary impediments to Forest Service management activities, the solution to such problems cannot come at the expense of public participation and interest in good forest planning and management."\textsuperscript{148}

With this tension so expressed, Leonard informed Congress, in February, 1989, the directorate "made changes in our appeal regulations to standardize or to streamline the process and to try to encourage resolution of disputes outside the appeals process."\textsuperscript{149} In written testimony, in the last sentence of the paragraph attesting to the rightness of having an appeals process, Leonard wrote that "We believe our new appeal regulations will go a long way toward reducing the cost and delays we experienced in the past."\textsuperscript{150} Leonard claimed that the new appeals process would result in cooperation between the Forest Service and local activists -- presumably environmentalists -- and an increase of informal agreements that would allow controversial stumpage sales to continue. Leonard stated:

\textsuperscript{147} Ibid., 25.  
\textsuperscript{148} Ibid.  
\textsuperscript{149} Ibid.  
\textsuperscript{150} Ibid., 60.
There is no doubt that the new appeal procedures are changing the way we approach planning and decisionmaking. Although it is still early for any definite conclusions, we are greatly encouraged by what we see as a change for the better under the new rules. We already have examples of controversial timber sales and other decisions going forward because of an understanding being reached between the public and the Forest Service at a local level. This was one of the goals we hoped to achieve under the new rules. One underlying objective in developing the new rule was to get people to work out their differences in an informal setting during project development rather than waiting until after the environmental documents were complete. By informally working out differences early in the process, we expect to implement projects more quickly.\footnote{151}

Presumably, environmentalists would have to bargain informally with the Forest Service as a result of decreased access to the alternatives of appeals. If the agency’s reasoning were correct, then the appeals process would speed up, and the backlog of delayed timber sales would diminish. The agency would opt for efficiency over public participation.

Bob Wolf — retired congressional staffer (who, as a chief staffer for Senator Hubert Humphrey, had drafted the RPA and NFMA) and past Forest Service forester and economist — opposed this trade-off and testified that the changes were anti-democratic. Wolf further testified that the timber industry, which would directly benefit from the dispatch of the appealed timber sales, unduly influenced the decision to institute further restrictions on appeals. Wolf wrote:

Now the Forest Products Industry and the Forest Service want to make it more difficult for conservation groups to secure an administrative review of their concerns. They would tilt the jury box.

\footnote{151 Ibid.}
Wolf believed that the high number of appeals resulted from public dissatisfaction with the Forest Service's plans, not because the process was too easy to use, and that the correct solution would be to manage in line with public opinion. Wolf stated:

I view the volume of appeals as an indicator of general dissatisfaction with the proposed National Forest Plans. I think that commodity or noncommodity groups file appeals for reasons they believe are just. The solution will not be found in changing the appeals process. It will come when the Forest Service addresses the reasons for the several publics registering their votes of low confidence.\(^{152}\)

Leonard did not acknowledge a public "vote of low confidence," however, and continued to focus upon the need for an uninterrupted supply of timber. From Leonard's perspective, the timber program would remain the highest priority, despite earlier rhetoric pertaining to the virtues of public participation. Leonard summarized his testimony with the claim: "We hope the combination of these actions and the emphasis we have placed on predecisional public involvement in our new appeal regulations will create a situation conducive to refilling the 'timber pipeline.'"\(^{153}\)

Pipeline or not, the agency remained entangled in court. In October, Chief Robertson appeared before a senatorial joint hearing, in which Senator Mark Hatfield from Oregon readdressed the question of the Forest Service's recent legal history: "Over the last 5 years, how many lawsuits and appeals have been filed in Region 6 [Pacific Northwest] on the activities of the Forest Service?" Robertson replied that "there have been 21 appeals and 1 lawsuit challenging an old timber management plan to date. There have been


hundreds of appeals and lawsuits for project-level activities.” Presently, Robertson added, “I can tell you right now the Forest Service has about 3,300 lawsuits pending nationwide, 3,300,” of which “between 10 to 20 percent” concerned activities in the Region 6.\textsuperscript{154}

\textbf{Owl II: Listing and Post-Listing (1990-1992)}

Meanwhile, politics largely out of control of the Forest Service were producing results with great bearing upon the agency’s discretion over the national forests. In June, 1990, when the FWS had listed as threatened the spotted owl, it had failed to designate critical habitat, though the ESA mandates that the agency must simultaneously list a species and designate habitat. Subsequently, in a federal district court ruling in February 1991, judge Thomas Zilly had ordered the FWS to propose critical habitat by April 30.\textsuperscript{155}

By March, Secretary of Interior Manuel Lujan, announced that he had assembled an endangered species recovery team -- consisting largely of political appointees with nominal representation by biologists -- which published its proposed critical habitat on May 6. The designation included 11.6 million acres, 6.5 million of them on national forests. In response, BLM Director, Cy Jamison requested that Secretary Lujan convene an Endangered Species Committee to evaluate the exception of forty-four timber sales on BLM lands within the proposed critical habitat, which Lujan accepted in late September. Political pressure came to bear upon the FWS, which dropped its

\textsuperscript{155} \textit{Northern Spotted Owl v. Lujan}.  

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habitat designation to a total of 6.9 million acres, issuing its final recommendations in early January, 1992.156

The subsequent February, "a federal judge issued a preliminary injunction... blocking all logging in old-growth forests on U.S. Bureau of Land Management property because of danger to the northern spotted owl's habitat."157 On May 14, 1992, the ESC — known as the "God Squad" — after hearings surrounded by public fanfare and spectacle, voted to exempt fourteen of the forty-four sales — an ambiguous result. The Sierra Club Legal Defense Fund promptly filed suit to stop the sales. Meanwhile, during the same month, the FWS published its draft owl recovery plan in Portland, while BLM director, Jamison, continued to work on his own plan, featuring more timber than the FWS draft plan offered.158

The Bush administration opposed implementation of the draft recovery plan, which was a modification of the ISC strategy, arguing that it would result in the loss of 32,000 jobs.159 In early 1991, the Forest Service succumbed to pressure from the Bush administration and rejected the ISC owl conservation strategy, and several groups responded by filing suits against the agency for scheduling timber sales under no explicit plan.160 In early 1991, the court again enjoined the agency from timber sales in lands suitable to owl habitat and ordered the FS to deliver a timetable for completing an owl management

158 Yaffee, Spotted Owl, 136-40.
159 Durbin, Tree Huggers, 137-38.
160 Yaffee, Spotted Owl, 136-40.
plan by June 15 and a plan by March, 1992. In late May, 1991, two weeks after the FWS published its proposed habitat designations, Judge Dwyer, in *Seattle Audobon v. Evans* (771 F. Supp. 1081), permanently enjoined FS timber sales in designated owl habitat “until the FS completed a new spotted owl management plan and environmental analysis.”

Ruling that the agency “had violated the EIS requirements of NEPA,” he wrote in strong language: “The problem here has not been any shortcomings in the laws, but simply a refusal of administrative agencies to comply with them. This involves a public interest of the highest order: the interest in having government officials act in accordance with the law.”

Meanwhile, the issues concerning roadless areas and old-growth forest began to expand — conceptually and geographically — threatening further action and curtailment of Forest Service discretion. The list of politically important (ESA listed or proposed) old-growth dependent species was growing, and various congressional members were crafting their own solutions to the old-growth controversy. In 1990, Senator Patrick Leahy (Vermont, D) criticized foresters for not accounting for changing political demands and indirectly warned the Forest Service and other agencies that Congress was preparing legislation to remedy this neglect. Leahy suggested:

> Despite the dramatic change in public view, it seems that the forestry profession has been slow to respond. For that reason, Congress has become increasingly active in environmental and forestry issues. ... This increased congressional activism has been renewed in the last two years and will continue on several fronts. Key areas include: old growth forests; global warming;

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161 Ibid., 133.
acid rain; wilderness preservation; and forest planning. Last week the Senate passed my Forest Stewardship Act as a separate title in the 1990 Farm bill. This is the first time a forestry title has ever been incorporated into a farm bill and bears witness to the importance Congress now places on forestry.164

On April 19, 1990, the same day that the ISC was presenting its findings to a Congressional hearing, Congressman Jim Jontz (D, Indiana) introduced a bill with 24 co-sponsors to establish an ancient forest reserve system on Forest Service and BLM lands. The proposed Ancient Forests Protection Act did not pass, but the idea persisted through 1992, representing the sentiment within some sectors of Congress that the FS discretion regarding forest management should be further censured. In April, 1991, the House Agriculture Committee and the House Merchant Marine and Fisheries Committee convened a “Scientific Panel on Late-Successional Forest Ecosystems” (dubbed Gang of Four by the timber industry and hereafter Scientific Panel165) in an attempt “to get things going by providing members of Congress with a menu of options from which they could build forest protection legislation.”166 John Gordon, a panel member and Dean of the Yale forestry school, recalls that the formation of the team “was symptomatic of the Forest Service losing control,” and the Forest Service Chief was unhappy about it.167 According to Gordon:

The fact that the Forest Service was not very happy about what we were doing must have been that they felt they lost something that way—control, I suppose. We were called in by Dale Robertson, and sort of bawled out for running off and getting Forest Service scientists involved.168

164 Leahy, “Forestry and Foresters,” 31-32.
165 Timber industry presumably chose this name to cast the panel in the light of the Chinese communist leadership, a bizarre instance of red-baiting.
166 Durbin, Tree Huggers, 168.
168 Ibid., 10.
Responding to a growing body of research and political claims concerning the reduction of salmon populations, as well as owl populations and habitat, the Scientific Panel concluded that protecting the salmon would require controversial decreases in old-growth logging, particularly roadbuilding. "[L]ike it or not, the Forest Service would have to start taking fish protection seriously in the owl forests west of the Cascade."169 Meanwhile, the FWS was preparing to announce its proposed threatened species listing of the marbled marrulet, which it published in September, 1992. By Spring, 1992, two House committees were considering bills to control management of the owl forests. According to the New York Times:

At issue are unlogged forests in Northern California, Oregon, and Washington. Even as a Cabinet-level committee votes this week on how much forest should be cut, two committees of the House are set to deal with proposals that would protect endangered species by identifying and preserving ranges covering millions of acres.170

According to the New York Times, the two “bills now in the House would slow the harvest of ancient timber and make available millions of dollars for retraining workers and restoring lands ruined by clear cutting.”171 A bill approved in the House Interior Committee (co-written by Representatives Bruce Vento, Dem., Minnesota and George Miller, Dem., Cal) would have “set aside roughly eight million acres of land to remain uncut and put one million acres out of reach of loggers temporarily for researchers.” Another bill, out of the House Agriculture Committee, would have “establish[ed] a 6.8 million-acre owl preserve in the Northwest.”172

169 Durbin, Tree Huggers, 170.
171 Ibid.
Meanwhile, the Forest Service continued to face difficulties in the federal courts. In January, 1992, the Forest Service had produced a supplemental Final Environmental Impact Statement on Management for the Northern spotted Owl. (The EIS supplemented the Regional Guide, which the Forest Service published in 1984.) The agency's preferred alternative and proposed action was to adopt the Interagency Scientific Committee (ISC) plan as the framework for management of owl habitat in the Pacific Northwest. 173 Environmentalists appealed the plan arguing that it neglected "information produced subsequent to the 1990 ISC report and that the EIS failed to take into account the impact that an owl plan would have on 32 other old-growth-dependent species." 174 Judge Dwyer rejected the plan in May, ruling that the agency had failed to address three issues: whether or not "the Fish and Wildlife Service's jeopardy call on the 13 Bureau of Land Management sales released for harvest by special review process under the ESA (the "God Squad") necessitated a revision of the viability assessments used in the EIS"; whether or not "new information about declining owl populations require changing the probabilities of maintaining viable owl populations"; and, whether or not the agency's plan would "lead to extirpation of the 32 species closely associated with old-growth, which had been part of the Gang of Four report." 175

Judge Dwyer subsequently imposed a new temporary restraining order through the summer and fall of 1992, shutting down logging on old-growth in

173 Yaffee, Spotted Owl, 398, fn.66.
174 Ibid., 398, fn.66.
the Pacific northwest. The Region 6 harvest level declined from 4.9 billion board feet in 1990 to just 0.77 million in 1992.\textsuperscript{176} The Forest Service, having lost much of its discretion in the management of its lands in its only "paying" region, faced the task of providing a planning framework that would suit the federal court. Meanwhile, the ruling put pressure on Congress to form a legislative solution to the political conflict between timber jobs and the northern spotted owl, threatening a farther reaching restraint upon the agency, at a time when the conflict was moving east toward the interior Columbia basin and the northern Rockies and expanding to include more species.\textsuperscript{177}

\textbf{The Conflict Expands}

To complicate matters further for the Forest Service, environmentalists and the media began to expand the discourse to the "eastside forests" (east of the Cascades) and the northern Rockies, as well as other regions, while expanding the list of politically important species. In December 1991, \textit{Time} magazine proclaimed in its by-line that "the fight is not just about spotted owls anymore. Conservationists step up an all-fronts campaign to save America's ancient forests."\textsuperscript{178} The article, entitled "Whose woods are these?" (in bold letters), began with an apocalyptic tone: "Deep inside the dwindling woods, a rare species of bird is threatened with extinction. Before loggers came to the forest, the birds could easily find the trees they needed for nesting --

\textsuperscript{178} Lemonick, "Whose Woods are These?" 70.
trees at least 80 to 100 years old. But the relentless advance of chain saws has leveled much of the old woodland." The story, referring to national forests, went on to link the Pacific Northwest controversy to other regions and species beyond the owl, conveying a voice of alarm and criticism to a large, mainstream readership:

This story may sound familiar, but these forests are not in the Pacific Northwest, and the bird in question is not the northern spotted owl. It is the red-cockaded woodpecker, a striking red-black-and-white bird that lives in loblolly and longleaf pines from Virginia to Texas. Like the owl, it is being used by biologists as an indicator species, a sensitive probe of the vitality of forests across a broad swath of the U.S. Just as dying canaries once let coal miners know that oxygen levels were perilously low, the decline of the red-cockaded woodpecker, the northern spotted owl, and many other species is a warning of a far greater threat: America's few remaining stands of old-growth forests — woods whose ancient trees have never been logged — are in danger of disappearing as distinct and valuable ecosystems.179

In November, 1991, the Fish and Wildlife Service "determined that logging in the Southwest was rapidly destroying the dense forests in which the Mexican spotted owl lives" and proposed that owl also be listed as a threatened species.180 By January, the Forest Service had "temporarily closed thousands of acres of federal land in the Southwest to logging," dropping timber production in the Gila National Forest by 50 percent from the previous year's levels, "under a plan to protect the owl while it is studied."181 In early May 1992, the National Marine Fisheries Service listed the Snake River chinook salmon as a threatened species. According to the Washington Post, "East-side forests provide spawning ground for some Chinook, and logging could be

179 Ibid., 70.
181 Ibid., L, 7.
halted to prevent further degradation of salmon habitat hit hard by clear-cutting and cattle grazing that raise water temperatures and cloud streams with sediment."182

A Washington Post front-page headline ominously declared that an "'unraveling' of ecosystems looms in Oregon forests," further reporting that "scientists say recovery could take [a] century."183 At the time, the House Interior and Agriculture Committees were debating inclusion of provisions for "the east-side" in ancient forest legislation under consideration. In an attempt to "reduce pressure to include provisions on east-side forests in legislation now being written by the House Interior and Agriculture committees," House Speaker, Tom Foley (D-Washington) and Oregon Senator Mark Hatfield wrote a letter to Agriculture Secretary Ed Madigan, requesting him to "undertake a scientific study of the insect- and disease-ravaged national forests in eastern Oregon and Washington."184 This was seen by environmental groups as portending an effect in order to increase the east-side cut to partially offset the loss of northwest timber production.

The Forest Service was facing similar activism in its Northern Region, where environmentalists were winning suits regarding sensitive species on national forests as well as crafting regional legislation.185 In Montana, for which Congress had not passed a wilderness bill, environmentalists had

\[\text{References:}\]

183 Ibid., A,1.
185 For instance, see the Northern Rockies Ecosystem Protection Act, which the Alliance for the Wild Rockies drafted. Congress introduced the bill, which did not pass, in 1993.
formed, in 1988, the Alliance for the Wild Rockies. In 1990, the popular _Outdoor Magazine_ announced that the group was “one of eight ‘homegrown’ or ‘low-budget’ environmental groups nationwide” to meet its “‘honor roll’ of small environmental groups,” which, according to the editors, “may be the future of the environmental movement.”\(^{186}\)

At this time the alliance, directed by Mike Bader in Missoula, Montana, was drafting its Northern Rockies Ecosystem Protection Act, which would cover over 16.3 million acres in Montana and Idaho (both states without Congressional wilderness bills), Wyoming, eastern Oregon, and eastern Washington.\(^{187}\) (Ultimately, the Alliance was unable to garner the support of the Montana delegation, but by 1993, with the help of legislators from other states, the group was able to see its bill introduced.)\(^{188}\)

**Below Cost Timber Sales**

In 1991, the House Agriculture Committee decided to visit the issue of below-cost timber sales, which had persistently been an object of criticism since the beginning of the conflict over PNW ancient forests. Paul Hirt writes that, although below-costs sales “have been common since World War Two, the losses have accelerated over the years as forest managers increasingly turned to the lower valued and more inaccessible timber in the remote high country to fulfill their logging quotas.”\(^{189}\) As early as 1980, the Natural Resources

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\(^{186}\) Sherry Devlin, “Alliance Named by Magazine,” _Missoulian_ , September 1, 1990, B-1.


\(^{188}\) _Northern Rockies Ecosystem Protection Act_.

\(^{189}\) Hirt, _Conspircacy_, xxxix.
Defense Council directed attention to below cost sales when it issued a report entitled "Giving away the National Forests." In 1984, the U.S. General Accounting Office conducted its own study, discovering that "in 1981 and 1982, 96 percent of timber sales in the Forest Service's Rocky Mountain Region... lost money; while 93 percent in the Intermountain Region lost money; and 60 percent in the Northern Region lost money." 10

In July, 1990, retired Congressional Research Service staffer, Robert Wolf, wrote that "the most serious failure in implementing NFMA concerns the cost tracking provisions. In sum, the Forest Service claims profits from its timber sales that are unrealistic if not egregious." 11 Wolf contended that roads built by loggers ("purchaser credit roads") should not be counted by the Forest Service as a revenue, and that payments made to counties (in lieu of taxes) should be counted as a cost. This accounting would turn profits claimed by the agency into losses. 12

A year later, in October 1991, the House Agriculture Committee held hearings on the issue of the timber program's revenues and losses, where Wolf presented his figures. A scathing article in the *Atlantic Monthly* entitled "The mismanagement of the National Forests," criticized the political manipulation of agency budget reporting, arguing "that the U.S. Forest Service, protected from congressional scrutiny by pork-barrel politics and imaginative bookkeeping, is devastating America's national forests through

10 Ibid., 279.
12 Ibid.
needless and unprofitable timber sales.”¹⁹³ The author, a one-time “voluntary wilderness guard” for the agency, began with a litany of graphically described ecological abuses resulting from logging, then proceeded to an analysis of the agency’s “timber mythology,” finally focusing upon the timber program’s effect on “the federal purse.” Knize proclaimed:

The Forest Service has long claimed that the government makes money on timber sales, but an analysis performed at the request of the House Government Operations Subcommittee on the Environment, Energy, and Natural Resources shows that the Forest Service timber program has lost $5.6 billion over the past decade.”¹⁹⁴

*Time* magazine, also commented upon the proceedings with a critical voice. The magazine argued that agency “logging operations are questionable on economic grounds.”¹⁹⁵ The magazine reported that, “while the agency claims it made $628 million in profit last year, critics dismiss that figure as absurd. During the hearings Wolf pointed to the agency’s use of ‘inflated revenues and discounted costs,’ telling the House Agriculture Committee in October that ‘these mythical profits are achieved by accounting alchemy.’”¹⁹⁶

At issue were several reported timber program costs and revenues, for instance whether or not costs should include the 25 percent payment to counties required from timber receipts, road maintenance, and “land-line location.” Other concerns included depreciation rates for a $575 million timber fund and amortization rates for roads. According to the *Atlantic Monthly*, The Forest Service has used a number of creative accounting

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¹⁹⁴ Ibid., 100.
¹⁹⁵ Lemonick, “Whose Woods are These?” 70.
¹⁹⁶ Ibid.
gimmicks, including amortizing roads over 240 years," or, in the Chugach National Forest in Alaska, over 1,800 years. In an article from 1990, Wolf wrote:

On the receipts side of the ledger, the service counts timber that it gives to lumber companies in lieu of payments for road building as if the trees were money received that could be used to defray other costs — implying an expense is a revenue. On the expense side, it uses several methods to obscure or understate costs. The most famous examples also concern timber access roads. For roads with a typical life of 20-30 years, the service uses amortization periods that range from 63 years for the lowest forest region to 969 for the highest, significantly reducing the apparent annual cost. Major expenses for road maintenance are omitted entirely. In addition, the service is working on a few new cost-hiding schemes. One would make roadbed costs disappear entirely. These are but a few examples of how the service systematically overstates receipts and understates costs, turning actual financial losses for the national forests into supposed profits.

Wolf went on to criticize the agency for overrating its "present net value," saying that aside from not even being "money in the bank," it was "not even a proven concept," depending, for instance, upon attributing "monetary value to such nonquantifiable factors as wildlife and camping." Wolf, in pointing to the economic irrationality of the Forest Service Timber Program was also alluding to the political character of is accounting.

Concluding Remarks

By early summer, 1992, the Forest Service was struggling to maintain its agency regarding management of the Pacific Northwest, the "Eastside,"

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199 Ibid., 14.
northern Rocky Mountains and beyond. Attempting to rewrite procedural regulations and fending off charges of lying to the public regarding public costs and benefits and the results of logging were among the challenges the agency faced. The Forest Service faced injunctions from timber harvest — a devastating loss of authority. The agency had severely challenged the warm and fuzzy Smoky Bear image it had attempted to construct in the 1950s and early 1960s. This tarnishing showed not only in the formal politics of the courts and capitols, but on the streets and in the national forests themselves. If external politics were not enough to challenge the agency’s identity, the agency was also being forced to confront dissent from within, marking the unambiguous end to the relative internal solidarity boasted in earlier decades.

200 Yaffee, *Spotted Owl*, 139-40.
Chapter 4
Adding Insult to Injury: More Activism, Dissent, and Discord

Out of controllll!
--- Jefferson Starship
Modern Love (record album)

While the Forest Service was losing agency before the activism of Congress and the mandates of the federal courts, it was also facing hostility and protest from other quarters. Environmental activists exerted direct pressure at all levels — at the agency doors as well as in the National Forests, and soon a variety of popular media — ranging from mainstream newspapers and magazines, to television producers, writers and filmmakers — began to add their critiques to the discourse. Ultimately, dissatisfaction affected the Forest Service itself, and the agency suffered a crisis of dissent and discord among its own ranks, foreshadowing an organizational shift that would follow with Robertson’s memo in June, 1992. This chapter chronicles the activism facing the Forest Service from within its own ranks, as well as the political demonstrations, civil disobedience, and media criticism that the agency could not ignore.

Internal Discord (1984-1992)

In 1940, when Forest Service Chief Clappe lamented on the poor morale in the U.S. Forest Service, and thirty years later when Chief Cliff empathized with his subordinates’ sense of misdirection, they were not proclaiming an organizational breakdown, but certainly they demonstrated that diversity of...
mind existed within the agency. This diversity was, however, mainly
diversity among foresters. Environmental legislation of the 1960s and 1970s
significantly changed this situation. After Congress had passed the National
Environmental Policy and National Forest Management Acts, each of which
required the Forest Service to consider the effects of management practices
upon a wide range of social, cultural, and ecological variables, the agency
began diversifying its workforce, hiring more wildlife biologists, soil scientists,
hydrologists, ecologists and economists — even historians and archeologists.

Within a decade, when the Forest Service was losing control of
management decisions in the face of Congressional activism and adverse
court decisions, it was also undergoing internal change, as newly hired
specialists began rising through the ranks. From the mid-1980s on, Forest
Service workers began criticizing agency policy — from the inside — and by the
late 1980s, even regional officers were openly critical of the Chief Forester, as
well as of agency policies. The conflict revealed that, in addition to losing
control from outside forces, the old-guard agency personnel were losing
control over its internal affairs as well.

During the 1980s, this diversity of mind manifested in outright schism
within the Forest Service, fracturing any possible sense of unity the Forest
Service might have wished to claim. By the early 1990s, this schism had
become apparent between the agency's Washington, D.C.-based central
directorate and the regionally-based Forest Supervisors and Regional
Foresters. Timber sales were the first internal battle ground. Based upon

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201 Alan McQuillan, “Inside Mumma-Gate,” Missoula Independent, October 31, 1991, 18-19; Sherry Devlin, “Region Falls Short on Timber Again,” Missoulian, September 15, 1991 and
on-the-ground assessment, regional agency officers were estimating one set of Allowable Sale Quantities, while the directorate, responding to pressures from the timber industry, a powerful bloc of westerners in Congress, and the Bush administration, exploited the RPA data base to manipulate the forest planning process and revise those numbers upward. Ultimately, the regional officers broke rank. Meanwhile, a schism had also developed between on-the-ground staff and the Forest Service administration regarding the effects of logging. Regional Foresters were caught in the middle, themselves subject to pressures from the Washington Office as well as the proddings of Congress and the executive branch, while also being respondent to their own workforce's voices.

An early and poignant statement of this unrest came in 1984 from the Forest Service's Northern Region, based in Missoula, Montana. An anonymous disgruntled agency worker from the Beaverhead National Forest in Idaho whom the *Washington Post* dubbed "Deep Root" revealed the depth of the internal division.202 (Deep Root later revealed his identity.) Deep Root's tactics including making collect phone calls to the bureaus of several major newspapers and television networks reporting Forest Service road practices in "roadless areas where timber values may be marginal or where they may be outweighed by fisheries, wildlife or recreations values," some with timber receipts below the cost of preparation, and some in violation of federal environmental law.203 According to the Denver bureau of the *Washington Post*:


For weeks now his calls have been coming in to the Washington Post bureau here and to the Denver offices of the New York Times, Newsweek, NBC, and other national media. Invariably, they are collect calls from — as the operator puts it — “an experienced forest manager in Montana.”

The anonymous whistle blower gave one example “of an illegal road” — the Howell Creek Road — claiming it was “built inside RARE II (wilderness study) areas prematurely before any Montana wilderness bill passed and before any cumulative impact study was performed for all projected roads in the area,” and, in the words of the reporter, “contended that similar examples exist on the Kootenai, Flathead, Lolo, Bitterroot, Deerlodge, and Gallatin forests.” According to several sources, Deep Root was an experienced forest manager — a “professional forester” belonging to any of several professional groups including the Society of American Foresters and the American Forestry Association. Other professionals adopted the tactics, eventually gaining a defensive response from Forest Service Chief Max Peterson and the attention of Montana Senator John Melcher (D), who met in private with Deep Root. Melcher, claimed that he shared many of the concerns with Deep Root and would investigate whether or not the National Forest Management Act was meeting Congressional intent. He told the press, “He tapped the root with me.”

While the Deep Root spectacle was seemingly a regional event, unrest took a national course four years later when disgruntled Forest Service workers formed the Association of Forest Service Employees for Environmental Ethics,

or AFSEE. In 1989, Jeff Debonis, a timber sale planner on the Willamette Forest, wrote an e-mail memo to Chief Dale Robertson criticizing the Forest Service timber program. Debonis, in his memo, which became public, wrote:

We, as an agency, are perceived by the conservation community as being an advocate of the timber industry’s agenda. Based on my 10 years with the Forest Service, I believe this charge is true. I also believe, along with any others, that this agency needs to re-take the moral “high ground.”

Subsequently, Debonis formed the Association of Forest Service Employees for Environmental Ethics (AFSEE) and began publishing a monthly newspaper-style magazine, the *Inner Voice*, starting with an open letter to Dale Robertson criticizing the close relationship between the agency and the timber industry:

Our basic problem right now is that we (the Forest Service) are much too biased towards the resource-extraction industries, particularly the timber industry. We support their narrowly focused, short sighted agenda to the point that we are perceived by much of the public as being dupes of, and mere spokespersons for the resource extraction industries.

Debonis went on to criticize the agency for overlooking the effects of its own management, particularly overcutting, writing that:

This stubborn, get-the-cut-out mindset we tend to embrace as an agency blinds us to the actual destructive results of our actions. We see only what we want to see. As the negative impacts of our actions become more and more obvious, we try to pretend it’s not happening. And yet at some subconscious level we know that we are overcutting.

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208 Debonis, in Durbin, *Tree Huggers*, 102.
210 Ibid., 4

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Early the next year, Robertson replied to Debonis, via the *Inner Voice*, commending him for bringing up "several good ideas," but disagreeing with Debonis' assessment of the "attitude of the Forest Service": "It does not represent my attitude nor that of the people I work with and know best."211 Robertson, again, appealed to "balance," a signifier the Forest Service would employ throughout the conflict.212 Robertson wrote:

It seems to me that your letter was one-sided and did not appropriately take into account the interest and needs of the American people in the Forest. We in the Forest Service have to keep a more balanced view of the world under our multiple use mandate. I think one of the things we have to guard against is getting caught up in the rhetoric of either the timber industry or the environmental groups and start believing it without putting some balance into it.213

However, Chief Robertson did approve of "participatory management" and encouraged employees to "speak up and let their views be known" so the agency could benefit from "advantages of a diverse workforce."214 Robertson went on to appeal personally to Debonis to promote constructive, balanced and sensitive reform in the agency, writing, "Jeff, I hope I can count on you to bring about constructive change in the Forest Service -- change that is sensitive to both the environment and the people who are affected by our decisions."215 Robertson wanted benefit from the advantages of diversity

211 Robertson, "Chief Robertson Responds," 3.
212 The use of the term "balance," and the Forest Service's claim to promote a balanced policy, is an example of a political appropriation of a popular term. Balance is a vague reference to the themes of civility and reason, primary organizing ideas in the historical development of modern bureaucracies. For a good discussion of this relationship between civility and policy as it developed in Europe, see Michel Foucault, *Discipline and Punish*, and his *Madness and Civilization.*
213 Robertson, 3.
214 Ibid.
215 Ibid.
within the agency without suffering the disadvantages of the conflict that might result from such diversity.

The Inner Voice soon attracted writers from National Forests and BLM lands all over the United States, writing on issues as diverse as abuse of archeological sites to the silencing of whistle blowers. It became popular and well distributed and attracted contributions from government workers and citizens alike, eventually "showing up on the desks and counters of Forest Service and BLM offices throughout the West."²¹⁶

The Forest Service directorate also faced internal opposition from a significant number of the Regional Foresters and Forest Supervisors. Following a November, 1989, meeting of Forest Supervisors at the "Sunbird Conference," in Tucson, Arizona, "supervisors from 63 national forests" from Regions 1, 2, 3, and 4 signed a memo recommending agency reform.²¹⁷ The supervisors charged that agency prioritizing and budgeting — particularly its emphasis on timber production — was out of proportion with the demands of society. The memo stated:

The emphasis of National Forest programs does not reflect the land stewardship values embodied in forest plans, nor does it reflect the values of many Forest Service employees and the public.²¹⁸

Our timber program has been 35 percent of the National Forest System Budget for the last 20 years while recreation, fish and wildlife, and soil and water have been 2 to 3 percent each.²¹⁹

²¹⁶ Durbin, Tree Huggers, 102.
²¹⁷ Ibid., 105; Yaffee, Spotted Owl, 300-301.
²¹⁸ Region 1, 2, 3, and 4 Forest Supervisors to the Chief, 10.
²¹⁹ Ibid., 10-11.
The memo went on to recommend studies of the agency’s “operational efficiency,” budget allocation reform, reorganization of “functional middle management positions,” and accounting reform, as well as suggesting changes in “leadership and communications” and “workforce diversity.”

During the same month, November, 1989, all of the Northern Region supervisors wrote an “open letter to the Chief” (later appearing in the Inner Voice, AFSEEE’s bi-monthly publication), similar to the Sunbird memo, lamenting that the agency was not meeting the standards expected by the public as well as agency workers. Appealing to the mythic legacy of Gifford Pinchot, the supervisors warned that without a policy change, the agency mission statement would be reduced to mere political rhetoric. The supervisors wrote:

> We are not meeting the quality land management expectations of our public and our employees. We are not being viewed as the “conservation leaders” Gifford Pinchot would have had us become, despite strong support of the rhetoric in our Mission Statement. We are worried that if we don’t make some major changes as an agency, our Mission Statement will never move from rhetoric to reality.

Referring to increased and unsustainable “stress” within the agency, due to budget cuts, personnel cuts, and an overly aggressive timber program, the Supervisors sounded an apocalyptic tone, warning the Chief that old agency responses would not suffice to meet the current threats. Change was necessary:

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220 Ibid., 11.
221 Region 1 Supervisors, “Letter to the Chief,” 10.
The Ranger District plate is overflowing and the stress on our workforce to continue to crank out more targets, work on more initiatives, work harder on more customer service projects, and work harder to resolve conflicting values at the field level, is becoming too much to ask them to bear. The stress in the organization is serious. A “can do” attitude will not save us this time. We are spread too thin. It is time that we start dealing with our internal problems, before we crack apart at the seams.222

The language of this letter spelled out what any agency would fear -- the possibility of losing control -- a possibility to which the Supervisors directly alluded. Writing that, despite the diligence of the Regional level officials (to whom the supervisors referred as “your people”) in meeting program targets set at the Washington Office, “there is a growing concern that we have become ‘an organization out of control’.”223

An important issue involved the levels of allowable sale quantities (ASQs) handed down from Washington Office at behest of the Bush administration; supervisors argued that ASQs were “unrealistically high even with full funding.”224 In 1991, forest supervisors in Region One complained to regional forester, John Mumma, that they could not meet the Bush administration’s demands for timber and the requirements of environmental laws also. Ultimately, Mumma ordered the supervisors to meet the legal requirements, despite directives from the administration.225 In response, several of the supervisors from Region One wrote to the Chief with the same message. According to Mumma, “they essentially said that we can’t meet our timber targets in the northern region and we’re asking you to exercise some

222 Ibid., 10.
223 Ibid., 10.
224 Region 1 Forest Supervisors, “Feedback to the Chief.”
225 Hirt, Conspiracy, 286.
leadership on and on. When [Chief Robertson] got that letter, he was highly offended."226 John Mumma and the supervisors invited Chief Robertson to meet with them in Big Sky, Montana, and "he was still sensitive about that letter, but we had, I think a reasonably good discussion. It didn't really resolve anything."227 According to Mumma, "many FS people felt that since [forest plans] had to go through the Secretary of Agriculture's office for approval that the numbers were higher than what the people on the ground felt were sustainable over time."228 This difference between the supervisors' estimates and those approved by the Washington Office found confirmation in the September 10 memo.229 Robertson was as unresponsive to the Regional Foresters as he was to the Forest Supervisors.

During the same year, 1991, Mumma and the eight other regional foresters met in Florida to discuss the lack of communication, eventually drafting a letter to Robertson offering to help him do his job "and help, essentially, save the Forest Service."230 According to Mumma, the Forest Service was feeling the threat that Congress could "actually dismember it and break it down like Senator Craig has proposed."231 This was not a recent trend. In the 1950s, the Forest Industries Council had proposed such a change, recommending Congress to broach the proposition of transferring federal lands to corporate ownership. In 1953 the political association distributed a report outlining its policy position in craftily selected language, which included recommendations

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226 Mumma, "Interview," 1.
227 Ibid.
228 Ibid.
230 Mumma, "Interview," 11.
231 Ibid.
that Congress study "whether our entire economy would be strengthened by restoring [to private ownership] some federal forest lands."232 According to Mumma, as late as 1991, the political environment still insinuated change that could drastically affect who controlled public land management. "In fact, you would think about whether there would be a Forest Service as we knew it then, twenty years from then, because certainly there was strong motivation to make significant changes."233 Nevertheless, George Leonard, an Associate Chief, rather than Robertson, replied to the letter, implying that the issue was not necessarily a top priority concern to Robertson.

In September of the same year, 1991, Mumma accepted retirement rather than reassignment to "an unspecified job in Washington D.C."234 According to The New York Times, Mumma "was forced into retirement at the age of 51 this month after western Republican senators and timber industry executives complained that he was not allowing trees to be logged fast enough from the Rocky Mountains."235 Conversely, the agency claimed Mumma was transferred because of "poor performance ratings."236 According to Susan Hess, "director of public affairs for the Forest Service," Mumma's "inability... to meet the timber cut was only part of the reason for his ouster. She said his removal as regional forester was not an attempt to stifle dissident voices... but rather 'was due to the general job performance...'"237

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232 Forest Industries Council in Hirt, Conspiracy, 110. Italics added.
233 Mumma, "Interview," 11.
234 Hirt, Conspiracy, 286.
236 Hirt, Conspiracy, 286.
Mumma left the Forest Service, he testified before the House Post Office and Civil Service subcommittee regarding "allegations that the Forest Service logged national forests illegally and retaliated against agency whistle blowers." This issue of retaliation against whistle-blowers was soon to become a serious political issue.

The following January, 1992, John McCormick, "the former special agent who handled whistle-blower complaints at the Forest Service," affirmed Mumma's testimony in front of the same committee, saying that "the agency violated environmental laws, manipulated scientific evidence to benefit the timber industry and punished workers who raised objections." That same month, McCormick published an Opinion-Editorial piece in the *New York Times*, entitled, "Can't See the Forest for the Sleaze," where he listed environmental violations and pork barrel resource give aways, as well as describing an agency policy of assigning investigations to regional offices and, in the process, identifying whistleblowers to their superiors. According to McCormick, the "quantity of whistle-blower allegations has increased sevenfold since 1987," most of them going unheeded. In response to McCormick's testimony, Representative Gerry Sikorski, chairman of the House subcommittee, asked the Justice Department to investigate the charges. Two months later, "a group of former and current employees" held a press conference, "charging that America's ancient forests are being devastated by

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241 Ibid.

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overlogging,” and calling for “radical changes in agency management.” According to the New York Times, “Biologists and timber planners also told a news conference they had been harassed by superiors when they tried to expose Forest Service abuses, including proposed logging in areas where rare bald eagles and spotted owls were nesting.” According to Francis Mangels, a Shasta-Trinity National Forest biologist, “reprisals were vicious and immediate.”

By 1992, the Forest Service was being assailed by its own officers; organizational integrity and rank had broken down. In part, this involved the courts assigning decision-making power to the science team members. An, in part, this disintegration reflected demographic changes within the agency. According to Hirt:

One particularly comprehensive study by researchers at the University of California, Davis, interviewed over 1,000 Forest Service employees in 1989-92 and compared their findings with those of several previous studies dating back to the 1950s. They concluded that there had been significant change in attitudes among Forest Service personnel, accelerated during the 1980s. In particular, they found a marked decline in support for increased timber harvesting, from 62 percent of respondents in a 1981 study to 7 percent of respondents in the 1992 survey. The causes for the change in attitude included personnel turnover, an increase in the hiring of professionals trained in noncommodity disciplines, broader exposure of employees to other professions because of NFMA’s requirement for interdisciplinary planning and actual changes in individual attitudes of long-term employees.

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243 Ibid., A19.
244 Hirt, Conspiracy, 282-83.
In 1992, University of Michigan researchers who also surveyed agency workers found that, while "70 percent of respondents chose wildlife and fish or water or recreation as the most important use," the majority also believed the Forest Service prioritized timber.\textsuperscript{245} The survey showed a strong schism between agency values and employee values, a split reflected in the agency's multifold internal dissent.

On the Streets and in the Woods: Activism and the Negation of Authority

Old-growth supporters, like other environmental advocates, adopted a variety of tactics -- mass mailings, television spots, and other mass marketing techniques, lobbying and so forth -- but none brought as much media attention and sense of urgency as the direct actions like on-site protests and obstruction of logging, the occupation of politicians' offices, the picketing, and other forms of protests.

In 1983, "EarthFirst! made its Northwest debut on Bald Mountain Road," in the Siskiyou National Forest\textsuperscript{246} Tipped off by a call from a Forest Service soil scientist that the agency was roading into an area of old-growth forest long in dispute, several activists, in an act of civil disobedience, entered the site and blocked the bulldozer -- leading to several arrests. This event, as well as any, marks an escalation in direct activism against the Forest Service that was to change the face of environmental activism in the U.S.

\textsuperscript{245} Ibid.
\textsuperscript{246} Durbin, \textit{Tree Huggers}, 58.
EarthFirst! tactics varied widely, as did the personalities of “EarthFirst!ers,” with loosely affiliated groups scattered across the country. Several groups published local newsletters (for instance, The Wild Rockies Review in Missoula, Mont.), and volunteers published the monthly national EarthFirst! journal. Most EarthFirst!ers engaged in at least some form of “direct action” – for instance occupying politicians’ offices (some locking themselves to furniture), having themselves buried to the neck in the middle of a logging road, occupying old-growth trees in platforms 100 feet above the ground, disrupting Forest Service meetings, and so forth. In rare cases, people engaged in tree-spiking and industrial sabotage, though these practices were subject to significant controversy within the group.

Direct action demonstrations persisted for months, delaying the Forest Service, “drawing national news coverage” and attracting the funds necessary to take the case to court.247 Soon afterward, EarthFirst! held a “Round River Rendezvous” on the Rogue River. In the central Cascades, the Breitenbush Community, a land-owning cooperative near the Willamette National Forest, “became a base of operations for forest activists who blocked logging roads and sat in trees to slow the rate of logging in the North Santiam Canyon, a timber stronghold long accustomed to getting its way with the Forest Service.”248

Outreach and education activities included Lou Gold’s lecture and slide show, which he presented across the country more than 500 times. And, in 1989, two former EarthFirst! activists bought a log from a 780-year old Douglas fir, and toured the country with it to demonstrate the “magnificence of the

247 Ibid., 59
248 Ibid., 76.
ancient forests" in the Pacific Northwest to people who, because they lived so far away from the region, would never have much if any direct experience of the forests. In 1989, the Alliance for the Wild Rockies began promoting legislation for the northern Rockies by organizing a traveling slide-show presentation that traveled nationally, including a tour of the east coast.

Activists organized by the preservation groups also attempted (somewhat successfully) to contribute to (and influence) the legal and scientific discourses focusing on old growth forests, particularly those studying old growth forests. In 1988, The Wilderness Society published a report, "End of Ancient Forests: A Report on National Forest Management Plans in the Pacific Northwest." In addition to analyzing draft management plans for twelve national forests in the Pacific Northwest, the report publicized the group's own old growth inventory numbers, generated in a then on-going study. The author, Peter Morrison, an ecologist with a master's degree from the University of Washington, "using existing Forest Service data and updating it through the use of current aerial-photos," assembled the inventory according to an "ecologically-based definition [for old growth] developed by Forest Service researchers." In June, 1989, Wilderness Society President, George Frampton (later to be named as Assistant Secretary of Interior under the Clinton administration) presented these findings before a Congressional hearing, testifying that "we estimate there is probably about 2.4 million acres of old growth left. Of that, 800,000 acres is in parks and wilderness areas; the

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249 Morrison, *Old Growth in the Pacific Northwest.*
250 Durbin, *Tree Huggers,* 144
remaining 1.6 million acres not protected in any system to date." These figures contradicted the Forest Service's estimations, which were roughly double that of the Wilderness Society numbers. Meanwhile, the National Audubon Society had organized its "Adopt a Forest" campaign, in which "volunteers used Forest Service data, aerial photos, and on-the-ground observation to map all groves at least 300 acres in size that had trees at least 100 years old." Local Audubon groups were then able to use these numbers in litigation and appeals against the Forest Service and the BLM.252

Other groups similarly had used monitoring of logging activities in efforts to halt old-growth logging. In 1985, while the Headwaters group "was monitoring logging on the Medford BLM district," the Siskiyou Citizens' Task Force was studying "computer models of timber sales" on the forest.253 Related to this strain of action was a "know your watershed approach," where communities worked together to map local forests using the watershed as an organizing principle; the residents of Matole Valley used this approach in the mid-1980s to restore salmon runs and bring attention to the effects of logging in the watershed.254 Bonnie Phillips of Everett, Washington, published the Forest Voice, which featured photographs of clearcuts around the northwest. She began by printing 25,000 copies and sending them to activists nationally, who eventually gave her enough money to print 1 million copies of the first issue.255

252 Durbin, Tree Huggers, 145.
253 Ibid., 74.
254 Ibid., 74.
255 Ibid., 74
Meanwhile, the industry and labor groups were organizing direct actions of their own. Local communities hosted "rallies" where loggers and their family members testified regarding the hardships of unemployment, the virtues of the timber worker lifestyle, and other claims in opposition to logging decreases. In May 1989, "1,500 loggers, millworkers, and their families staged a 90-minute parade through Hood River, Oregon, featuring an imposing convoy of 178 log trucks and 33 wood chip and lumber trucks." Mills in the area closed so workers could participate in the event, which included displaying and cheering to signs like the one on a log truck saying ""Eat an owl, save the economy!"256

With both sides mobilized, the ancient forest conflict increased in intensity by the late 1980s, taking on a more intimidating edge. In one instance captured on film by the makers of Rage Over Trees (a film the Audubon Society was producing at the time), timber workers attacked activists engaged in direct action.257 In the summer of 1990, the group EarthFirst! organized a summer long campaign against logging of the red woods in northern California, using direct action techniques like tree sitting, picketing and road barricading. Loggers beat several protesters and their supporters, and one of the organizers, Judy Bari, who had been attempting to unite timber workers with environmental groups, nearly died when a pipe bomb exploded under her seat in an old panel truck she was driving in Berkeley, California.258 The Federal Bureau of Investigation (FBI) concluded that she had blown herself up by

256 Ibid., 97.
257 National Audubon Society, Rage Over Trees.
258 Helvarg, The War Against the Greens, 330-35.
driving around with an especially volatile pipe bomb under her seat, allegedly to bomb a target, but other accounts shed considerable doubt on this hypothesis.\(^{259}\)

Conflict afflicted the Northern Region as well, where in Missoula, during the fall of 1989, Montana, FBI and Forest Service investigated tree spikings that had taken place the previous spring in the Clearwater National Forest.\(^{260}\) Special agents from the two agencies intimidated several graduate students in the Environmental Studies program at the University of Montana, believing them to be linked to EarthFirst!\(^{261}\). The FBI investigated several people at home and at their work places and eventually served seven subpoenas by a federal grand jury in Boise, Idaho, to submit testimony and hair and shoe print samples.\(^{261}\) Agents also attempted to link the tree-spikings to professor Ron Erickson, who had opened an academic discussion in a graduate seminar to philosophical consideration of the idea of tree spiking.\(^{262}\)

**The Media (is the Message)**

Various forms of "mass media" played a strong role in pressuring the Forest Service as well, among them television and video. In 1989, Turner Broadcasting Corporation and the National Audubon Society released *Rage Over Trees*, a politically motivated film documenting the political conflict over old growth in the Pacific Northwest. Narrated by the mature-looking

\(^{259}\) Ibid.


Hollywood movie star Paul Newman, the film defined the conflict in terms of a choice between cutting or not cutting old-growth: "Will the remaining ancient forests continue to be cut? Or should they be protected? This is the question."²⁶³

Within seconds after the film began with footage of violence against direct activists in the Willamette National Forest, the film showed Newman declaring that the issue, presented as a choice between cutting "the forests" and saving them "for future generations" was related to "the heart of our society's values." The film featured aerial footage of thousands of denuded, densely roaded corporate lands as well as thousands of acres of roaded, partially denuded and fragmented national forests. Emphasizing the effects of roadbuilding, Newman's voice told the viewer that "the US Forest Service sells national forest timber in swatches of 10 to 60 acres. To access the timber, the Forest Service has already built or permitted enough logging roads to reach the moon — and plans for 100,000 miles more."²⁶⁴

In contrast with the movie star image evoked by Paul Newman, the film also featured prominent activist, John Montieth, director of the Oregon Resource Council, an influential preservation group based in Oregon, George Atilla, an airplane pilot and activist, Bob Ferris, a mill worker, and Forest Service scientist and University of Washington professor, Jerry Franklin, among others. Franklin, reasoning in terms of the practicality and functional benefits of preserving old-growth, solemnly concluded: "The need for some change is extreme — it's extremely urgent that we make our decision as a

²⁶⁴ Ibid.
society... Soon. Very Soon. This Year." Franklin was soon to accept a position on the Interagency Science Team formed to formulate an owl management plan demanded by the ninth circuit court.265

While media responses to the conflict over the national forests were diverse, environmentalism claimed a strong voice, and by the 1990s, various newspapers and newsweeklies were posting articles, features, and opinions critical of the Forest Service. For instance, recall some of the headlines mentioned earlier: in bold black letters, a *Time* headline inquired, "Whose Woods are these?" referencing "an all-fronts campaign to save America's ancient forests" from the Forest Service;266 also, the *New York Times* posted the John McCormick opinion piece, called "Can't See the Forest for the Sleaze."267 The *New Yorker*, as early as 1990, published an essay in which the author, Catherine Caufield, lambasted the Forest Service for miles of clearcutting and roading, unsustainable timber harvests, below-cost-timber sales, and generally, poor agency scruples. Regarding the agency's legacy of roadbuilding, the author wrote:

> If an area is to be clear-cut, there must, of course be a road into it, and the United States Forest Service has become the biggest road-building agency in the world. Into the fragile landscape of the national forests it has carved hundreds of thousands of miles of roads. ... That is eight times the mileage of the entire interstate highway system. Over the next fifty years, the Forest Service plans to build about a hundred thousand miles of new roads, and to rebuild over three hundred thousand miles.268

265 See chapter 6.
266 Lemonick, "Whose Woods are These?" 70
Summarizing the environmental critique and linking the federal agency's timber programs to the world economy, the author wrote "In the United States, less than ten per cent [of old growth] survives. Almost all that remains... is on public lands, and it is scheduled to be cut for lumber, plywood, and pulp, much of it for export to Japan."269

More criticism followed in the mainstream media. The Atlantic Monthly posted an article entitled "The Mismanagement of the National Forests."270 In an article entitled "A Wing and a Prayer for the Forests," the Washington Post praised the work of Lighthawk, an organization that was using light aircraft to fly policy-makers and others over Northwest ancient forests and cutover agency lands. According to the Post, "A few weeks ago, Sky [a Lighthawk pilot, took House Interior Committee Chairman, George Miller, on a tour of coastal forests. Both came back impressed, Miller with the extent of the deforestation, and Sky with Miller's fondness for a certain four-letter epithet uttered repeatedly as he looked at the clear cuts."271 In addition to articles on whistle-blowers and agency reprisals, the papers published evidence of over-cutting and environmental abuse, as well as a covering a wider sphere of environmental degradation, creating a general ambiance of environmental crisis.

In addition, several books came out criticizing the agency. Tennessee Senator Al Gore, running for Vice President on the Democratic ticket, published his provocative book, Earth in the Balance, lamenting "how

269 Ibid., 46.
270 Knize, "The Mismanagement of the National Forests."
dangerously we are threatening to push the earth out of balance.”

Bringing attention to “the developed nations” for their role in “massive deforestation,” Gore criticized the Forest Service for its subsidized roading and logging practices, as well its forestry practices, in general, linking it to “ecological tragedy.”

And in the United States, particularly in heavily logged regions like the Pacific Northwest and Alaska, there is a renewed assault on the great stretches of temperate forest that are so important to us. The statistics about forests can be deceptive too: although the United States, like several other developed nations, actually has more forested land now than it did a hundred years ago, many of the huge tracts that have been “harvested” and replanted have been converted from diverse hardwoods to a monoculture of softwood conifer forest that no longer support the species that once thrived in the woods. In national forests throughout the country, logging roads are being built in order to facilitate the more rapid logging, even clear-cutting, of public lands under contracts that require the sale of the trees at rates far below market prices. This enormous taxpayer subsidy for the deforestation of public land contributes to both the budget deficit and an ecological tragedy.

Richard Manning, in Last Stand, wrote about the logging industry in the northern Rocky Mountains, which in the late 1980s and early 1990s was liquidating timber on private lands in order to reduce tax liability, circumvent future environmental regulation (for example, potential ESA listings), and exchange slow-growing assets for high-yielding investments elsewhere.

After consuming their own timber, the corporations, particularly Champion International and Plum Creek, planned to tap timber supplies in the national forests in the northern region. In a critical tone, Manning wrote:

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272 Gore, Earth in Balance, 2.
273 Ibid., 120.
274 Ibid., 121.
275 McQuillan, “Accelerated cutting.”
Over the years, about ten million acres of trees in Montana remained in the public domain, and that is hard enough on the trees. Hard enough, because the U.S. Forest Service, charged with looking after them, really exists to cut trees. It is run by the timber beasts. In recent years, the Forest Service has made noises about reform, has been forced to reform by a string of national laws inspired by the environmental movement and by the demand for more recreational use of the forests. 276

Manning went on to ridicule the agency’s woodsy public image by focusing upon the issue of production, arguing that “People think of the Forest Service as a sort of collection of overgrown Boy Scouts, rangers sheltering trees, flowers, and Bambi from errant campfires and carelessly flicked butts, the prototypical Smoky Bears. In the West, though, where most of its domain lies, it is difficult to consider the Forest Service as anything but a branch of the timber industry.” Explicating upon the Forest Service’s successful political efforts to institute clear cuts (in NFMA), Manning portrayed a geography of destruction as seen from the air:

From the Cessna as we flew that day, we could see all of this history written on the hills of Fish Creek, giant clearcuts, some twenty years old, some with no new trees, splotched across the hills. Even more striking than the clearcuts, however, was a landscape sewn together by roads.... The hills stood terraced with roads like the decks of a pyramid, roads that wind around the hills like a peel spiraling round an apple, cut and cored. Cut and fill operations these roads are called, cats and graders biting gouges straight out of the side of a hill and laying the gravel in swaths across draws. Then the log trucks roll on this new bed of grit, sand and dust.277

This book received a considerable popularity, bringing further attention to the conflict east of the Cascades. The voices of criticism were many — including

276 Manning, Last Stand, 46.
277 Ibid., 67.
those who would soon control the executive branch — and by 1992, the Forest Service was not only severely constrained by the courts, but potentially faced further erosion of its agency by the legislative and executive branches as well.

Concluding Remarks

Interviewed in the 1980s, John McGuire, who had been Forest Service Chief in the 1970s, said that all organizations pursue the objectives of survival, growth, and autonomy. By the late 1980s, from the perspective of the Forest Service, all three of these objectives were imperiled, yet it seemed unable to change direction in the face of political pressure.

Politics to the Forest Service meant pleasing everyone — everyone with compelling political demands — or, at the very least, raising no unmanageable political ire. (Ironically, in attempting to raise no ire, it did just that, and from all sides.) That approach was not to change, but a shift in decision-making was in process, encouraged especially by the court mandated owl plan. The plan, itself a political document, would signify a shift of land allocation authority to the authors of the science being employed. This science, itself, would be a political product.

278 Hirt, Conspiracy, 44.
279 This political interpretation poses an interesting question. Having evolved to an overt, by-the-whim political calculus, Utilitarianism, as manifested by the Forest Service, mutated yet another step when political utility maximization came to be expressed in negative terms. The favored policy became "that which displeases the least," particularly in the Appropriations Committee.
Chapter 5
Big Science: The Synthetic Discourses of Landscape Ecology and Conservation Biology

Big Science, Hallelujah!
— Laurie Anderson
Big Science (record album)

By the late 1980s, the Forest Service had lost credibility as a "can do" agency, able to manage the national forests competently and coherently. To get its credibility back, it would have to demonstrate a straightforward, rationale, which it sought in a science-based framework for decision-making. The Forest Service would have to find a new way to work the credibility of science into policy — specific enough to meet the requirements of the environmental laws, and general enough to regain lost political acceptability. The agency was able to turn to recently formed disciplines synthesized exactly for the purposes of managing large areas of land — particularly conservation biology and landscape ecology.

Landscape ecology and conservation biology played a central role in the construction of forest policy on all federal (and many state) lands, particularly in the Pacific Northwest; in the late 1980s, when court injunctions began to shut down logging on national forests over the spotted owl, land agency researchers used the language of landscape ecology and conservation biology in attempts to meet the scientific requirements of the law.²⁸⁰ In this chapter, I will trace the evolution of landscape ecology and conservation biology, the

²⁸⁰ The Interagency Science Team's Conservation Strategy and the Forest Ecosystem Management Assessment Team's Forest Ecosystem Management provide good examples of this synthesis.

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language of which came to shape the political conflict during the demise of the Forest Service, and which the agency would eventually use to craft its Ecosystem Management. I also will discuss the creation of "New Forestry" management principles — a synthesis of landscape ecology and conservation biology applied to forestry — which Forest Service researchers created and built into ecosystem management. In tracing these "discourses," I will describe some of the language and concepts that came to be politically important in the old growth conflict.

Scienceism

During the late 1950s and early 1960s, while politicians were creating highly politicized science programs, the Forest Service promoted its own scientific-imbued "intensive management."281 But intensive management’s acceptability had deteriorated significantly by the late 1960s and clearcut logging had become a political problem. Science would become part of the solution (as it had been part of the intensive management solution to predicted timber famine). In the environmental legislation of the 1960s and 70s that forced forest reform management -- science would play a leading role. The National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), and the National Forest Management Act (NFMA) all imposed

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281 Since the late 1950s, when television first became a major force in politics, science, as a general and vague signifier, has held an esteemed position in American politics. After the Soviet Union’s launching of Sputnik in 1957, politicians began to speak of a "missile-gap," preparing the political environment for the expensive and well-published space program, culminating in NASA’s "space spectaculars." Heath, Decade of Disillusionment, 97. John Kennedy, recently elected to president, would waste no time "getting a man to the moon," telling the world: "No single project in this period will be more impressive to mankind." Kennedy in Heath, Decade of Disillusionment, 97. Scientists and technicians would find the way.
planning structures that required scientific analysis from diverse fields (especially fields related to biology and economics): the ESA with its species consideration language, the NFMA, with its multiple-use consideration language, the NEPA with its call for interdisciplinary scientific teams, all call upon scientists to get together and make decisions regarding land management.\textsuperscript{282}

Through these laws, Congress forced the Forest Service to expand its scientific vision from logging and its effects upon watersheds, charismatic wildlife, and future trees to consideration of a wider array of values -- especially a wider range of wildlife (plants and animals). To gain the information necessary to write forest plans and environmental impact statements, the agency would have to allocate resources to researching new questions -- new hypotheses -- often working through universities in cooperative grant agreements.\textsuperscript{283}

At the same time, university and government researchers (often one and the same) were expanding their capabilities with the aid of advancing instrumentation and computer technologies, allowing for progressively more powerful measurement and modeling methods, making questions approachable that were previously unanswerable (or unknown). Using satellite technology (for instance, through the LANDSAT program), scientists could assess huge areas, while using electron microscopes, they could see entities once too small for the human eye. Ecologists and biologists took

\textsuperscript{283} U.S.D.A, Forest Service, Forests for America's Future, 5.
advantage of this technology to develop various models, and ecology as a field flourished.

As research progressed, several scientists became aware of the effects of ongoing environmental degradation, particularly extinction, and many began to engage in politics or research pertaining to political questions.\(^{284}\) In the early 1980s, an overtly political scientific community began to conglomerate and eventually formed the "disciplines" of landscape ecology and conservation biology to influence land-use policy.\(^{285}\)

**Landscape Ecology**

Landscape ecology is a "branch of modern ecology that deals with the interrelationship between man and his open and built-up landscapes."\(^{286}\) It is a young discourse, and since its inception in the 1970s in Europe to its adoption by researchers and land-use planners in the United States in the mid-1980s, it has undergone significant change. It is a practice-oriented discourse including an interdisciplinary mixture of geography, regional science and planning, and ecology, with an eclectic theoretical background.\(^{287}\) According to Naveh, by the 1980s, this discipline was "viewed in Europe as the scientific basis for land and landscape planning, management, conservation, development, and reclamation. As such it has overstepped the purely natural realm of classical knowledge — the sociopsychological,

\(^{284}\) Erlich, "Extinctions." Regarding "became aware of the effects of ongoing environmental degradation": duh.

\(^{285}\) Crow, "Conservation Biology and Landscape Ecology."


\(^{287}\) Ibid., 3.
economic, geographic, and cultural sciences connected with modern land uses." 288 Most of the earlier, theoretical work came out of Europe, where "as early as 1939, while studying problems of land use and development in East Africa, [German biogeographer Ed Kroll] coined the term 'landscape ecology,' realizing its great potential in the aerial photographic interpretation of landscapes. He hoped for a closer collaboration between geographers and ecologists, from which a unified earth and life research might develop -- a new 'ecoscience.'" 289

Since its inception, the discourse was interdisciplinary, with wide aspirations of attaining a unified super theory of development. According to Naveh, "landscape ecology had its roots in Central and Eastern Europe, where biogeographers viewed the landscape not just as an aesthetic asset (as done by most landscape architects) or as part of the physical environment (as by most geographers), but as the total spatial and visual entity of human living space, integrating the geosphere with the biosphere and the noospheric man-made artifacts." 290

During this stage, the "conceptual and epistemological framework" of landscape ecology derived from three "closely connected scientific theories": "general systems theory," dealing with the concept of "reality as an integrated hierarchy of organization of matter and energy"; "biocybernetics," the "science of interaction systems," which explained the "regulation" of flows of matter and energy within and between biological systems through positive

288 Ibid., 21.
289 Ibid., 4
290 Ibid., 21.
("deviation amplifying") and negative ("deviation-counteracting") feedback; and, "ecosystemology," a theory focusing on the idea of a "Total Human Ecosystem (THE)," an ecosystem that includes humans and our landscape altering practices as well as our artifacts, as "the highest level of ecological integration with the ecosphere as its concrete space-time-defined global landscape entity."291

Several of the concepts imbedded within this "framework" endured through the development of landscape ecology, for instance, the idea of "holism," which the field appropriated from the work of German General Smuts (1920s).292 Holism, from the perspective of the new landscape ecologists, was the idea that, on a metaphysical level, "the whole is more than the sum of its parts,"293 and on a practical level, researchers and planners must consider ecological problems in a context larger (spatially and temporally) than the organismic and niche level. Central to this emphasis is the idea of hierarchy, not merely a "order of rank on a linear scale or ladder," but, rather, like "a living tree" — a multilevel, stratified, outbranching pattern of an organizational system, branching into subsystems that branch into subsystems of lower order, and so on: a structure encapsulating substructures,

291 Ibid., 26.
292 Smuts' development of the idea of holism was a metaphysical project, concerned with reconciling the general with the specific in a non-mechanistic explanation: "This character of 'wholeness' meets us everywhere and points to something fundamental in the universe. Holism is the term here coined for this fundamental factor operative towards the creation of wholes in the universe. This character is both general and specific or concrete...." Smuts, Holism and Evolution, 86. "This is a universe of whole-making. The explanation of Nature can therefore not be purely mechanical." Ibid., 87. Holism according to Smuts, is itself, creative: "As holism is a process of creative synthesis, the resulting wholes are not static but dynamic, evolutionary, creative." Ibid., 87.
293 Naveh, Landscape Ecology, 50. This varies from the concept of Smuts, who wrote that "in fact, the whole is not something additional to the parts, but is just the parts in their synthesis." Holism and Evolution,, 87.
and so on; a process activating subprocesses, and so on. Naveh elaborated upon the idea of holism with in-depth references to the idea of the holon — “a stable, integrated structure equipped with self-regulatory devices and enjoying a considerable degree of autonomy or self-government,” yet part of a larger system known as a “holarchy.”

Other ideas discussed during this time virtually disappeared soon after, though sometimes they appeared in other guises. For instance, Naveh attempted to link “complexity theory” to landscape ecology, writing on the “self-organizing” characteristics of systems far from equilibrium, as found in the works of Iliya Prigogine (Nobel Prize winner for chemistry and his work on thermodynamic systems). As landscape ecology matured, it de-emphasized these ideas, but, in mutated form, some of them would later emerge as the idea of “disturbance.” Likewise, Naveh emphasized the concept that landscapes include human processes, which increasingly are ecologically dominant, and, in the “Total Human Ecosystem” concept, should be treated as the culmination of evolution — a combination of biological processes and processes emerging from the human mind. While some of the theoretical terminology dropped from the discourse, the idea that humans were part of the ecosystem persisted.

Research methods consisted primarily of variations of “remote sensing,” and related classification and cartographic systems (including overlay

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294 Ibid., 51.
295 Ibid., 51. Naveh refers to the work of Arthur Koestler, among others.
296 Ibid., 62-66.
297 Ibid., 84.
mapping and eventually geographical information systems, which built upon Ian MacHarg's *Design with Nature*, 1968\(^{298}\), as well as "simulation" and "interpretation models" (models for interpreting the effects of simulation models) and "capability analysis."

Until the 1980s, "the term ‘landscape ecology’ [was] virtually absent from North America,"\(^{299}\) but by the mid-1980s, discussions under the landscape ecology rubric proliferated in the U.S., where, by the early-1990s, the most conspicuous adherents of landscape ecology had abandoned its modesty concerning uncertainty, as well as heartily embracing the power of humanity to direct and control its ecosystems. In the preface of the edited *Land Mosaics*, E. O. Wilson, the well-known population ecologist and prolific writer on biodiversity wrote: "In *Land Mosaics*, [Richard] Forman joyously embraces the human-altered environment and proposes that its living part can be improved by use of the best principles of environmental biology."\(^{300}\)

By the time of New Perspectives' inception, the discourse was in transition. Until the later 1980s, landscape ecology had explored and articulated a diverse body of theoretical work, as well as constructing a new methodology and method, but by the early 1990s it had approximated its present status as an integrated research framework, de-emphasizing theoretical debate in favor of an integrated methodological structure – a "spatial language" for researchers, land planners and managers.\(^{301}\) According

\(^{298}\) McHarg, *Design with Nature*.


\(^{300}\) Wilson, "Preface," xiii.

\(^{301}\) Forman and Godron, "*Landscape Ecology,*" 1986.

to Richard Forman, the most prolific writer and editor of landscape ecology textbooks in the United States, “the language of landscape ecology” would “make the [planning] process gel.” Forman reduced the landscape to a system of “patches, corridors, and a background matrix,” each with “simple familiar characteristics.” These “characteristics” were simply a matter of geometry: “Patches are large and small, rounded or elongated, and smooth or lobed. Corridors are wide or narrow, straight or curvy, and connected or with gaps. The matrix is continuous or subdivided, extensive or limited, and contracting or expanding.” The language of this descriptive framework implied that “patches” were privileged or special in an analytical sense – connected by corridors -- against a “background” matrix.302 Necessarily, the cartographer would define the patch in terms of some measurable, spatial trait, for instance, the existence of some tree species or some age or stand structure.303 The background matrix would represent those lands where the trait did not exist. Yet, the background matrix was neither inconsequential nor trivial; historically, it constituted the “original forest matrix,” which was carved into patches and corridors by logging and other forms of human disturbance.304 In the present, it constituted the conceptual, non-special base in which patches were situated, and, in theory, its structure and composition affected wildlife (flora and fauna) that resided in patches and moved between them. By 1994, after the Forest Service and other agencies had appropriated landscape ecology into major planning projects (particularly, through the Interagency Science Committee, the Scientific Panel, the Scientific Assessment Team, and Federal Ecosystem Management Assessment Team), Forman stated, “The matrix has

303 This “designation” would necessarily be a “political construction”; matrices, patches, and corridors were zones.
304 By the time of the model building, matrix lands had become background.
the greatest control over landscape and regional dynamics." Thus, defining the matrix — and the patches and corridors situated within — was a matter of great concern because the definition had implications for managing the corresponding land areas.

By the early 1990s, Forman had distilled the diverse theoretical works of the early landscape ecology into the "Patch-Corridor-Matrix Model," emphasizing "spatial structures," particularly "mosaics." According to Forman, "mosaic pattern is the central feature of land, and ecological structure, function, and change of the mosaic is the central paradigm of the book. Spatial arrangement matters. It is the structure of a landscape or region. It determines the movements and flows between local ecosystems, and across the mosaic. It changes in form over time." Forman was rather comprehensive with his spatial description system, claiming that "mosaic patterns are found at all spatial scales, from submicroscopic to the planet and universe. Land mosaics, however, were at the "human scale," measured in kilometers to hundreds, even thousands, of kilometers," including "landscapes, regions, and continents." A landscape, in turn, was "a mosaic where the mix of local ecosystems or land uses is repeated in similar form over a kilometers-wide area."

According to Forman, this language shaped the perspectives of all those involved in the processes of planning and management — the political

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305 Forman, Land Mosaics
306 Ibid., xvi.
307 Ibid., 5.
308 Ibid., 13.
processes of allocation: “Ecologists, hydrologists, attorneys, conservationists, elected officials, transportation engineers, foresters, geographers, and others understand and share this spatial language.” But, Forman did not discuss the process of attributing significance or meaning to each of these geometrical spaces, presumably leaving to politics the question of what landscape entity or entities the landscape ecologists would use — presence of owl habitat, presence of certain types of timber stands, riparian attributes, and so forth. Still, landscape ecology provided a language, establishing general organizing principles for designating patches and corridors. The concept of mosaics requires heterogeneity, “where objects are aggregated, forming distinct boundaries,” resulting from “thermo-dynamically open conditions, with solar energy creating and maintaining structure.” Mechanisms that create this pattern include “substrate heterogeneity,” “natural disturbance,” and human activity. Linking the concepts of spatial structure and function (or processes) is the idea that “form or structure, i.e., what we see today, was produced by flows yesterday.” The effects of forces are determined by scale, as described in the “space time principle,” which simply states that “most short duration changes affect a small area, and most long-term changes affect a large area.”

Another of landscape ecology’s linkages between spatial structure and ecological function is the “size effect on biodiversity,” a relationship that researchers have attempted to elucidate with “island biogeography theory.”

309 Ibid., 442-43.
310 Ibid., 5.
311 Ibid., 5.
312 Ibid., 8.
Island biogeography theory, which has focused on bird populations on islands, relies on two major principles: the principle of “species-area curves,” suggests that species number is positively correlated with habitat size, qualified by a “minimum area point,” where the rate of increase in species diminishes — a sort of saturation point — as area continues to increase (linearly); the “equilibrium theory” (developed by E.O. Wilson) simply states that islands and island-like mainland areas will exhibit an equilibrium point between extinctions and colonization, mediated by landscape features like the “species source” — the mainland — and “stepping stones,” intermediary islands between the young, colonizing island and the mainland.313

Researchers such as Richard Harris have applied island biogeography theory to mainland conditions where habitat such as a forested mountain surrounded by desert is isolated and thereby displays island-like features. In relationship to the patch-corridor-matrix theory, small patches are analogous to islands with large patches being analogous to mainland, with corridors providing passage through matrix lands — large, relatively inhospitable areas. Within patches, species differentiate according to their preference for “interior” or “edge” conditions. Forman writes that “larger patches have more species than smaller patches, and area is more important than isolation, patch age, and many other variables in predicting species number. Exceptions often result from the presence of another variable covering with area, or where no specialist interior species are present. The prevalence of edge species in small patches, and interior species in the patch interior or core, is commonly emphasized.”314

313 Ibid., 55-58.
314 Ibid., 62.
In this context, Forman and his contemporaries shaped landscape ecology to emphasize methodology and methods, which had been developed and enhanced in the 1980s alongside recent advances in computer technology. In terms of “experiments and observations,” landscape ecology concerned itself with: “measurements of natural patterns,” which overlap with “measurements of anthropogenic patterns”; “landscape-scale experiments,” wherein “studies evaluating the ecological effects of forest patch size, using both pretreatment and untreated controls, are the best known and most ambitious to date”; and, “micro-scale experiments,” wherein “experiments at a fine spatial scale are especially useful, because replicates are better controlled, and time, energy, and money budgets are more feasible,” and “experimental results are then carefully extrapolated to the landscape or regional scale, where some results apply but others do not.”\textsuperscript{315} Other methodologies and methods included “modeling, analytic, and statistical approaches,” such as “spatial modeling,” the use of geographical information systems, “parametric studies,” and “spatial statistics.” Finally, landscape ecologists have further developed remote sensing techniques, as “images from satellites have revolutionized our perception and approaches to understanding landscapes and regions,” and thus, “a whole region can be examined in a single image,” and “images showing clear patterns of interdigitating landscapes, as well as ecosystems and land uses within landscapes are widely available.”\textsuperscript{316} As well, infrared technologies, other spectral wavelength techniques, computer technologies, and radiotracking

\textsuperscript{315} Ibid., 31-33.
\textsuperscript{316} Ibid., 35.
techniques have increased the methodological toolbox of landscape ecology.\textsuperscript{317}

\textbf{Conservation Biology.}

In August, 1988, Jack Ward Thomas and Hal Salwasser, both of whom were soon to play major roles in the construction of Forest Service owl policy (Thomas as leader of the Interagency Science Team and Salwasser as head of the New Perspectives Program), co-presented a paper before the Annual Meeting of the Society for Conservation Biology. In their paper, entitled “Bringing Conservation Biology into a Position of Influence in Natural Resource Management,” these two bureaucrats claimed to be “conservation biologists when conservation biology wasn’t cool.” Now they offered advice on “how conservation biologists can become more effective in influencing land and wildlife management.”\textsuperscript{318} According to the team:

Maintaining diversity is a philosophy and a management goal whose time may be at hand in the field of land management — at least in the United States. This discussion is aimed at helping conservation biologists be more effective in bringing their expertise to bear on natural resource management in the United States.

The stage is set. Capable players are at hand. The script outline has been prepared. Laws governing federal land management and other activities have gradually evolved, albeit through circuitous routes, to the point where conservation of biodiversity is recognized as a management goal.\textsuperscript{319}

\textsuperscript{317} Ibid., 35.
\textsuperscript{318} Thomas and Salwasser, “Bringing Conservation Biology,” 124.
\textsuperscript{319} Ibid., 124.
Thomas and Salwasser, in language speaking to impending crisis (biological as well as bureaucratic), urged the society members to "hurry"; "management agencies need help, and the time is running out," and "conservation biologists must help managers, and themselves, focus on high priority issues." Conservation biologists, the two bureaucrats argued, must learn to maneuver within the political realm of federal wildlife management: "they must learn and practice effective biopolitical techniques in addition to good science and management — to gain influence, change minds, marshal resources of people and money, and make things happen." Both Thomas and Salwasser offered a "welcome" to conservation biologists as "new players with a new mission in the natural resource management game," encouraging them to join in the political struggle around wildlife preservation on federal lands.

Conservation biologists, though virtually unheard of to the general public, believed themselves to be in a crucial role, because they were bringing their knowledge to the problem of conserving species and retarding the effects of untimely extinction. To save species, conservation biology would apply itself to providing "principles and tools for preserving biological diversity." It would be a prescriptive discourse, and because of its focus upon the urgent problem of extinction, it would be a "crisis discipline." In this way, Soule argued, conservation biology "differs from most other biological sciences."

320 Ibid., 124.
321 Ibid., 124.
322 Lovejoy, "Foreward," ix. "Untimely" is a loaded and loadable term, so to speak; in much of the conservation biology writing it directly referenced humans.
323 Ibid.
324 Ibid.
325 Ibid.
Because time was critical, conservation biologists would have to take exception to the normal standards for applying science to public policy. Uncertainty would be unavoidable. Soulé stated:

In crisis disciplines, one must act before knowing all the facts; crisis disciplines are thus a mixture of science and art, and their pursuit requires intuition as well as information. A conservation biologist may have to make decisions or recommendations about design and management before he or she is completely comfortable with the theoretical and empirical bases of the analysis. Tolerating uncertainty is often necessary.326

Like landscape ecology, conservation biology would employ a mixture of theory, experimentation, modeling, and practice.327 According to Michael Soulé, its most visible proponent, conservation biology is "a new stage in the application of science to conservation problems, [that] addresses the biology of species, communities, and ecosystems that are perturbed either directly or indirectly, by human activities or other agents."328

According to its own texts, it was a young, interdisciplinary discourse synthesizing various scientific branches. Among the ranks of conservation biology were population biologists, "ecologists, physiologists, behaviorists, and all other biologists concerned with the functioning of organisms in natural and artificial environments," as well as "taxonomists and systematists."329

326 Ibid.
327 Soulé, "What is Conservation Biology?" 727.
328 Ibid.
In May, 1985, the Society for Conservation Biology “originated... at the conclusion of the Second Conference on Conservation Biology.” Two years later, the Society published the first edition of its journal, Conservation Biology.\footnote{Soulé, “History,” 4.} According to Michael Soulé, Conservation Biology relies upon four “functional” and four “normative postulates.” While all of the functional maxims concern the processes and functions of ecology, two of them refer directly to spatial phenomenon and demonstrate similarities with principles enunciated in the landscape ecology literature, while the other two demonstrate the differences as well as similarities between conservation biology and landscape ecology.

The first of these postulates, “the evolutionary postulate” states that “many of the species that constitute natural communities are the products of coevolutionary processes”\footnote{Soulé, “What is Conservation Biology?” 729.} This postulate makes apparent one of the more significant differences as well as one of the similarities between conservation biology and landscape ecology. Restated, this postulate means that “the structure, function, and stability of coevolved, natural communities differ significantly from those of unnatural or synthetic communities.” Non-human systems are different than human systems. According to Soulé, “Corollaries” of this postulate include: “species are interdependent”; “many species are highly specialized”; “extinctions of keystone species can have long-range consequences”; and “introductions of generalists may reduce diversity.”\footnote{Ibid., 729-730.}
Apparent in these corollaries, particularly the first, is the "organicist" outlook, which according to Bryan Norton, was a diagnostic viewpoint. According to Norton: "Conservation biologists must reject the role of biological mechanics and embrace organicism. They must insist that whole systems of nature can be judged 'healthy' or 'ill'." Soule stated that the first postulate "does not necessarily rely on deterministic factors," since population systems must be holistically studied. This emphasis on "holism" permeates the conservation biology, demonstrating another likeness to landscape ecology. According to Soule:

Conservation biology tends to be holistic, in two senses of the word. First, many conservation biologists, including many wildlife specialists, assume that ecological and evolutionary processes must be studied at their own macroscopic levels and that reductionism alone cannot lead to explanations of community and ecosystem processes... [second] is the assumption that multidisciplinary approaches will ultimately be most fruitful.

The second functional postulate "concerns the scale of ecological processes," reflecting commonalties between conservation biology and landscape ecology. According to Soule: "Many, if not all, ecological processes have thresholds below and above which they become discontinuous, chaotic, or suspended," and therefore are "interrupted or fail altogether where the system is too small." Two "major assumptions... underlie this postulate: The temporal continuity of habitats, and successional stages depend on size ... [and] outbursts reduce diversity." This postulate is

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333 Ibid., 728.
334 Ibid.
335 Ibid.
336 Ibid., 729.
337 Ibid.
338 Ibid.
almost identical to the language of landscape ecology that deals with the “size effect on biodiversity,” and indeed, “island biogeography” is an important part of conservation biology. In an earlier discussion of “community ecology,” Soule and Wilcox make reference to patches and patchiness — terminology familiar to the landscape ecology literature: “The world is patchy and patches come and go.”

A postulate with directly political connotations is that nature reserves are inherently disequilibrial for large, rare organisms. This postulate reflects, again, island biogeographic theory, as well as highlighting one of the main foci for conservation biology, which is the design, maintenance, and assessment of “nature reserves.” According to Soule and Wilcox:

When considering the preservation of a particular biota, a system of nature reserves can be described by reference to three features: number of reserves, size of reserves, and density (or proximity) or reserves. With regard to number and size, some biogeographers have argued that reserves should be large and not necessarily numerous; others have argued for many, smaller reserves. Nevertheless, all agree that the best solution from the biogeographical standpoint is many, large reserves.

This issue was central in the spotted owl debate and was discussed in-depth in both the ISC Strategy and the Gang of Four report, which in part, helped define the particulars of reserve needs for the owl, generally considered to be mutually exclusive to timber harvesting.

340 Soule and Wilcox, Conservation Biology, 5.
341 Ibid., 4.
The last of conservation biology’s functional postulates (the third in Soule’s writings) “concerns the scale of population phenomena.”342 According to Soule: “Genetic and demographic processes have thresholds below which nonadaptive, random forces begin to prevail over adaptive, deterministic forces within populations.”343 The main point here “is that the probability of survival of a local population is a positive function of its size.”344 Thus, the corollaries include the maxim that below a certain population size... the probability of extinction from random demographic events increases steeply.”345 This statement reflects the literature from landscape ecology concerning perturbations and fluctuations.346 Other corollaries include the statement that, “populations of outbreeding organisms will suffer a chronic loss of fitness from inbreeding depression as effective population sizes of less than 50 to 100.”347 Also, “genetic drift in small populations... will cause a progressive loss of genetic variation,” reducing “immediate fitness.”348 Finally, “natural selection will be less effective in small populations because of genetic drift and the loss of potentially adaptive genetic variation.”349

The study of population was a major part of conservation biology. Central to this project was the concept of “minimum viable populations,” which concerns itself with “criteria for successful preservation at the population

343 Ibid.
344 Ibid.
345 Ibid.
346 Ibid.
347 Ibid.
348 Ibid.
349 Ibid.
level [and] various methods... for determining the population sizes and their area requirements to meet these criteria."\textsuperscript{350} Soulé phrased the question the question: "What are the minimum conditions for the long-term persistence and adaptation of a species or population in a given place?"\textsuperscript{351}

The "'viable population problem' is very young," emerging in the 1970s and 80s amidst political turmoil concerning endangered and threatened species, in the context of law, and species extinction in general, and "confusion" and ambiguity characterize the debate. Yet, the questions conservation biologists were posing concerning population viability of the northern spotted owl and other old-growth associated species would soon be important in the political dialogue concerning the northern spotted owl.\textsuperscript{352}

Because the idea of extinction is so central to the political debate regarding preservation and land-use policy, "viability is now a \textit{cause célèbre}."\textsuperscript{353} Researchers, attempting to define "minimum conditions" for viability, focus upon habitat, which in turn, depends upon land base. "If the likelihood of survival depends on both population size and time, then what degree of persistence constitutes preservation and how much habitat is necessary to achieve such preservation? This is the essence of the minimum viable population problem and the central question facing conservationists.

\textsuperscript{350} Shaffer, "Minimum Population Sizes," 131. Central to the concept of minimum viable populations is the problem of extinction. Conservation biologist Mark Shaffer studied sources of extinction, including "demographic stochasticity," "environmental stochasticity," "natural catastrophes" (summoning the ideas of perturbations and fluctuations) and "genetic stochasticity."

\textsuperscript{351} Soulé, ed., "Viable Populations for Conservation."

\textsuperscript{352} Interagency Scientific Committee, \textit{Conservation Strategy for the Northern Spotted Owl}.

\textsuperscript{353} Soulé, ed., "Viable Populations for Conservation.

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today."³⁵⁴ Determining such conditions has direct political ramifications and involves political negotiation.

Furthermore, scientists as stakeholders must define viability in terms of probability -- due to uncertainties resulting not only from stochastic events, but from methodological structure (for instance, the difference between modeled and empirical realities) -- and deciding acceptable levels of confidence is a matter of subjective choice to be decided through political process.³⁵⁵ Another topic of debate regards the propriety of designating "minimal" conditions. "Some conservationists argue that the term is tactically self-defeating and ethically offensive. Their reasoning is that the job of conservation biologists should be to recommend or provide for more than just the minimum number or distribution of a species. ... They should prescribe to managers and policy makers the conditions for robust and bountiful populations."³⁵⁶

Shaffer sums up the difficult, political nature of the maintaining species:

There are no easy answers to the problem of defining successful preservation or what really constitutes endangerment. The one certainty is that the issue is not strictly a biological or scientific matter. Of all the issues facing the conservation of biological diversity, the definition of preservation itself, in quantitative terms subject to objective evaluation is both the most crucial and least addressed.³⁵⁷

³⁵⁴ Shaffer, "Minimum Viable Populations," 70.
³⁵⁵ An interesting question arises concerning whether or not policy makers, who are often unfamiliar with the reasoning involved with scientific process, understand the difference between a straightforward assurance of viability and a less-tangible, if acceptable "risk." Soulé writes that "whatever jargon we choose to adopt, the point is that there is no single value or 'magic number' that has universal validity." Soulé, "History," 5.
³⁵⁶ Ibid., 4.
Underlying the “functional” substance of conservation biology — as a text and a practice — are its “normative” postulates, which reflect conservation biology’s bias towards natural systems (versus human constructed or altered systems), or in Soulé’s words, a “preference for nature over artifice, for wilderness over gardens.” First is the proposition that “diversity of organisms is good,” with the corollary that “the untimely extinction of populations and species is bad.” Second is the argument that “ecological complexity is good,” extending value to “habitat diversity and complex ecological processes.” Third is the argument that “evolution is good,” as is its “continuity, and finally, “biotic diversity has intrinsic value.” Taken as a whole, the postulates more or less enunciate Conservation Biology’s primary goal: to preserve “biodiversity,” a concept central to the rhetoric around land policy.

People have used the term “biodiversity” (sometimes referred to as “biological diversity”) in various ways. From the microbial scale to the “landscape,” biodiversity can refer to “functional diversity” (the diversity of ecological processes), which determines and is determined by “structural diversity” (diversity of spatial configurations), all of which support the diversity of species composition — the primary focus of the ESA. As a principle in political discourse, players must pay attention to the idea, and

359 Ibid., 730.
360 Ibid., 730.
361 Ibid., 731. This postulate is significantly different than the others insofar as it asserts an “intrinsic” value, or in other words, a priori good. This assertion implies a certainty or knowledge of such prior value, which would logically be “a priori knowledge,” claims to which are necessary to religion. See Norton, Toward Unity, 234-5 for a brief discussion on this distinction.
many find it profitable to shape its meaning in political discourse. Thus, biologists, the most “credible” and technically agile subjects, are obvious recipients of political power. David Takacs interviewed Soule, Ehrenfeld, and other prominent conservation biologists for his doctoral dissertation on the “meaning of biodiversity.” According to Takacs:

While they whip up public concern over the diminution of biodiversity, biologists simultaneously garner the resources that go hand in hand with increased concern. Biodiversity is a formidable constituency to represent: she who represents it gains quite a bit of power in a society that cares to preserve it. Biologists, who have been called upon to provide “facts” about the natural world, now clear space to speak of nature’s “values.”

The relationship between these biologists of power and national forest politics would become clear when the courts and Congress began ordering and commissioning teams to produce decision-making frameworks -- as well as sets of management options -- that politicians could use to allocate the national forests and other public lands as they existed in the late 1980s and early 1990s.

Just Gettin’ Through: the Ambiguous Adaptive Management

Scientists, like other political players, often disagree about most issues having bearing upon their work -- from the working out of methodologies and methods, to the interpretation of data and constructing of conclusions. This type of conflict is especially apparent in the “applied sciences,” where groups of scientists (or groups including scientists) are producing scientific

362 Takacs, Finding Meaning, 6.
363 Kuhn, Scientific Revolutions; Walters, Adaptive Management.
statements for use in management situations. In the politics regarding old-growth forests and associated species, players from industry, the Forest Service, and environmental groups frequently portrayed these management situations as crisis situations.\textsuperscript{364}

The political appropriation of science (in a general sense — as a set of discourses) requires a refining step. The policy maker must link the various individuals and individual teams (using specific research frameworks and facilities to do their own work) — the “scientists” — with statements that will justify management decisions. This linkage involves synthesizing the positions of several individuals who may or may not agree on issues concerning methodology, formulation of questions and hypotheses, interpretation of data, and so forth. Out of group of particular comes a collective declarative statement, usually written as if by one author. The linking process must somehow respond (adeptly or miserably) to the various levels of conflict between official knowledge producers, while responding to the stress resulting from the perceived crisis situation. The process must also endure various forms of critique and insult, because, when management decisions depend upon the resulting scientific statements, political players try in various ways to influence the science. In the case of the politicized scientific discourse around the spotted owl issue, most of the science — particularly that under the rubrics of landscape ecology and conservation biology — consisted of new methodologies and methods, particularly

\textsuperscript{364} Walters, \textit{Adaptive Management}. The portrayal, per se, especially in the context of public agencies dealing with “problems” (of which crises are a significant subset) is by definition political. See Edelman, \textit{Constructing the Political Spectacle}. Also, see Gramsci, “Prison Notebooks,” in \textit{The Modern Prince}, for a theoretical discussion of why social production is political.

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modeling, and confronted new problems, themselves emerging from an
unpredictable political discourse.\textsuperscript{365} Knowledge on the owl was new and data
sparse and difficult to acquire, yet research objectives required long-term
projections on issues like "genetic viability." Uncertainty (acknowledged or
not) would determine any decision made regarding owl management (and,
ultimately, management of several other "old-growth species"), and agency
scientists would produce them in an environment of internal and external
conflict and negotiation.

In 1986, as the owl issue was becoming well known in the already national
debate on old-growth forests, Carl Walters outlined a process to deal with
these research issues. For several years, Walters had been working with a
group called the "International Institute for Applied Systems Analysis,"
which had been formed in 1972, at a time when systems analysis scholars and
practitioners were appropriating newly available computer capabilities to
their modeling. In the mid-70s, C. S. Hollings, long-time colleague of
Walters and director of the Institute, responding to failures of previous
resource management approaches, had coined the phrase "adaptive
management," an idea that Walters proceeded to develop.\textsuperscript{366}

The idea was timely, because by the mid-1980s, many researchers and
managers had become disillusioned by the unsatisfactory results of their
modeling -- upon which public agencies had come to depend -- and were
becoming aware of sources of uncertainty they had not earlier perceived.
According to Walters, "The model building has not been particularly

\textsuperscript{365} Walters, \textit{Adaptive Management}, Ch. 11.
\textsuperscript{366} Lee, \textit{Compass and Gyroscope}, 54.
successful, and it keeps drawing attention to key uncertainties that are not being resolved through normal techniques of scientific investigation.\textsuperscript{367}

Much of the uncertainties arose as researchers began to perceive new levels of complexity in the natural systems they were studying. According to Walters, these uncertainties arose on three levels. First, “certain inputs or disturbances that occur rather regularly or frequently over time will generate unpredictable and uncontrollable change” — which he referred to as “background noise.”\textsuperscript{368} Second, was “statistical or parametric uncertainty” — mainly regarding the conceptual instruments researchers were using — and third was “basic structural uncertainty about even what variables to consider.”\textsuperscript{369}

To deal with these uncertainties yet move ahead with management — which agencies would inevitably continue to do — Walters recommended “experimental” management, whereby managers would learn from experience. According to Walters:

\begin{quote}
We keep running up against questions that only hard experience can answer, and a basic issue becomes whether to pursue management policies that will deliberately enhance that experience. Such policies would represent a radical departure from traditional prescriptions about how to deal with uncertainty, namely to proceed with great caution or to act as though there were no uncertainty in hopes that mistakes and opportunities will automatically reveal themselves.
\end{quote}

\textsuperscript{367} Walters, \textit{Adaptive Management}, vii.
\textsuperscript{368} Ibid., 162.
\textsuperscript{369} Ibid., 162.
My major conclusion is that actively adaptive, probing deliberately experimental polices should indeed be a basic part of renewable resource management.370

Walters and his team devised a structure for this experimental, adaptive management, which was highly dependent upon modeling as a heuristic strategy, and statistical analysis, optimization, and game playing as modeling strategies. Thus, the “design of such policies” would include “mathematical modeling to pinpoint uncertainties and generate alternative hypotheses, statistical analysis to determine how uncertainties are likely to propagate over time in relation to policy choices, and formal optimization combined with game playing to seek better probing choices.”371

But, these technical matters only provided a forum for investigation and idea generation; they did not, in and of themselves provide solutions or scientific management statements. To provide statements, participants would have to come forward and reach some sort of agreement -- a political process -- upon what should be said and done. According to Walters, “such technical developments will be of little value unless they are accompanied by progress in dealing also with the very human problems of reaching consensus by embracing uncertainty, and of reaching some balance when there is, in fact, no identifiable decision maker and policies proceed from the competitive or cooperative activities.”372 Decision-makers would have to contend with conflict, internal as well as external.

370 Ibid., vii.
371 Ibid., viii.
372 Ibid., 333.
In this process of “moving from analysis to synthesis” — or perhaps, from analyses to synthesis — Walters recommended some sub-processes (not necessarily sequential). The first was the “modeling to pinpoint uncertainties.” The second had more room for contention, insofar as it required generating predictions of future policy options (conclusions with immense political implications). This process would involve developing “a range of predictions about key policy indicators, using the alternative models and basic policy options identified during the initial modeling work.”

This exercise was designed to “gain consensus about how large is the range of future outcomes and how deep are the conflicts about which outcomes would be best.” It would be a testing of the political waters, as well as putting the participants under the stress of responsibility, in an effort to promote creative tendencies — “to engender a healthy frustration about the state of affairs. “This frustration will help later in the search for imaginative policy options, but at this stage it has the more immediate value of motivating those involved in the analysis to ‘get down to essentials’.”

The third process is the most significant object of focus for adaptive management — to reiterate and negotiate and “seek the best option,” involving a mutually inclusive process called “imaginative synthesis.” This process involves gracefully recognizing and correcting for past mistakes, discovered through the process of monitoring.

Thus, Walters and his group had devised a structure for managers — and manager-scientists, to do what they had to do anyway — act under uncertainty

373 Ibid., 335.
374 Ibid., 335.
375 Ibid., 336.
and negotiate decisions among themselves in an environment pervaded by conflict. He had also provided a justification and structure for managers — and manager scientists — to try out new ideas for management, which is exactly what Forest Service researchers could use at the time. Adaptive management could bridge the gap between management and research divisions that existed in many agencies.

New Forestry

In the 1980s, Jerry Franklin, Dave Perry, Fred Swanson, and others were working together to study old-growth forest ecosystems under the rubric of the Andrews Ecosystem Research Group. The Andrews Group, named after the Forest Service H.J. Andrews Experimental Forest near Blue River, Oregon was formed in the late 1960s as “a voluntary association of scientists” — “an interdisciplinary team representing the earth and life sciences from both field and theoretical orientations.” In the late 1980s, it included “a large outer circle of collaborators, and an inner core of 15 to 20 researchers who have provided continuity over the 20 years of the group’s existence.” According to Swanson:

The Andrews group has no formal affiliation with a university or the Forest Service, but one-third of the members are scientists and forest managers associated with the [FS] Pacific Northwest Research Station and Willamette National Forest, and two-thirds are scientists connected with Oregon State University and the University of Washington. ... Most of the funding is provided by the National Science Foundation and the U.S. Forest Service.378

376 Swanson, “The People Behind the New Forestry,” 44.
377 Ibid.
378 Ibid.
The team’s leader, Jerry Franklin, “Bloedel Professor of Ecosystem Analysis at the University of Washington, Chief Plant Ecologist for the [PNW] Research Station, and... a Bullard Fellow at Harvard,” was already well known for his role in the SAF Old-Growth Management team; the New York Times heralded him as “the nation’s foremost expert on ancient forests.”

Until the mid-1980s, Franklin had been a fairly conventional forestry researcher. In 1966, at Washington State University, he had written his doctoral dissertation, in Botany, on the “Vegetation and Soils in the Subalpine Forests of the Southern Washington Cascade Range,” and his conclusion was in line with the work of his mentor, Robert Daubenmire. Until the mid-1980s, his research concerned fairly conventional topics related to forest ecology. Titles of some of his various publications from the years 1973 to 1980 reflected this concern with conventional forestry topics: “Effects of Various Harvesting Methods on Forest Regeneration”; “Natural Vegetation of Oregon and Washington”; “Seeding Habitats of Upper-Slope Tree Species”; and “Ecological Site Classification Activities in Oregon and Washington.”

Later in his career, Franklin began to change his views on forest management, especially after observing recent “disasters” in public forestry, particularly the massive blowdown in the Bull Run river drainage in the Mount Hood National Forest (the watershed for Portland, Oregon), in 1983.

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380 Franklin, “Vegetation and Soils.”
381 Franklin and Debell, “Effects of Various Harvesting Methods.”
382 Franklin and Dryness, “Natural Vegetation of Oregon and Washington”
383 Franklin and Smith, “Seeding Habitats.”
384 Franklin, “Ecological Site Classification Activities.”
385 Franklin, “Interview.”
In 1984, he co-authored the Society of American Forester’s policy statement, “Scheduling the Harvest of Old-Growth,” which expanded the concept of multiple-use and stated flatly that allocation of old growth was a political issue, presaging later documents he would help write.\footnote{386 Society of American Foresters, \textit{Scheduling}.}

Publishing in the first issue of \textit{Landscape Ecology}, with Richard Forman, a leading American proponent of landscape ecology, and dean of the Harvard Graduate School of Design, Franklin criticized the geometry of Forest Service timber management. He observed:

The Bull Run River drainage in the Mount Hood National Forest in western Oregon provides strong evidence of the potential for catastrophic disturbance created by the checkerboard pattern. We analyzed windthrow patterns on a 37,000-ha area including the Bull Run and adjacent tracts. Major windstorms in this area in December 1973 and 1983 blew down forests of 482 ha and 899 ha, respectively. Nearly 1/2-billion board feet of timber fell in the 1983 blowdown. About 48\% of the 1973 and 81\% of the 1983 blowdowns were adjacent to existing clearcuts and roads; both are statistically significant relations.\footnote{387 Franklin and Forman, “Creating Landscape Patterns,” 14-15.}

Employing a conceptual framework based upon landscape ecology, Franklin and Forman went on to assess the Forest Service’s widespread use of a checkerboard pattern of clearcut logging. First, they built a model wherein they could measure boundary-to-area ratios corresponding to various geometrical patterns for dividing a two-dimensional square into black and white areas -- patterns such as a checkerboard or evenly divided between black and white. They treated the model as analogous to timber management in the western cascades, designating the black areas as clearcuts and the white areas as remaining patches, with various patterns signifying various “treatments.” They measured the effects of incrementally removing patch
areas (signifying clearcut logging) upon the availability of remaining patch areas in terms of "core" (or "interior") or "edge" ("boundary") patch – given a distance from the edge that defines interior patch.388

This model allowed Forman and Franklin to determine the point at which removing a patch would eliminate the last (or second to last, so on) viable patch of a certain dimension (for instance, one theoretically corresponding to a spotted owl niche). These breaking off points in the model they likened to ecological thresholds, for instance, levels where major disturbances become more likely, particularly windthrow damage. Then they discussed measurements taken from the Mount Hood Forest and found correlations between the checkerboard geometry of logging and disturbances such as landslides and the windthrows at Bull Run, though they did not elucidate the relationship between their model as it concerned interior versus edge patch and data from the national forest.389

They also found that the idealized checkerboard sequence they represented in their model did not fit the actual pattern of logging, constrained as it was by topology and road costs; adjacent squares had been cut, violating the sequence assumed in the model. While they did not test any specific hypotheses aside from possible disturbance effects of quasi-checkerboard cutting, they reviewed the literature regarding the biotic and structural effects of creating edge conditions. They concluded that, for the purposes of management, large patches would be preferable to small, all other conditions being the same. They further concluded that the Forest Service’s use of checkerboard patterns

388 Ibid.
389 Ibid.
of logging worked counter to maintaining large patches, in addition to maximizing "the high-contrast edge between primeval forest and cutover areas," and exceeding geometrical "thresholds," beyond which interior patches could not exist. Forman and Franklin suggested that the agency "reduce the emphasis on dispersing small clearcut patches," to reduce fragmentation," and "identify and reserve large patches of primeval forest in the landscape for maintenance of interior species and amenity values." According to the team, "Clearcutting generally must be avoided within the reserved patches because of the substantial vulnerability that results from placing even small cuts within a reserved tract." In addition, they argued, agencies should manage for corridors between reserved tracts. Aside from being technically informed statements regarding resource management, these were political statements, because the establishment of reserves directly signified constraints upon timber harvesting. The authors continued, "It is urgent because many current cutting programs are rapidly reducing the size of available patches."

Cognizant of the developing conflict in the politics of forest management, Franklin and his cohorts began to focus on the new objectives that later evolved into New Forestry. Franklin became convinced that large-scale ecological and political disasters resulting from past management activities would continue until public agencies instituted new forms of management and past management errors had been resolved. In 1989, he began to take

390 Ibid.
391 Ibid.
393 Franklin, "Interview."
his message to the general public. Appearing in the film, *Rage Over Trees*, released by the National Audubon Society and Turner Broadcasting System in 1989, Franklin lamented that old growth forest was disappearing faster than even Forest Service staff knew.\footnote{Franklin in *Rage Over Trees*.} Referring to (and affirming) the Wilderness Society estimations of remaining national forest old growth, Franklin appealed to the practical issue of allowing for future flexibility in forest management: “It looks like there’s a lot less old growth — real old growth — Douglas fir forests than most of us had supposed. But one logical strategy might be to try and retain most of the old growth in the larger patches. You probably want to leave these alone so that you retain your options on those for a longer time period.”\footnote{Certainly this language refers to a utilitarian perspective that had evolved beyond the more narrow “stoic” sense of utility preferred by Pinchot and his heirs up until the major environmental laws of the 1960s and 1970s. See McQuillan, “Cabbages and Kings,” p. 198.} Standing in the Oval Creek drainage, a Forest Service roadless area in the Willamette National Forest and one of a few remaining intact, lower elevation drainages, Franklin admiringly referred to a “complexity of structure” and outlined the “two principles” that he felt were “very important to productive capacity”: “don’t reduce the capacity to reduce” (“don’t timber mine”) and “don’t extirpate species.”\footnote{Franklin in *Rage Over Trees*.} According to Franklin, the old growth issue related to both principles, and he soon went on to articulate this message in other ways.

In November, 1989, the research team, under the authorship of Franklin, published an article entitled “Toward a New Forestry,” in the popular magazine, *American Forests*.\footnote{Typically, forestry and ecology researchers, especially Forest Service and “cooperative research” university researchers publish through the “professional” avenues — the huge FS}
Forestry,” “an alternative” management concept, obviating the management choice between “tree farms and total preservation.”\textsuperscript{398} Management objectives would be shifted away from use concepts – farms and preservation – and towards “ecological values,” “while allowing for the extraction of commodities” as a by-product of good management; management objectives would be phrased to reflect concern for the perpetuation of the “structure and processes” of forest ecosystems with provisions for board feet. Borrowing a phrase from President George Bush, Franklin looked upon the approach as “a kinder, gentler forestry.”\textsuperscript{399}

The article discussed old-growth systems in terms of their ecological functions, “as important reservoirs of biological diversity,” and discussed some of the strategies for maintaining old-growth features in management activities (particularly timber harvesting). In an article the following year, “New and Renewed Stewardship: Toward a Silviculture of Diversity,” Franklin, with Perry and Swanson, was more explicit.\textsuperscript{400} In this article, the authors compare old forestry with new forestry, favoring the latter in language with political overtones. The authors wrote:

There are basically two choices regarding how forests should be managed. One, which has had precedence since it was originated in Germany in the 19th century, is to homogenize forests and forested landscapes, reducing natural diversity in order to concentrate on the economics of wood production. The second, advocated by a growing number of scientists and managers, is to

\textsuperscript{398} Franklin, “Toward a New Forestry.”
\textsuperscript{399} Ibid., 38.
\textsuperscript{400} Franklin, Perry, and Swanson, “New and Renewed Stewardship.”
manage forested landscapes in such a way that natural diversity is preserved.\textsuperscript{401}

The group validated its call to change forest management upon the need to maintain aesthetics, preserve species (particularly if endangered or threatened, such as the owl or red cockaded woodpecker), and protect "natural stabilizing mechanisms," especially "biological diversity."\textsuperscript{402} The group characterized "two important lessons" for management, noting:

First, stability in nature does not mean "no change"... but rather means constraining change within certain bounds which includes maintaining both the productive capacity of soils and populations of indigenous species. Second, forestry does not necessarily degrade ecosystems, and can even be a tool for keeping them diverse and healthy. Thus, silviculture must do two things: a. protect species and habitats that may have no market value; and b. reflect, to at least some degree, natural patterns.\textsuperscript{403}

Thus the group suggested "some principles" for managers to follow: Managers should leave "large dead wood" to serve as habitat "for animals that consume defoliators and barkbeetles" as well as acting as "water reservoirs, sites of nitrogen fixation, and habitat for organisms that cycle nutrients"; maintain "diverse plant species" for nutrient cycling and "retention following disturbances," as well as providing habitat and food for animals that prey on defoliators"; manage for "diverse landscapes" to reduce the extent and intensity of disturbances; apply "green retention" of large trees to allow two or more canopy layers to develop and provide sources of "snags and soil logs"; use wide spaces to allow "noncommercial plant species to coexist with crop trees"; use longer rotations "to avoid creating too much early successional habitat for animals such as deer that can become serious

\textsuperscript{401} Ibid., 200-01.  
\textsuperscript{402} Ibid., 199-200.  
\textsuperscript{403} Ibid., 200.
pests when too abundant”; and keep a “landscape focus,” “maintaining migration corridors and avoiding fragmentation.”

The Franklin led group was suggesting changes in the forest practices that challenged entrenched conventions in forest management, conceptually and financially, and through a channel that was overtly political. According to Franklin, the team wrote the article “because, basically, we thought we were at a critical junction point, and that point of view needed to be laid out before as many of the potential stake-holders and decision makers as possible.”

Insofar as the situation involved management -- an institutional problem -- it was political, and therefore, the team concluded, policy makers should be audience to the team’s conclusions regarding these urgent environmental matters. The team decided that the conventional mode of communicating research results was too slow, so they went directly to the more widely-read literature venues that decision-makers read. Regarding the “New Forestry” article, Franklin states:

I wanted to get to a much broader audience than just professional foresters; of course, that has just been further emphasized since -- that people who really, in the end, are going to determine policy are not foresters. So, whenever you’re trying to influence thinking and policy, you don’t want to go to the professional forestry journals; you want to go to outlets that you hope are going to get a distribution to interested lay personnel -- potentially decision makers -- that sort of thing.

New Forestry was soon to become well known to the public -- in addition to publicity afforded it by Franklin’s authorship -- through his work on the

404 Ibid., 201-207.
405 Franklin, “Interview,” 1.
406 Ibid., 1.
major politically-commissioned science reports in which he would participate.

Concluding Remarks

The two emerging discourses, Conservation Biology and Landscape Ecology, are in some ways quite different. Some of these differences reflect differences in other political discourses pertaining to forests. While Conservation Biology favors “naturalistic” landscapes and reserves and admonishes human artifact, landscape ecology focuses on and even embraces the human-built landscape, and while the latter has largely evolved into a “spatial language,” the former is concerned more with “functional” relationships between organisms and species.

Yet, the two paradigms also share many similarities, including overlapping and shared literature, terminology, methodology, and method, an interdisciplinary mix of practitioners, a focus on planning and practice, and an interest in large areas (ranging from a few to hundreds of square miles). Also common to these two disciplines was a plethora of terms and concepts open to debate and interpretation, setting the stage for further political negotiation when applied to management.407

People with political agendas and normative biases articulated the concepts constituting Conservation Biology and Landscape ecology, “sciences” that are concerned with the political practice of land management. They both

constitute similar languages of definition and of cause and effect -- relying upon categories and designations that would (and did) affect policy decisions affecting millions of people, not to mention myriad other species and ecologies. Thus, in effect, they provide the scientific parts, themselves political constructions, to be politically appropriated and assembled in various ways to form national forest policy -- particularly through the courts, through congressionally mandated scientific committees, and in the context of agency programs. Adaptive Management provided a protocol for this political assemblage of scientific parts. Central to adaptive management's methodology (its principles of experimental design) was the idea of crisis -- the idea that the problem at hand, preservation of a species, required expedient action. Actions would be evaluated in hindsight, and agency policy would shift accordingly. This emphasis on crisis provided the conceptual link that would make adaptive management so useful to the practitioners of conservation biology and landscape ecology.

Franklin's work in new forestry epitomized this synthesis and is a good example of the construction of science and its political appropriation by politics. In addition to helping construct the concept, he had a strong hand in its application in the context of the Interagency Science Committee and the Scientific Panel, as well as the Forest Service's New Perspectives program, and, ultimately, Ecosystem Management.
Chapter 6

The Power of Science: The Interagency Science Team and the Scientific Panel

Thomasina: Each week I plot your equations dot for dot, Xs against Ys in all manner of algebraical relation, and every week they draw themselves as commonplace geometry, as if the world of forms were nothing but arcs and angles. God’s truth, Septimus, if there is an equation for a curve like a bell, there must be an equation for one like a bluebell, and if a bluebell, why not a rose? Do we believe nature is written in numbers?

Septimus: We do.

— Tom Stoppard

Arcadia (a play)

In autumn 1989, the Forest Service was still suffering an injunction against selling stumpage on northern spotted owl lands — practically all the old-growth forest in the Pacific Northwest. Judge Dwyer of the Ninth Federal Circuit court had imposed the injunction because the Forest Service had failed to present an owl protection strategy that was based on the most current information on the owl. The agency needed science that the court would accept in order to continue its timber program.

In October, 1989, the Forest Service, in conjunction with the U.S. Fish and Wildlife Service and the BLM, chartered The Interagency Science Committee (ISC), to produce a “scientifically credible conservation strategy for northern spotted owl management” — which it published and submitted to Congress April, 1990. In November, Congress passed its Appropriations Act of

408 Yaffee, Spotted Owl, 114.
409 Interagency Scientific Committee, Conservation Strategy for the Northern Spotted Owl, 8.
1990. Among its directives were to redraft the Environmental Impact Statement it had issued for selling stumpage in owl territory, based upon the latest in science. Congress also endorsed the agency’s formation of the ISC, which would assemble much of the science to be used in the EIS.

In spring, 1991, the Forest Service continued to be enjoined from timber operations in owl forests, and Congress was facing pressure to solve the mutually exclusive demands of old-growth advocates and the timber industry. In April, the House Agriculture Committee and the House Merchant Marine and Fisheries Committee convened a Scientific Panel on Late-Successional Forest Ecosystems (hereafter, Scientific Panel), in an attempt to start the process of drafting legislation for managing the old growth in the Pacific Northwest. The following July, the Panel, dubbed “The Gang of Four” by industry rhetoric, released its report, which it presented to Congress in October.

In this chapter, I trace the history of the two projects as well as discussing the significance of each report insofar as it would influence forest policy and politics in the next few years -- particularly the premier of ecosystem management in 1992.

410 Section 318 of 1990 Interior and Related Agencies Appropriations Act.
411 Durbin, Tree Huggers, 168.
412 U.S. House Subcommittee on Forests, Family Farms, and Energy of the Committee on Agriculture and the Subcommittee on National Parks and Public Lands of the Committee on Interior and Insular Affairs, Joint Hearing.
The ISC and its report (October, 1989-April, 1990)

In October, 1989, U.S. Congress incorporated the ISC charter into the controversial Hatfield-Adams Appropriations Act, thereby assuring the committee some prominence in the political drama governing forest management in the Pacific Northwest.413 Congressmen and agencies alike seemed to take as given the assumption that producing a "scientifically credible" management plan — a "conservation strategy for northern spotted owl management and cooperation" was possible and feasible, for no provisions were made for the opposite possibility.414

The committees thus ratified the agencies' pick of internal scientists, which itself was inevitably restricted to a relatively few possibilities, for political and technical reasons.415 The Forest Service chose Jack Ward Thomas to lead the committee because he appeared to be one of their most "credible scientists."416 According to historian Stephen Yaffee, a "wide array" of scientists perceived Thomas as a "good scientist," but "good" went beyond the issue of "credibility," to include a certain "big stature kind of personality."417 Not only was he seen as a "straight shooter," but people perceived in Thomas "a sense of hutzpa," particularly from his refusal to leave his work in La Grande, Oregon to accept an agency management position." People formed a mythical image of Thomas, "because he faced the line officers in the eye and said 'I'm doing what's right.' That gave him both a

413 Section 318 of U. S. Public Law 101-121
414 Interagency Scientific Committee, Conservation Biology, 47.
415 Yaffee, Spotted Owl, 123-27, 194.
416 Yaffee, Spotted Owl, 123. George Leonard signed the charter for Dale Robertson.
417 Yaffee, "Interview," 10.
sense of somewhat mythic proportions, but also kind of reinforced his sense of independence." Also attractive to people involved in the discourse was a sense of "folksiness" that people imbued upon Thomas, according to Charles Philpott, director of the Pacific Northwest Research Station:

The person [chosen as ISC leader] had to be credible not just with the scientists but with environmentalists and other interest groups. We've probably got 5 to 10 people in the Forest Service who can do that. Jack has a knack for explaining complex things in good, simple English. And he can get folksy when it's appropriate.

By 1989, Thomas was known to various people for various reasons. He was responsible for arranging funding, through the Forest Service cooperative research structure, some of the early research on the northern spotted owl, especially graduate student work. Among the work Thomas assisted was Eric Forsman's graduate research in the late 1970s (at Oregon State University). Forsman was already bringing attention to his research on the owl, and he would later become a major contributor to owl policy, including his participation on the ISC, as I discuss below.

Thomas was also known to others in context of his service on the Society of American Foresters (SAF) committee that authored the policy statement, "Scheduling the Harvest of Old-Growth" (SHOG) in the early 1980s. The

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418 Ibid.
419 In Durbin, Tree Huggers, 112.
420 Yaffee, Wisdom of the Spotted Owl, 27
421 Society of American Foresters, Scheduling.
SAF committee’s membership was as significant as its statement. Many SAF committee members, including Thomas, would later serve on the ISC and Scientific Panels and other high profile teams and would be instrumental in the events leading to the Forest Service adoption of ecosystem management. Jim Lyons, then SAF director of resource policy, organized the committee. Later, as a congressional staff assistant, Lyons worked to assemble the Scientific Panel, and in 1993, he became Assistant Agriculture Secretary in charge of the Forest Service, where he oversaw the Federal Ecosystem Management Assessment Team. Looking back at the SAF membership, Lyons recalls:

Back even further to when I was the policy at SAF — and SAF should take some credit for this — we put together a task force to look at scheduling the harvest of old-growth timber. That involved many of the same players who were involved with the “Gang of Four” on Capitol Hill. That task force report was really instrumental in accelerating the evolution of ecosystem management.

One of those on the task force destined to become one of the “Gang of Four” was Jerry Franklin, a Forest Service researcher University of Washington professor soon become well known for his work in “New Forestry.” Before his work on the Scientific Panel, however, Jack Ward Thomas would choose him for the ISC. Another member of the SAF team who would later serve on the Scientific Panel was John Gordon, Dean of Yale’s School of Forestry. Gordon was a tree physiologist by academic training, and had earlier taught and researched in the Pacific Northwest.

Regarding this line-up and its relationship to the ISC and the later construction of ecosystem management, Thomas places Lyons and his work on the SAF committee and the Scientific Panel as central to the development of ecosystem management. Thomas recalled:

[Lyons] influence goes back before ISC to the genesis of the technical consideration of the “old growth” issue. This was the SAF [Society of American Foresters] assessment and subsequent report on scheduling old-growth timber harvest. Lyons was the SAF staffer who organized and guided that effort. When you trace the players in the entire old growth issue, there are those who continue a role through this entire drama. For example, Jerry Franklin and I were on the SAF committee staffed by Jim Lyons. Lyons did not have anything to do with the ISC, but was cognizant of the effort. When Congress tried to make a legislative fix, he was Chief of Staff working for the Agriculture Committee, and he know all the players for the previous SAF effort.424

Franklin, Gordon, Thomas, and Lyons, all who had helped articulate the task of linking political demands with the scheduling of old-growth, would help construct a solution to this problem.

According to Lyons, the importance of the task force followed from its four recommendations, including regarding old-growth as “valuable unto itself.”425 Lyons recalled:

If you go back and look at the task force report, it had four recommendations: It said define old-growth, determine how much is there, recognize that old-growth is an ecosystem, and that it is valuable unto itself — that was the first time it was ever said and it was said by the forestry professionals first.426

424 Thomas, “Interview,” 2.
426 Ibid.
Perhaps more importantly, the policy statement explicitly acknowledged the political (and potentially whimsical) nature of public forestry -- developing the multiple-use idea and presaging the rhetoric of the popular forestry soon to be developed as the New Perspectives program and as Ecosystem Management Policy.\textsuperscript{427}

In the first sentence of the introduction of the SHOG report, the SAF committee conceded that, technical questions notwithstanding, "[d]ecisions affecting the preservation and harvest of old-growth will ultimately be made through political processes."\textsuperscript{428} Old-growth policy was a political matter. Imposing the constraint of non-declining yield was inappropriate for scheduling timber harvest from public lands, it claimed. Rather, the Forest Service (and BLM) should determine appropriate harvest and preservation levels through the forest planning processes (which by 1984 had become highly politicized). Through the planning process, the agencies could consider the expanding set of values politically attributed to the national forests and plan for the highest utility. According to the task force, "the harvest schedule should be determined on the basis of social, economic, and environmental values found important during the planning process. These values collectively represent an appropriate measure for maximizing net public benefits."\textsuperscript{429} The committee had directly linked social utility -- "maximizing net public benefits" -- to political values. Presumably, "social, economic, and environmental," values would be ascertained through political demands made in the course of the planning process.\textsuperscript{430}

\textsuperscript{427} Society of American Foresters, Scheduling, 5.
\textsuperscript{428} Ibid., 5.
\textsuperscript{429} Ibid.
\textsuperscript{430} Ibid.
Determining harvest would involve treating political demands as "a basis" of decision-making; politics would drive the project of social utility. The process of determining this maximization would require a framework for transforming political demands into an old-growth harvest schedule, but the SAF committee did not approach the large problem of constructing such a framework. That task the ISC would grapple with.

The ISC had a large part in constructing the framework necessary to perform the translation of political demands into resource decisions. Among those chose was Franklin, who had been on the SAF committee and was recently known for New Forestry. Also on the committee were Charles Meslow, the Oregon State University professor who had been Eric Forsman's academic advisor during his early owl work, and Forsman himself. During the same time period, Meslow served on the U. S. Fish and Wildlife Service owl listing review committee, and he and Forsman both later served on the Federal Ecosystem Management Assessment Team (1993). For the ISC, Thomas had assembled a team including consisting entirely of members with biology-related backgrounds, ranging from wildlife management to animal ecology; none came from other fields, for instance sociology or economics.

Of the ISC members, many were well known among those involved in the political conflict around old-growth, and many would continue to play key roles in high profile debates regarding old growth. By virtue of its high-

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431 Ibid.
profile membership, the high profile status of the project itself, and the mission assigned it, the ISC report would inevitably be a political product, the technical nature of the planning process aside. Much of the language in the report verified this eventuality, pointing out that, necessarily, biological data had only constituted part of the analysis. Other social and politically constructed matters had exerted their influence, for instance, history and historical land use and ownership, current law, and “culture” and cultural constructions of economics and economic “trade-offs.” In the ISC report, the authors stated:

Our conservation strategy was not, nor could it be, formulated solely from biological data. Various Federal and state laws and regulations, land ownership patterns, past and present land uses, landscape features, existing habitat conditions, current and anticipated allocation of forest land to various uses, regional and national culture and the reality of trade-offs in all land-use decisions also influenced our choices.432

The cultural (and political) negotiation of these trade-offs -- particularly between timber and an old-growth dependent species -- had inevitably influenced the team’s “choices,” presumably those concerning which questions to investigate. This negotiation of trade-offs constituted the heart of the political dialogue over the national forests, and in this sense, the national dialogue had structured the team’s decision-making. However, in applying themselves to the questions involved, the committee claimed, it had remained objective:

To pretend that a workable conservation strategy for the owl can be derived and instituted without considering such factors is unrealistic. We did not, however, feel unduly constrained by these realities. Had we concluded that only total cessation of

432 ISC, 8.
logging in remaining suitable habitat would save the owl, we
would have so recommended. Conversely, we were equally
prepared to state that the owl needed no protection, if that were
indicated.433

Thus, the committee wrote that, though “the best management for the
northern spotted owl obviously is to preserve all stands of mature and old-
growth timber within the range of the bird and to grow more such stands as
soon as possible,” it was willing to settle for a more politically palatable
solution: “Recognizing the real-world situation, however, we will consider a
less than optimal approach to spotted owl habitat management that will, to
the extent possible, simultaneously provide a high probability of population
viability for the northern spotted owl, well-distributed within its range, and
still allow the cutting of old-growth and mature timber.”434 Taking as its
mission to designate the trade-offs between timber and owl viability, the ISC
(whatever the intentions of its members, the chartering agencies, Congress, or
Judge Dwyer), in effect, reified the reduction of public forestry in the Pacific
Northwest to the trade-off between these two “uses” or benefits.

To gather information regarding owl habitat characteristics, extent and
location of current owl habitat, and technologies for managing for habitat, the
ISC consulted with an assortment of “experts,” including “wildlife biologists
experienced in owl management,” silviculturists, landscape ecologists, forest
ecologists, and foresters,” as well as “experts in conservation biology and
landscape ecology.”435 Using this information, the committee, working
through the “delphi process” (designed to help groups of “experts” reach

433 Ibid., 8.
434 Ibid., 11.
435 Ibid., 12.
"statements") constructed a "rule set," which they then used to choose which of the 17 million acres of federal lands they would designate as owl habitat (and which they would not). They expressed owl habitat in terms of "Habitat Conservation Areas," which were larger but fewer than the "Spotted Owl Habitat Areas" (SOHAs) the Forest Service was using at the time. SOHAs, which the agency designed to provide habitat for one to three owl pairs, apiece, contained contiguous land areas laying within circles of radii ranging from 1.5 to 2.1 miles (1,000 to 3000 acres apiece).436 HCAs, by contrast, would generally hold at least 20 pairs and would convey many benefits for owl ecology, minimizing the effects of "random fluctuations in birth and death rates," "habitat fragmentation and edges," and "small scale disturbances" and encouraging "juvenile dispersal" and "recruitment" from within.437 Each HCA would be placed within 12 miles of another HCA, encouraging movement between the blocks, theoretically, increasing rates of genetic flow. According to the ISC: "Large blocks of habitat capable of supporting multiple pairs of owls, and spaced closely enough to facilitate dispersal between blocks, are far more likely to ensure a viable population than the current SOHA system.” The HCAs would also be defined by management objectives — particularly the lack of "logging (including salvage operations) and other silvicultural activities (with the exception of stand regeneration).”438

HCAs would constitute the "patches" within the "matrix" of non-owl lands — known by the team as "Forest lands outside of HCAs."439 But, the

436 Ibid., 17.
437 Ibid., 3.
438 Ibid., 4.
439 Ibid., 27.
team dispensed with "corridors," arguing that owls would not use narrow, linear corridors for travel, and opted to encourage owl dispersal by managing for stand conditions within the matrix:

We considered dedication corridors of forests between HCAs to facilitate dispersal by juvenile owls, but decided corridors were unnecessary, provided at least 50% of the forest landbase outside of HCAs is maintained in stands of timber with an average d.b.h. of 11 inches or greater and at least 40% canopy closure. We also rely on lands currently allocated to such uses as riparian corridors, streamside management zones and special management areas for pileated woodpeckers and pine martens to provide additional habitat for dispersing spotted owls.440

The ISC had appropriated the hierarchical, descriptive patch-corridor-matrix model of landscape ecology and turned it into a prescriptive forest management model.

To create the map, the team devised a rule set, governing the number of birds per HCA (roughly, 20 or more pairs), distances between them (no more than 12 miles — or 7 miles for the few smaller HCAs), stand conditions in "matrix" lands between them (50-11-40 rule), and creating 80 acre old-growth HCAs "around activity centers of up to seven known pairs of owls per township in the forest matrix."441 Using the HCA concept, the team identified 7.1 million acres of spotted owl habitat and over ten million acres of matrix on federal lands in the owl region.

The team then conducted viability assessments for ten "physiographic provinces" (the "Oregon Cascades East," "Northern California Coast Range,"

440 Ibid., 4.
441 Ibid., 28-29.
and so on) that it demarcated.\footnote{Ibid., 62, 202.} In this way, the owl resources available in each of the subregions would be accountable from the perspective of the entire range of the northern spotted owl, giving the team a means by which to assess the species' genetic viability as a whole. In context of the mapping, the committee produced the framework by which planners could roughly translate board feet to spatial area to diminished viability, or increased risk. Though risk was rated in subjective, qualitative terms (from "very high" to "very low") and not according to numerical indices, the structure represented the trade-offs in terms negotiable by some of the less technically minded in the political realm. Thus, they were able to describe the trade-offs in terms more explicit than available before, making stark the trade-offs. In choosing a "less than optimal approach," the team under the aegis of "scientific credibility," was in the position of legitimating (again, intentions aside) timber as a primary management objective, aside from assuring owl viability. Insofar as timber is the only competing use (and virtually always the objective for the road-building upon which recreationists later drive) and the major determinant of spotted owl habitat, any reference to loss of viability was, in essence, a reference to timber harvesting.

The ISC further reified primary status of timber harvesting in its development of the idea, found in the New Forestry work, that logging and old-growth management, particularly, management for the viability of the spotted owl, were compatible. According to the report, "[m]any management practices, including those associated with certain timber harvest methods, provide habitat attributes conducive to spotted owl dispersal. Examples
include visual corridors, riparian corridors, and streamside-management zones, all which contain possible stopover spots."\(^{443}\) (Though the structure of the first sentence in this passage implies that the following examples would pertain to "certain timber harvest methods," it is not clear that corridors or streamside management zones are particular to any particular one.) The report argued for the possibility that managers could use silvicultural practices to promote stand structures that would benefit owl viability, though the team was careful to note that the technology was not yet available:

> Silvicultural prescriptions might be developed that would yield significant volumes of wood products while maintaining suitable habitat for spotted owls, but we find no clear evidence that such prescriptions currently exist. ... Nonetheless, examining younger forests where spotted owls reproduce successfully should yield valuable insights into silvicultural techniques that could produce both wood products and owls.\(^{444}\)

The uncertainty and inexperience associated with such silviculture would be acknowledged by taking a careful approach of "experimentation," involving testing silvicultural treatments followed by careful monitoring. The report's authors claimed:

> Silvicultural modifications may include producing multilayered canopies in stands, and leaving structures such as large trees, snags, and fallen trees in place. If such treatments prove successful for producing owl habitat, timber sales of certain types might eventually be scheduled in [Habitat Conservation Areas]. But such sales can legitimately occur only after conclusive data are obtained showing that associated owl populations are stable or increasing, and after verifying positive owl responses to stands that have been so treated.\(^{445}\)

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\(^{443}\) Ibid., 27.
\(^{444}\) Ibid., 2
\(^{445}\) Ibid., 37.
This emphasis on experimentation directly alluded to the idea of “adaptive management,” which explicitly advocated “actively adaptive, probing, deliberately experimental policies.”\textsuperscript{446} (Forest Service policy makers were using this concept in other forums, also, for instance in the New Perspectives program, and later, in the production of ecosystem management.) With these ideas, the ISC was able to make rhetorical deference to the uncertainties of applied sciences and management. On one level, the complexity of the population dynamics of the endangered species the team was concerned with preserving resulted in uncertainty. On another level, the unpredictability of the politics that affected these species added uncertainty to management. As well as adapting to the uncertainty associated with the biological and political, the team had to defer to their consequences, as they acknowledged in their report: “[m]onitoring, research, and development activities must then continue in a likewise coordinated fashion for the conservation strategy to succeed both biologically and politically.”\textsuperscript{447} Politics, they recognized, would have the last say.

Politics, as it were, would have the last say, but the ISC participants played a large part in constructing the language in which the statements would be made. Also, using the logic of risk analysis, the team constructed the decision-making framework politicians -- bureaucratic, congressional, executive, or judiciary -- would use to guide their decisions. The ISC had constructed a rough structure for designating and comparing trade-offs, which the Scientific Panel, made up some of the same people, would refine.

\textsuperscript{446} Walters, \textit{Adaptive Management}, vii.
\textsuperscript{447} ISC, 43.
In 1990, as Congress was in the process of "entertain[ing] intervention," Jim Lyons, staff forester for the House Agriculture Committee, was orchestrating the formation of the Scientific Panel ("Gang of Four") in an effort "to get things going by providing members of Congress with a menu of options from which they could build forest protection legislation."\textsuperscript{448} Apparently, "Lyons persuaded Harold Volkmer, the Missouri Democrat who chaired the forestry subcommittee of House Agriculture [who was an active protection advocate], to appoint the four to a new team that would develop options for protecting owls and other old-growth species."\textsuperscript{449}

Like the ISC, the committee included a high-profile group of players. Jack Ward Thomas, still Chief Research Wildlife Biologist for the Forest Service Pacific Northwest Research Station, had barely finished leading the ISC. Jerry Franklin also had recently participated in writing the ISC owl strategy, and when chosen for the Panel, he was an active force in the Forest Service’s "New Perspectives" program.\textsuperscript{450} John Gordon, still Dean of the Yale Forestry school, had chaired the SAF committee. Having worked in the Pacific Northwest on old-growth forests, (including work with Franklin) and having been "Dean of the old school of forestry," he had gained some credibility; working with Lyons on the SAF committee and having testified before Congress before regarding old-growth, he had gained political exposure.\textsuperscript{451} Thus, he was a sensible pick from a political point of view. Norm Johnson, a

\textsuperscript{448} Durbin, \textit{Tree Huggers}, 168.  
\textsuperscript{449} Ibid., 168.  
\textsuperscript{450} See Chapter 6.  
\textsuperscript{451} Gordon, "Interview," 4.
professor at Oregon State University, had helped invent FORPLAN, the linear programming model that the Forest Service used to construct its forest plans and had worked with both Gordon, who had been Dean at OSU in the 1960s.452

The Panel's report was an elaboration and refinement of the ideas in the ISC, put in even more overtly political form. This resulted in a menu of management options and a projection of their consequences for comparison of their respective timber and wildlife trade-offs. Using much of the inventory data organized under the ISC, the team delineated management areas in "the owl forests" that were supervised by the Forest Service and BLM into various qualities of "late-successional/old-growth" (LSOG) including three classes, ranging from "most ecologically significant," to "ecologically significant," to "the remainder."453 Again, the division reflected the landscape ecology model, using it as zoning structure as it had done with the ISC report. "Ecologically significant" lands, upon which logging would be most severely constrained, corresponded with the patches, while "the remainder" would correspond with matrix lands. But these background lands were not background from a political point of view, because any rule applied to them, particularly the team's 50-11-40 rule, would affect timber harvests.454 In the team's words: "Applying the 50-11-40 rule generally lowers the harvest rate on the available forest-land base."455

452 Johnson, "Is FORPLAN obsolete?"
454 The 50-11-40 rule stipulates that at least 50 percent of a stand be forested with trees averaging at least 11 inches in diameter at breast height with a canopy closure of at least 40 percent.
455 Ibid., 60.
The team then drew up a range of alternatives variously emphasizing timber and wildlife objectives, expanding wildlife objectives to include retention of enough old-growth forest to assure the viability of old-growth "associated species," "viable populations of northern spotted owl," and "providing adequate habitat on federal land for marbled murrelet nesting, for other... associated species, and for sensitive fish species and stocks." In its projected consequences, the Panel used risk analysis to consider effects on the expanded set of wildlife concerns as well as expanding its estimated effects upon timber production to include economic analysis of job losses.

The Panel constructed its twelve alternatives in reference to the combined land management plans from the various BLM districts and Forest Service Forests in the owl forests:

An alternative starts with the land allocation from a variation on the Forest Plans that emphasizes wood production (Alternative 1) or from the land allocation in the Forest Plans (all of the alternatives). Then any or all of the following are added: (1) additional reserves (HCAs from the ISC strategy and the modified ISC strategy or an LS/OG network), (2) a watershed and fish option (current, watershed/fish emphasis option), and (3) a management option for lands outside of reserves.

As with the ISC report, the Panel structured its risk analysis in subjective terms, this time using a "seven-point scale of ranking ranging from 'very low' to 'very high.' A very low probability indicated a low chance (considerably less than 50 percent) of attaining the above objectives, while moderate approximated a 50/50 chance. A high probability indicated a high likelihood

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456 Ibid., 4.
457 Ibid., 6
or reliability (over 90 percent) of meeting the objectives. The Panel was not explicit about its argument for constructing the various levels nor about the certainty (confidence level) of the system. In its application of the rating system, the Panel was unable to use an algorithmic or automated process of evaluating alternatives, owing to inadequate data. Rather, the team used a communicative process, perusing previous research work and drawing conclusions as a group:

We conducted the risk analysis with the assistance of scientists who are expert in the species being considered. With their help, we reviewed the available literature and evidence on the habitats of the species being rated and then applied this knowledge to create the risk ratings.

Next the group authors claimed:

We did the analysis without sophisticated models, but the data base for most species does not support such analysis at this time. In addition, we did it in a short time. Still we are confident that, in general, further analysis would at most shift the results by one level either way.

In table form, the report associated the various alternatives with the viability of five wildlife objectives (to use the term "wildlife" rather loosely), including protection of a "functional Late-Successional/Old-Growth network," "viable spotted owl populations," marbled murrelet nesting habitat, "other LS/OG species" habitat, and "habitat for sensitive fish species/stocks."

\[^{458}\text{Ibid.}\]
\[^{459}\text{Ibid., 7.}\]
\[^{460}\text{Ibid.}\]
\[^{461}\text{Ibid., 31.}\]
The report also associated the alternatives with timber yield projections, as well as projecting "job losses," particularly associated with the timber industry, enabling Congressional members to compare trade-offs between timber and wildlife viability. Of the various political-economic effects possible – for example, the encouragement of other forms of economic production such as recreation – the team focused on the trade-offs between wildlife and timber. When presenting the panel’s findings at a joint hearing before the House of Representatives committees that commissioned the report, Thomas referred to the charts in the report demonstrating the trade-offs.462 Thomas testified: "What I want you to see in those charts is there is a dramatic cost benefit effect here. Additional levels of protection of assurance of achieving the objective [providing a viable owl plan] come at significant cost, in terms of the economy and in terms of jobs."463 In focusing upon this particular trade-off, the panel effectively strengthened the primacy of these particular uses that had defined the history of the ancient forest issue.

Concluding Remarks

The reports of the ISC and the Scientific Panel (and the internal teams’ political process that they represented) formed the language and framework by which the Forest Service and other land management bureaucracies that became involved in “Ecosystem Management” were to appropriate science and scientific texts. They also foreshadowed the role the agency would take in the future, which consisted of providing a framework – including terminology and methodology -- for politicians, particularly Congress – to

462 Ibid., 34.
refer to when politically divvying up the Pacific Northwest forests and administering the politically prescribed uses. Thomas repeatedly emphasized this role of agency science in his testimony before Congress:

The old-growth research program has listed those species. Essentially what we’re saying is “here, that’s for you to decide. Here’s our level of knowledge. Here’s the risk assessments associated given that level of knowledge. How much do you want to spend to be how safe?”

Later in the same testimony, Thomas reiterated his message, informing Congress of his role vis-a-vis them: “That’s the entire object of this report, that there are levels of uncertainty, there are levels of risk, and they have very high cost associated with them. But a scientist or a professional biologist is not the person to make those calls.” Thomas might not have been the person to make those calls, but as team leader of both the ISC and Scientific Panel report, he had a great amount of influence.

In the House joint hearing where the Panel discussed its report with Congress, Harold Volkmer (D-Missouri), Chairman, who had chartered the panel, forecast when he rhetorically asked Panel member Norm Johnson: “Basically, as I read the report, and I remember the statement, we’re looking at ways to now manage the national forests and public lands up there on an ecosystem approach. Is that correct?” Johnson affirmed. According to panel member John Gordon, the connection between the Scientific Panel and the later Federal Ecosystem Management Assessment Team project three years later (FEMAT, again led by Thomas) is direct: “It set the framework for

464 Ibid., 30.
465 Ibid., 35.
the FEMAT process, which was basically an elaboration of what we did there, and Jack led that, so it was a direct connection." In this sense, both reports represent the political appropriation of several years of discourse concerning old-growth forest ecology, the spotted owl, the economics of timber cutting, biodiversity, rural sociology, conservation biology, and landscape biology, to name but a few. This effort was a synthesis of these discourses -- discourses that themselves focus upon referents produced and reproduced by society at large and are reflected in the media of the day.

As important texts defining the allocative trade-offs of these desired referents, the ISC report and the Scientific Panel report set the terms of negotiation for the planning process that would later become known as ecosystem management. The report of the ISC -- a radically political document -- signified the mapping out of the costs and benefits of management in terms of the demands that were the most politically important at the time -- owls and timber. The "Scientific Panel" expanded upon the ideas in the ISC document to include more species -- including the politically important salmon. Though the Forest Service adopted neither the strategy of the ISC nor the preferred alternative of the panel, these texts formed the prototypes of the "ecosystem management" framework for designating and allocating "resources" (translatable into "uses" or "benefits," and later, "desired future conditions") and accounting for their trade-offs -- particularly, timber for endangered and threatened species. As well, the reports established and legitimated the process by which the Forest Service would appropriate science (as a process as well as a body of text) in the era of

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468 Ibid., 6; Thomas, "Interview," 1

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Ecosystem Management. Teams would produce scientific statements using a process wherein scientists with expertise (based upon primary research and literature) would negotiate qualitative statements regarding the effects of management upon the viability of species. Both teams produced models using the logic of "risk analysis," and while particular variable values might change according to the process of scientific revision, and while variables (such as endangered species) might be added or subtracted, the organizing principles would remain the same.
Chapter 7
Poly Science: The New Perspectives Program

Perhaps, after all, modern capitalism is a great factory for the production of angels.

-- Sol Yurich
Metatron

By the end of 1989, the Forest Service had become aware that its current approach to forest planning was not working in the Pacific Northwest, particularly in the face of the injunction on timber harvesting imposed in March. Constraints imposed by the legal protection of the northern spotted owl directly conflicted with timber planning. So did political demands made by old-growth advocates for protection of wildlife habitat, “biodiversity,” water quality, and ecological processes, preservation of “intangible values” (aesthetic, ethical, sacred or “spiritual”), and production of “recreation opportunities.” But selling stumpage had long been the central priority of the Forest Service, which was strongly influenced by the timber industry and its friends in Congress.

The Forest Service found itself in the position of having to reconcile these demands or have a solution forced by Congress, while the courts were consistently deciding against the agency in context of the spotted owl. Dale Robertson, then Chief, remembers that “we were losing court cases. ... [W]e were kind of getting cornered with the Endangered Species Act and losing our flexibility to manage the land.”

The creation of the “New Perspectives” program was the Forest Service’s response to this impasse — a program that the agency had recently conceptualized as a way of getting itself out of “the crossfire” of political conflict over unroaded and old-growth lands.470 The politically based program was an administrative answer to politics — the agency’s response to an expanding and often conflicting set of political demands. Associate Chief (at the time) George Leonard later reflected:

I think the thing that finally triggered New Perspectives and which evolved — in terms of the Forest Service program — into Ecosystem Management, was the continued level of appeals and lawsuits that raised those kinds of issues — the endangered species issues and issues like island bio-geography in the lake states and whatnot, all of which we found that the traditional approaches towards the management of the timber resources, in particular, didn’t satisfactorily address.471

All these conflicting demands — or “values” in Forest Service language472 — signified politically-demanded goods and the Forest Service’s mandate was to somehow reconcile them. New Perspectives was the vehicle by which the agency attempted this reconciliation by devising a set of forest management principles (derived, for instance, from adaptive management and new forestry) and applying them to various prototypical “projects” at the district level — on “project level planning efforts.”473 This chapter traces the history of the Forest Service’s political production of the New Perspectives program, outlines the principles and framework developed by the Washington Office staff, and discusses one of the program’s most significant pilot projects — the

470 Salwasser, “Gaining Perspective,” 32.
In June, 1989, Forest Service Chief Dale Robertson appeared at a joint hearing before the U.S. House Subcommittee on Forests, Family Farms and Energy (of the Committee on Agriculture) and the Subcommittee on National Parks and Public Lands (Committee on Interior and Insular Affairs). Robertson said: "Old-growth forests are really important." The joint hearings specifically concerned the "Management of Old-Growth Forests of the Pacific Northwest," and in this context, Robertson added, "They include a lot of values such as biological diversity, wildlife, fisheries habitat, esthetics, water quality as well as industrial raw material values." The Chief went on to implore that, "we have to reach some kind of a reasonable balance in managing this valuable environmental and economic asset." Presumably, the "we" included all stake-holders, while the Forest Service considered itself to be the proper arbitrator of "reason."

In October 1989, Robertson again appeared before Congress to discuss the Forest Service's strategy for coping with the controversy around old-growth management, particularly in owl country, or in Robertson's words, to discuss strategies to help the agency "through some difficult times." Again,

475 Ibid.
476 Ibid.
Robertson appealed to reason and balance: "Somehow we have to work together to try to manage through this situation and arrive at some kind of a sensible, reasonable, balance approach to managing these forests."\(^{478}\) Robertson repeatedly uses these terms — "sensible," "reasonable," and "balance" in this address.\(^{479}\) Robertson argued that the Forest Service, through its rational planning process, was still the right agency for this task, telling Congress, "I believe the planning process has worked reasonably well."\(^{480}\) According to Robertson, much of the turmoil the Forest Service faced resulted from changing times, but given some "flexibility," the agency could make the planning process work: "Times change. Needs of people change. Resource conditions change. New thinking comes along — like old growth — and we need the flexibility to deal with those changes as they occur."\(^{481}\)

Robertson, having referenced "new thinking," submitted a written report announcing to the committee that the Forest Service was working on a new program, "New Perspectives." The program would attempt to strike this "reasonable balance" and appease the public by providing for "diverse values," particularly ecological concerns, in addition to — but not at the expense of — timber: "'New Perspectives in Forestry' reflects our recognition of the need to continue to produce traditional forest products and provide for traditional forest uses while being more responsive to public concerns for all

\(^{478}\) Ibid., 24.
\(^{479}\) Ibid., 26.
\(^{480}\) Ibid., 25.
\(^{481}\) Ibid., 25.
A month later, George Leonard, Associate Chief, testified to a House subcommittee regarding the New Perspectives concept:

> Basically, the idea is to combine knowledge of forest and rangeland ecosystems and landscapes with appropriate elements of traditional management practices. The objective is to develop management systems that will continue to provide for sustained production of commodities, such as wood and forage, while also providing a wider range of noncommodity values, such as wildlife and fish habitat, water quality, and recreational opportunities.

Robertson recalls that he decided to adopt the term “New Perspectives” after frantic negotiation among Washington Office staffers preparing for the hearings, opting for a compromise term that insinuated a change in the agency’s modus operandi without fully adopting the contentious term, “new forestry.” The Chief had first heard the term only the day before the hearings. Reflecting upon the events, Robertson commented:

> I didn’t come up with that term. I remember some of my staff didn’t like “New Forestry.” We were facing some Congressional hearings in Congress that I had to testify about something. I don’t even remember the topic — I guess it was about what we were doing about New Forestry and that sort of thing. So, my staff, really working on the testimony, came up with this word “New Perspectives.” I don’t know if I would have come up with it, but I was the one who had to announce it, because I had to go to the Congressional hearing and talk about a new program, a new initiative, and it was “New Perspectives” — a new perspective.

Robertson recalls that the term was not only new to him, but the concept was also somewhat vague: “I can remember the staff came in for my testimony and briefed me and I saw this new term, ”New Perspectives,” and I

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482 Ibid., 102.
484 Robertson, “Interview,” 2.
asked them, now tell me what that means." As Robertson remembers it, the staff explained the concept as a sort of expanded forestry — "a broader perspective both geographically as well as the spectrum of values we were trying to perpetuate through time." He added:

Basically what it meant was a broader look at forestry. Again, we weren't in the Ecosystem Management yet, but it was a new perspective looking at, first, the whole spectrum of values of a forest that we needed to maintain over time; and then the other aspect was the looking at the broader area, you know, and they came up with the landscape area as opposed to a smaller area.

Robertson was not completely comfortable with the term, especially insofar as it reflected the controversial "new forestry." But political expediency required some action, and Robertson went with the advice of his staff, adopting what he recognized as a political term. He noted:

I remember saying in the meeting, "Well, I don't particularly relate to New Perspectives but I relate to what you're trying to portray." And they asked me the same question, "Do you have a better term?" and I said "no." I didn't have a better term. So, I think New Perspectives was kind of ... I was having to go to Congress to testify, it was where we kind of coined the term, and you know there's something new in the Forest Service, so it was kind of a more compatible, political term to describe what Franklin was calling New Forestry. So I just didn't have a better term and we were facing a deadline of about 24 hours. I said "well, unless I can come up with a better term we'll just go with it."  

The top-line officers were unable to articulate the program in any precise way, but they were generally aware that "something new" was advisable, and the increasingly familiar "new forestry" would provide some of the substance. Robertson recalls that, "again it was... just kind of a label that we

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485 Ibid., 2.
486 Ibid., 2.
487 Ibid., 2.
488 Ibid., 3.
pretty much put on Jerry Franklin's work — it was probably modified as it came through the management process — to reflect that this is something new.”489 Associate Chief Leonard later reflected upon New Perspectives as a sort of vague polyglot of features that signified something new, stating:

The term New Perspectives was kind of an accidental thing, but it was to get across the idea that we wanted people to look at our forests with some new perspective, not the traditional timber and big game perspectives and in effect said that “you're empowered to go out and deal with some of these new ideas that a few people are putting out in the professional publications and whatnot.”490

The Washington Office of the Forest Service, facing political wrath from all fronts, had created a term, New Perspectives, that might afford the agency some “flexibility to manage the land,” without knowing exactly what the term meant. It had created a signifier which it was in the position to fill.

The Contents: Filling the signifier of New Perspectives from Dr. Salwasser’s Medicine Bag

The Forest Service directorate had promised to Congress that it would produce a “new perspective,” though they did not seem to know what such an object would be. To accomplish this double task of inventing and administering a new perspective, the agency needed a new department — a “program.” To this end, the Washington Office began to assemble the staff and prepare and official charter. According to Hal Salwasser, chosen to lead the project:

489 Ibid., 3.
A week or two before the Christmas holiday [1989] they called me in -- I was the Deputy Director of Wildlife and Fisheries at the time -- they called me in and asked me if I would accept the job of heading up this New Perspectives effort. And somewhere in that period, between the hearing in September [1989] and when they formalized the charter for this New Perspective thing [April, 1991], it took on the name "New Perspective for Managing the National Forest System." And it had, as some of its principles, that it was going to be a management-research partnership.491

Salwasser was already familiar with political proceedings at the Washington Office. Through much of his tenure in Washington, he had been a successful bureaucrat, serving in the interesting role of keeping the Forest Service abreast of changes in mainstream political opinion. For instance, in 1986, he served as senior natural-resource analyst for the "President’s Commission on Americans Outdoors," providing "technical expertise," conducting workshops, and publishing findings and recommendations regarding recreation vis-a-vis environmental quality, greenways, and wildlife, fisheries, and water.492

As a senior analyst earlier in the 1980s, Salwasser had played roles epitomizing the agency’s post-NFMA and NEPA mandate of interdisciplinary planning and management, seeking reconciliation between planning and management and newly formed bureaucratic concerns such as “biodiversity,” “viable populations,” and “cumulative effects analysis.” During his tenure in Wildlife and Fisheries, Salwasser developed and promoted programs reflecting his “multiple-resource outlook,” based on the

491 Salwasser, “Interview,” 3. Salwasser, a long-time Forest Service bureaucrat, reflected his acculturation into the bureaucratic worldview — deference to officers up the line of command — by following this quotation by noting that “I ended up reporting to the two deputy chiefs simultaneously, Sessco and Overbay.” Ibid.
492 Salwasser, “Curriculum Vitae,” 2.
proposition that managers can and should produce wildlife in a rational framework. To the 47th North American Wildlife Conference (1982), he implored that "to fulfill the responsibilities for wildlife and fish habitat on lands managed for all resources, decision makers need specific and accurate information on the capabilities of land areas to produce wildlife and fish and the probable consequences of alternative management prescriptions for wildlife and fish and their habitats."493

Through his writings, Salwasser developed the concept that the agency could manage forests to please all — excepting the "me-first forces in our society," who "are pulling us apart as every special interest wants its exclusive slice of the pie."494 These "extremists," he believed, had created "the vision for how forests should be managed," as well as describing "what constitutes excellence in performance," and had sabotaged "common ground for the long-term public good," creating "a nearly impossible task for those who are asked to craft policies and programs that seek balance among conflicting values and uses, harmony between people and land — like us."495 The agency had to be the ultimate arbiter of what was reasonable and harmonious.

In a similar vein, Salwasser was concerned with efficiency in the production of goods and services from the National Forests.496 His enthusiasm and optimism in this regard was especially apparent in a

494 Salwasser, "New Perspectives for New Realities," 5. This title implies Salwasser's awareness that, for the agency, reality was multiple and relative.
495 Salwasser, "Gaining Perspective," 34; and Ibid., 5.
496 Ibid.
statement made at the 1985 Society of American Foresters Annual
Convention, where he likens the managed forest to a factory:

It is a rich and exciting time to be involved in forestry in this
country. The fruits of our labors serve more people’s needs than
ever before; enriching their lives greatly through diverse, high
quality products and experiences. The source is the managed
forest. Where else can you find a factory with such wonderful
products as clear grain white pine, elk, pure water, veneer
walnut, wild turkeys, wilderness recreation, colorful
woodpeckers, trout, bass, and salmon? This diversity of products
is found only in managed forests that are tended by innovative
professionals schooled in a broad spectrum of resource
disciplines. The multiple-use forest, planned according to
integrated, interdisciplinary, multi-interest, ecosystem concepts
is coming on line.497

To realize this utilitarian view of the forest required both a concern with
the social work of technology transfer and aggressive marketing to the
public.498 According to Salwasser, the success of the factory model of forestry
depended upon two prerequisite projects:

(1) Help resource managers know how to get the most out of
their efforts in integrated forestry -- that is Technology Transfer
to make better uses of new methodologies, and (2) market the
success stories in integrated forestry -- that is, and aggressive
sales and advertising effort at all levels of society to get the
message out on what multiple use forestry is doing for people.499

Apparently, by mid-decade, a lack of “specific and accurate information on
the capabilities of land areas to produce wildlife and fish and the probable
consequences of alternative management prescriptions for wildlife and fish
and their habitats” was not enough to discourage Salwasser from aggressively
promoting many of the same goals that the New Perspectives program would
later adopt. Uncertainty was inherent, he argued, insofar as “no two species,

497 Salwasser, Holthausen, and Darden, “Using Wildlife and Fish,” 170.
498 In a situation like this, the line between “marketing” and “propaganda” is indiscernable.
499 Salwasser, Holthausen, and Darden, “Using Wildlife and Fish,” 170.
populations, or management situations are identical” and, therefore, “universally valid generalizations about minimum population sizes... are not possible. Each case must be judged on its merits, and each case will be clouded with uncertainty. We always lack full knowledge of a species' biology, habitat needs, and population dynamics. We can never be certain that habitats will respond to treatments exactly as expected.”  

Further, nature can be “random and beyond our control”; disturbances could change large areas of forest, reduce viability of a species, and eliminate management possibilities, altogether.

Salwasser concluded that since uncertainty was inherent, and since the Forest Service had a mandate to manage and produce goods and service, the agency must proceed in the face of uncertainty. But, he argued, forest managers must use the best in scientific tools — particularly “risk management,” towards the goal of an integrated multiple-use management: “to make prudent land use decisions regarding viable wildlife populations we must use existing knowledge and experience to convert uncertainty into actions designed to meet the goal.”

Salwasser argued that the agency could manage for the entire range of political demands, given the flexibility; his directorship of the suitably ambiguous New Perspectives production apparently presented the opportunity. Once the Forest Service had committed itself to the new program, Salwasser and others in the Washington Office had to decide what the new program would be. According to Salwasser:

500 Ibid.
501 Ibid.
After having said [that the Forest Service was going to explore some new perspectives in forestry] in a hearing in September or October, we had to put a team of people together to figure out what it was we just committed to. So there was an interdisciplinary group in the Washington Office that had Nelson Waftus from Silviculture Research and it had Ed Slater from Range Ecology, and three or four other guys --some of the more ecologically oriented people in the Washington Office Staff as an interdisciplinary group to lay out a set of ideas for what this New Perspective search would be.502

After the preliminary conceptualizing, Salwasser began work on assembling a team to articulate the contents of the new program and set to work promoting it within the agency as well as to the academic community, environmental and industry activists, professional groups, and politicians:

I started on the project in January or February of 1990 and I recruited a very small team of people: Chip Cartright off of the Jefferson National Forest and Jim Caplin of Planter on the Bridger Teton and Winnie Kessler who was an ecologist for the Fish and Wildlife staff out of Logan, Utah. But they didn't start showing up until May and June. So, between February and May and June, I spent a lot of time going out and visiting people and seeing what they were doing and getting their ideas, for what we should be trying to accomplish with this New Perspective opportunity.503

Soon Salwasser organized a convention, inviting representatives from professional groups and mainstream political interest groups to formulate “some guiding principles.” Then, he began to encourage field level demonstration of some of these emerging New Perspectives principles. Salwasser later recalled:

Then we hosted a workshop in Philadelphia and invited seventy-some odd people to come in for several days, and half of the people were not Forest Service people. By design we opened

502 Salwasser, “Interview,” 2.
503 Ibid., 4.
it up to try to get a broad spectrum of ideas. We had people from what you might consider traditional viewpoints: Society of American Foresters, the Wood Products Industry, and we also had people from the conservation community — National Wildlife Federation and that sort. And, we came out of that workshop with some guiding principles, and that stimulated us to engage the field folks in putting forward a series of projects that would exemplify managing for diversity of values in the land and team work between science and management. It expanded beyond Forest Service research to approve university type folks and the partnership idea. 504

The New Perspectives program had now constructed a conceptual framework from which to proceed. This conceptual framework was organized around a set of substantive management “principles,” to be implemented at the planning and analysis stages of management, which would proceed according to the procedural principles that the New Perspectives team had assembled.

The Filling: the Text of New Perspectives

The architects of New Perspectives synthesized the program’s textual substance from diverse sources, themselves filled with political content by players (scientists) in a political struggle. The emerging discourses known as landscape ecology and conservation biology constituted significant textual sources, as did proposals for their application to silviculture and forest management, particularly by “the Andrews group.”505 New Perspectives also appropriated ideas from discourses on planning process, particularly the concept of “Adaptive Management,” reflecting the centrality of social processes in producing conservation biology and landscape ecology. Both of

504 Ibid.
505 So named in Swanson, “The People Behind the New Forestry.”
these discourses, which emphasized questions of methodology and technique — the "scientific process," in which interpretation and "art" were notably active — had emerged in a high-stakes political environment.506

Salwasser, in turn, linked statements common to these fields to the concept of multiple use and the emerging literature emphasizing the term "sustainable" — "sustainable development, sustainable forestry," and so forth.507 According to Salwasser, New Perspectives was a form of "sustainable ecosystem management," and though he was not sure what that meant, he believed it to be "an elaboration of the concept of multiple benefit, sustained yield resource management."508 Insofar as "multiple benefit" was merely a euphemism for multiple use, Ecosystem Management affirmed the agency's mandate for "multiple use, sustained-yield."509 According to Salwasser and staff, developing this "sustainable ecosystem management," as the cause célèbre of New Perspectives, involved three general goals.510

The first goal would be to "broaden" the concept of multiple-use. This broadening took place on two levels. First, and most important, New Perspectives would "broaden the concept of multiple use to include multiple value, and extend the concept of sustained yield to sustainability of all the values and uses of healthy ecosystems."511 Multiple-values would include health and function in the national forests, as well as the availability of

506 For instance, see Soulé, "What is Conservation Biology?" 1.
507 Salwasser, "Gaining Perspective," and "New Perspectives for New Realities."
508 Salwasser, "Gaining Perspective," 35.
509 Ibid., and "New Perspectives for New Realities."
510 Ibid.; Ibid.
511 Salwasser, "Gaining Perspective," 36.
diverse management options. Kathy Johnson, ranger of the Gold Beach
district of the Siskiyou National Forest, appeared in the Forest Service
promotional video, *New Times: New Perspectives in Forestry*, promising
that New Forestry would "allow us to keep our options open," and "save a
healthy, functioning forest."512 In literature that the New Perspectives team
circulated to the regional offices (1991), this was an affirmation of the agency's
mandate to multiple use, but with an "ecological" perspective. As a result,
the authors of the foundational memo proclaimed:

This direction reaffirms sustainable, multiple-use management.
But it is multiple use with a difference. It is strongly based on
ecological concepts to assure that resource management sustains
the health and productivity of the land. And it emphasizes a
better balance among the many values and uses of land.513

Managing for such "balance" would mean protecting "the most sensitive
elements and processes of the land community from degradation, especially
the rare species, wetlands, old-growth forests, and processes that sustain
productivity and provide resiliency to stress"; recovering "the endangered
species and restor[ing] areas and ecological process degraded by past practices";
meeting "people's needs through economically sound, sustainable uses of the
land and its goods and services... without impairing the continued vitality of
the land"; regenerating "healthy, resilient, and productive land... with an eye
towards natural health, diversity, long-term productivity, and the esthetic
and spiritual values that derive from such accomplishments"; and
integrating "management, research, and monitoring to allow management to
become a grand learning opportunity, from which periodic adjustments are
made."514

514 Salwasser, "Gaining Perspective," and "New Perspectives for New Realities."
A key and unifying concept in the New Perspectives rhetoric was management for "biodiversity" as a natural resource. According to its 1990 Resources Planning Act Program, "the Forest Service views conservation of biological diversity as a multiple-use issue, not simply a land preservation scheme." The team presented biodiversity -- and, more generally, merely "diversity" -- as "values" that manifested in many forms of analysis, for instance as "structural," "functional," or "compositional diversity" (respectively, diversity of spatial and temporal forms, processes, and species).

Diversity was to be analyzed on various scales, from the stand level to the regional level, introducing another term given great coinage by the New Perspectives staff -- "managing according to scale." By maintaining and enhancing biodiversity -- using old-growth forests to learn from -- the Forest Service could construct a "managed forest" that would allow for a sustained supply of goods as well as maintaining "ecological values." In the words of Franklin, again speaking via the New Perspectives video: "Nature put her forests together in a very different way than we've been putting forests together, and what lessons we can learn from these old forests we can then put to work in creating a different kind of managed forest.

In addition, Salwasser and his team implied a more subtle modification of multiple-use -- a shift from allocating different zones to timber or non-timber

515 Excerpted from the Forest Service, Program for Forest and Rangeland Resources: A Long-Term Strategic Plan, 1990, in Rockwell, "RPA -- The Sleeping Giant," 11.
516 Crow, "Conservation Biology and Landscape Ecology."
uses (through the process of designating certain lands to "suitable timber base") to managing for different uses on the same piece of land — or, in the words of Bill Atkinson, then manager of Oregon State University's experimental forest — a shift from managing for "a single, dominant use, spatially separated," toward managing for "several uses on the same piece of forest land." According to the program's promotional video, *New Times: New Perspectives in Forestry*, "Everyone wants their piece of the Forest. And the impression has been given that only by slicing up the pie can the various interests and values be served. But the new perspective of the Forest Service is that pie slicing no longer works, and is unnecessary."

The film then featured Jerry Franklin — as Forest Service and University of Washington scientist. Franklin promoted the New Perspective's mixed use approach using the language of silviculture. In his statement, Franklin alluded to clear-cutting, but carefully avoided using the term. According to his view:

> There's absolutely no reason why we have to continue to go through the pie slicing process. What we do have to do, however, is move away from these dichotomies — as with, for example, "there's no choice but clean-cut forestry or selection management."

This switch in the meaning of multiple-use implied that the management of special reserves was obsolete. In the New Perspectives video, Lynn Burdett, then ranger on the Blue River district of the Willamette National

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519 U.S.D.A., Forest Service, *New Times, New Perspectives*. Proposed changes to the Forest Service planning regulations would have eliminated designating "suitable" timberlands — a process that had been set in place to implement section 6 (k) of NFMA. See McQuillan, "Wolf in Sheep's Clothing."
Forest -- the “top timber producer in the U.S.” -- alluded to this implication. Interestingly, only minutes (film time) after the film’s narrator claimed that New Perspectives was abandoning the pie-slicing metaphor, Burdett resurrected it in another form -- the pie would remain, but it would be reduced to include only what forests were left to negotiate for. In her words: “The pie is getting much smaller and it’s difficult to imagine that it will work very well to have reserves and highly intensively managed areas under our old way of doing business and meet the ecological objectives that we might want to.”521 Pie slicing would be out; mixed forestry would be the new perspective.

The second goal of “sustainable ecosystem management” was to “expand forestry as applied science from a tree orientation to a forest orientation by integrating biological, physical, social, and political sciences.”522 This goal reflected Salwasser’s earlier experience in synthesizing scientific texts into administrative language. The agency would do its “integrating” in the context of cooperative research arrangements between the agency and universities, between the agency and other agencies (especially those in Interior) and in forest planning, linking managers and scientists (using a model analogous to the Scientific Panel). The Forest Service would create “close partnerships between managers, researchers, and educators.”523

This procedural concern -- the formation of research partnerships, especially in the interest of studying old-growth ecosystems for knowledge

521 Ibid.
523 Ibid., 37.
useful to silvicultural management — was to become a main focus of the agency, and all concerned groups would be included. According to Salwasser:

Applying these lessons in order to maintain ecological values and produce a sustained supply of goods has been a major focus of research conducted in a partnership involving the national forests and the research branch of the Forest Service. Other partners are universities, the forest products industry, environmental groups, and those who represent other personal and public interests.524

This would be a democratic, inclusive science project, but it would include experimentation on a grand scale, including "megascience projects for natural resources that capture the imagination of the best and brightest intellects — like the Apollo project did for space."525 But, while grand, the science would still be a people’s science — with an emphasis on utility and action, rather than the product of a detached, elite scientific community. According to the program’s video:

New Perspectives research is not some esoteric, test tube experiment. It is science in action. And when the experiments are completed, the results are implemented on the ground as management prescriptions.526

Using the present tense — “the results are implemented” — the film implied that New Perspectives was already established and involved in the “action” of applying its science to the better management of national forests. This assertion was not necessarily true.

The final goal of “sustainable ecosystem management” was purely political. Salwasser proposed to reduce legal and political opposition to its

524 Ibid., 37.
525 Ibid., 37.
526 U.S.D.A. Forest Service, New Times, New Perspectives

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policies, or in his words, New Perspectives must negate "the ability of special-interest groups to play political trump and legal 'gotcha.'"527 This would involve several strategies, ranging from an intensive propaganda effort to recrafting laws and regulations to curb lawsuits and administrative appeals.528 Among Salwasser's suggestions were mass "education" regarding forestry issues, shaping "goods and services" to "satisfy the customer," and developing a mass advertising program. Thus, the agency would "find out how people get their information and form their opinions and aggressively enter the game. People must know what it takes to produce the things they desire and at what cost and consequence."529 Given the correct information, agencies and people could come together to discuss what was best for the forest and the public. In addition, changes in "laws, regulations, and incentives" would discourage disruption of the planning and management process by "extremists" and other "unreasonable" people. Since Salwasser made this statement one year after the 1989 appeals regulation changes, presumably the agency envisioned additional changes to preclude action by the irrational elements.530

With "guiding principles" now formulated, the New Perspectives team encouraged field officers to undertake a number of projects -- mostly demonstration and research projects, or "pilot programs." By April 1991, shortly before the Scientific Panel presented its report to Congress, the team sent out the official charter as well as a "Progress Report" to Regional

527 Salwasser, "Gaining Perspective," 37.
528 Ibid., 37.
529 Ibid., 37.
530 See Chapter Two, "Smokey's Identity Crisis."
Foresters and Research Station Directors. In a mailer distributed to the regional offices and research stations, the Washington office pronounced that, "[m]ost of what will come to characterize New Perspectives is yet to unfold; most field demonstrations and research projects are still being shaped. However, a lot has happened so far."531 "A lot" included "silviculture research," "New Perspectives sessions at leadership team meetings," "biodiversity workshops" and conferences, educational projects, inclusions in regional guides, and "demonstration" projects in ten regions. By this time, the staff had established its principles and framework and had begun implementing them.532

Shasta Costa

To implement his newly devised principles for New Perspectives, Salwasser and his crew used the idea of "project level" planning, wherein the program would work with Forest Supervisors and District Rangers to devise plans for a controversial roadless area.533 Forest Service personnel would consult with the public and the timber industry through hearings and meetings, and the resulting plans would reflect the principles of New Perspectives. The "Shasta Costa Timber Sales and Integrated Resource Project" (Siskiyou National Forest), one of the agency's first attempts at instituting New Perspectives, was a telling example of project level planning. It was a highly controversial and visible project, introducing timber management and roading into the Shasta Creek drainage roadless area, which

532 Ibid., 1.
533 Ibid., 1.
was situated between the Wild Rogue and Kalmiopsis wilderness areas (though not contiguous to them), and provided significant salmon and trout habitat. According to an anonymous staff writer at the *Inner Voice*: “The creek, a tributary of the Rogue River, is one of the last unsilted spawning streams in the region, critical for several species of salmon and trout.”534

In Spring 1990, after intensively studying, classifying, and mapping the watershed, the agency released its *Draft Environmental Statement for the Shasta Costa* project. The Siskiyou had chosen as its “preferred action” alternative B, which “incorporate[d] the full array of New Perspectives concepts, such as minimizing fragmentation, maintaining biological diversity and habitat connection, and establishing structural integrity of riparian ecosystem.”535 The alternative proposed a 25 percent reduction in timber harvest from earlier proposals and involved 2-1/2 miles of road off the Burnt Ridge and Bear Camp roads, which encircled the drainage. According to the plan, the agency would harvest timber using selection cutting with small, group clearcuts, and remove it using helicopters, existing roads on the perimeter, and the additional two miles of newly built road.536 But, the agency “kept its options open” by limiting the plan to a three year planning horizon, stating that “any shortfall in timber volume cut from the area may be made up after the 3 year planning period expires.”537 Nevertheless the agency declared that the Shasta Costa planning area was a unique choice for implementation of the program and that its implementation provided a good

536 Ibid., S-8.
example of what the program was all about. In the agency's words, the areas was a "unique area for the exploration of New Perspectives. The Shasta Costa planning effort offers one of the most exhaustive glimpses of New Perspectives and Forest Plan implementation found to date."538

Meanwhile, the team in the Washington Office was dedicating significant resources to promoting the image of the Shasta Costa project as a shining New Perspectives success. In early 1990, for instance, the team publicized a glossy, color pamphlet on the Shasta project entitled, "New Perspectives on the Siskiyou National Forest, the Shasta Costa Integrated Resource Project Landscape Level Approach to Timber Sale Planning." In March, the agency promoted the project in its promotional video, New Times: New Perspectives in Forestry. The video featured Kathy Johnson, district ranger on the Gold Beach district within which the drainage is situated, Siskiyou Forest Supervisor, Ron McCormick, and even Forest Service Chief Dale Robertson. The video placed each of these officers "in the field," discussing the drainage and the possibilities of New Perspectives. Making several spoken and visual references to the science and technology involved, the team had also attempted to portray the project as a democratic process. For instance, the video situated McCormick, standing in the field, propositioning the "environmental community" to "roll around together" with the Forest Service. Facing the camera, almost sheepishly, McCormick told the camera:

We want you to join us here, on the ground, and let's roll around together, in the environment, and try to learn together what's happening here and how we can work with it in our management of the National Forests.539

538 Ibid., 11.
Nevertheless, the Oregon Natural Resources Council announced its intention to fight the plan in court, and the timber industry criticized it on the grounds of the planned harvest reduction. Subsequently, the Forest Service stalled for time, maintaining a period of silence, and the agency shifted personnel, particularly Johnson and McCormick, removing much of the official support for the New Perspectives option. According to journalist Kathie Durbin, “Forest Supervisor Ron McCormick retired, and Kathy Johnson, a rising star in the Forest Service, was promoted to a job in the agency’s Washington, D.C. office [and in] 1991, Mike Lunn replaced McCormick on the Siskiyou.”

In March 1991, the agency released its final EIS, replacing the New Perspectives option for its proposed action. The new alternative, which the agency declared “best reflects the Capital Investments and Ten Year Action Plan” called for increased road construction — 6.2 miles — and higher timber harvest levels — 17.5 million board feet. New Perspective’s role, which was mainly linked to planning by providing a conceptual basis for “considering the implications of several timber sales, road and trail construction, fish habitat, and water quality improvement projects from a stand, watershed, and landscape perspective” had been sidelined.

The Shasta Costa New Perspectives innovation faded into oblivion, but, undaunted, Salwasser and his team continued to promote the program and claimed successes.

540 Durbin, Tree Huggers, 130.
Marketing the Idea

The agency continued to promote New Perspectives in conventions, journals, and other media, and the program soon began to attract the attention of foresters outside the Forest Service. The agency's video used dramatic images in an attempt to situate the program as the solution to political conflict and redefine multiple-use in its image.

In an intense introduction — under three minutes long — the film laid out its entire position. Beginning with a dramatic drum rhythm repeated over and over, increasing in volume as ominous newspaper headlines flashed into view. First came headlines pertaining to environmentalists: "A blow to Northwest timber interests -- spotted owl study calls for saving vast tracts of trees," then "Conservationists fight Pacific Coast logging."543

Then followed poignant allusions to the resulting difficulties and consequences for the working people of Oregon: "Forest Chief assesses owl's plight," and "390 jobs at Klamath Falls Mill."544 Then the headlines "trade groups back log export," "drive to save old forests begins," "Senate should pass old growth bill," and finally "Shortage of logs hurting." At the close of this segment, a voice-over ominously told the audience, "More and more people want parts of the national forests reserved for their particular needs and interests," before fading into Jerry Franklin's promotion of a new perspectives approach to "sharing the pie." By the end of the video, with the

544 This sequence cleverly linked these effects to the environmental movement, despite the existence of several plausible alternative explanations common in the discourse at the time — for instance lay-offs resulting from increased "worker production" (increased automation).
folksy music of banjos in the background, Franklin assured the audience that the various interests were "always gonna have to share the pie... give up portions of it. There's never gonna be enough pie to go around." Forest users would "have to share," in what Franklin promised to be "a win-win situation."545

Three months later, in July, the Forest Service publicized its 1990 Resource Planning Act Program ("The Forest Service Program for Forest and Rangeland Resources: A Long-Term Strategic Plan"), promoting the New Perspectives program as a commitment to new political values. According to the report, the New Perspectives program "commits the Forest Service to a broadened sensitivity to ecological and social values in providing a sustained yield of uses from the national forests and grasslands."546 By September, when the agency published its color, glossy brochure, "Shasta Costa from a New Perspective," the agency was apparently confident enough to promote the belief that New Perspectives was a tested and working system. In a section titled "Why New Perspectives Works," the agency told readers:

There are several advantages to managing lands with New Perspectives. First, New Perspectives conserves important elements of biological diversity on every acre, not just on the acres that are protected in wilderness. Second, by keeping the area for resource use large enough, we can use a lighter touch over a wider area to balance biological needs with social ones.547

The agency continued to spread the word, and even in the environmental, academic, and professional communities, it found tentative support. In the

547 USDA, Forest Service, Siskiyou National Forest, Shasta Costa From a New Perspective, 15.
Inner Voice, the reader could find endorsements of New Perspectives. For example, in a series on New Forestry, Ken Foss, "a Forest Service veteran of 13 years" and timber sale planner on the Wenatchee National Forest (Washington), touted New Forestry as a new "state of mind" and "a way out" of "this mess." New Forestry, he exclaimed, involved "the global perspective."

Alan McQuillan, University of Montana professor of forest planning and management -- formerly a for Champion International Corporation resource analyst and Forest Service economist -- proclaimed New Perspectives to be "Forestry for a Post-Modern Age." The new approach would open up new possibilities for meeting the various political demands -- for instance demands for "ethical considerations." McQuillan wrote:

Post-modern forestry is not abandoning reason but has already progressed beyond mechanistic science to embrace ethical considerations. ... New Perspectives opens up an exciting range of possibilities, an opportunity to flesh out an entire spectrum of styles of forest management, providing for an eclectic mix of desires. This is the promise of post-modernism.

McQuillan attended several professional association meetings in which the New Perspectives program was a main focus of discussion. McQuillan, to whom the terms "new perspectives" and "new forestry" were "becoming interchangeable," wrote that "New Forestry, like perestroika, has attained a level of popular support within the profession's public sector from which
there can be no retreat."  

For example, New Perspectives was prominent at an industry-sponsored Western Forestry Conservation Association (WFCA) Annual Meeting in Coeur D’Alene, Idaho (December 1990), at the Montana Society of American Foresters’ Annual Meeting (March 1991), at the Western Forest Economists’ Annual Meeting in Wemme, Oregon (May 1991), where the New Times, New Perspectives video was shown, and at the Wilderness Society’s “Defining Sustainable Forestry” workshop (January, 1992). Subsequent meetings also focused upon New Perspectives, including WFCA’s “Seeking Common Ground” conference in Portland, Oregon during February 1992 and again at the annual Montana SAF meeting in Kalispell during March.  

Meanwhile, Salwasser was continuing his own campaign to promote the program, which he claims was gaining support. In December, 1991, the Forest Service had “repeated, in Roanoke, Virginia, what we had done in Philadelphia.” He added:

In, Philadelphia we’d invited a bunch of people in to help us shape what we ought to do; in Roanoke, two years later, we brought some of the same people back, but not entirely the same group, but the same type of venue, where we had half non-Forest Service people and we did a show and tell and basically said “here is what we have put together in the field. Here are the kinds of things people have done, here’s what it looks like.” ... And in the workshop setting after the show-and-tell, the message came back strongly to us: “adopt Ecosystem Management as the Forest Service operating philosophy, and focus around a set of principles.”

554 Ibid., 212, fn.6.  
555 Ibid., 212, fn.6.  
In early 1992 the New Perspectives staff was willing to advocate for expanding the scope of its activities. According to Salwasser, "as we got well into this and it became increasingly clear that this set of ideas and principles was practical, was working alright, and there was enough field evidence that we could embrace the set of principles as an operating philosophy." 

At the same time, the Washington Office was promoting the New Perspectives on an international basis. Al West, Associate Chief for Private and State Forestry, "was involved as the lead forest person with a Food and Agriculture Organization (FAO) group, United Nations FAO Regional Commission on Forestry. FAO's got these regional commissions all over the world, and we're in the North America Commission with Mexico and Canada." West arranged for the United States presentation at the North American Commission meeting to focus upon the Forest Service New Perspectives program. Hal Salwasser also "enlisted the help of a person in research, named Tom Snellgrove, who is involved with forest products and harvesting systems and Doug MacCleary, who is an Assistant Director of Timber Management, and who has spent a part of his career as a political appointee as the Deputy Assistant Secretary in the Agricultural Office, overseeing the Forest Service." According to Salwasser, the "paper was given in February of '92 in Cancun at the regional commission meeting and Dale was there," where it was "well received" by the Mexican and Canadian delegations. 

557 Ibid., 5.
558 Ibid., 6.
By March 1992, the New Perspectives team was ready to move beyond pilot projects and encourage the directorate to adopt the program on a full-scale level. It would make a proposal to agency professionals at a Forest Service workshop in Salt Lake City. Because of the highly charged political atmosphere, Salwasser decided to proceed cautiously, assembling a team to draft the politically testy proposal and getting approval through the Washington office directorate before presenting it to the meeting. Salwasser later recalled using an address given by Jim Overbay, the Deputy Chief for National Forest System, at a "soils and water type" workshop in Salt Lake City, March of 1992 as a forum for introducing new perspectives as a policy. Overbay noted:

And we used the opportunity of his key note address to this workshop – it was a soil and water type workshop – to lay out as a trial balloon, so to speak, the idea that it was time to adopt these principles as Forest Service policies and not just a pilot program. A team of people worked on writing his speech. Many of the people who worked on writing his speech were the same people who developed the charter for the New Perspectives program about a year and a half earlier.559

Because Salwasser and Overbay perceived the event – introducing New Perspectives as a major policy initiative to a group of agency professionals – to be politically sensitive, they routed the speech through the Washington Office staff for approval, an unconventional process. According to Salwasser, "we knew that this speech was a policy sensitive kind of speech."560 He added that the speech was important insofar as it tested internal receptivity to the New Perspectives framework which ultimately metamorphosed into "Ecosystem Management." Of the event, Salwasser reminisces: "Internally

559 Ibid., 5.
560 Ibid.
that was a major deal. That was the speech that got the Forest Service ready to accept what Dale did a couple of months later."561 Salwasser and his team had prepared the way for the agency to adopt New Perspectives, or (ultimately), at least a similar program under a new name, based on principles synthesized during the program’s short two years of existence.

The New Perspectives promotion touched upon many politically significant signifiers — “Science,” particularly the language of “landscape ecology” and “conservation biology,” “Adaptive Management,” health and diversity, and an end to “legal gotcha” to name a few. The controversial issue of clearcut logging was conspicuously absent, which was no accident. According to Salwasser, the directorship was “trying to maintain a distance between the New Perspectives, which was managing land for diversity with science/manangement teamwork — with partnerships and all that stuff — and clear cutting which is technical practice. But it didn’t work. The switch away from clear cutting kept getting cast as a part of what New Perspectives was all about.”562

Clearcutting was not merely a “technical practice,” it was part of a larger production system vigorously promoted (as a political agenda) by the timber industry and opposed by environmental activists. Thus, any policy on clearcutting was a political product, much like the political products associated with the New Perspectives program, reformed resource policy, for instance. The boundaries between the two policy areas remained unclear. As the controversy around the Forest Service evolved, the issues involved in

561 Ibid., 16.
562 Ibid., 10.
New Perspectives and those around clear cut logging became more tightly associated, despite Robertson's efforts to the contrary. In August, 1991, "Senator Pryor, alarmed about clear cutting in the South having an effect on forest diversity, asked to go out in the field with the Chief, on a summer day in August, Dale Robertson and Senator Pryor went for a walk in the woods." According to Salwasser, Dale Robertson went "for a walk in the woods in Arkansas" and came out with "an agreement to change the clear cutting policy of the agency." 563

Increasingly, Robertson was having to cope with demands for change within the agency. Congressional members were directly summoning him to force the Forest Service to discontinue practices known as conventional for 50 years. By political circumstance, clear cut logging was a New Perspectives issue, and in the near future, it would be an ecosystem management issue.

Criticism and Dissent

The New Perspectives program itself emerged through a process of political negotiation, maneuvering, and propagandizing, mainly by members of the Washington office — who resided in a hostile political milieu — but also involving officers in the field and regional offices. As could be expected, it drew criticism and opposition from the timber industry as well.

An early criticism from the "old school" of forestry came from William Atkinson, head of the forest engineering program at the Oregon State

563 Ibid., 9.
University and the manager of its School of Forestry's experimental forest Atkinson presented a paper titled "Another View of New Forestry" at the May, 1990 Annual Meeting of the Society of American Forests in Eugene, Oregon. The paper, which was as much a bitter commentary on the effects of environmentalism on national forest management as it was a critique of New Forestry and its application (i.e., New Perspectives), lambasted the program for its political nature as well as what Atkinson perceived as its lack of technical and scientific credibility. Atkinson began his speech with a sarcastic tone, arguing that the system was not new, but rather, "it has been around for years — we have just called it a 'Real Estate Cut'."564

Portraying the program as being technically absurd and untenable, Atkinson directly alluded to it as a product of academics out of touch with the realities of forestry. He dismissed its application as a product of political expediency, and further noted:

You don't see anyone asking forest engineers, forest economists or practical operating people what they think about New Forestry. I have been wondering "why this lack of debate?" and have come to the conclusion that nobody took these people seriously. New Forestry was dreamed up by academics working as a closed group on the HJ Andrews Forest. Most of us felt that nobody in their right mind would actually practice this stuff. But it turns out today that not only are people applying New Forestry across the landscape but proponents of New Forestry have been successful in catching the ears of some very influential people. People such as the Chief of the Forest Service, supervisors of National Forests and regional foresters. The academics had a program when the Forest Service badly needed a program. So now we are all charging off to practice New Forestry.565

565 Ibid.
Atkinson claimed that this political "charging off and practicing something new in forestry" was an example of a "lemming effect," where "we all move in the same direction at once without a whole lot of thought and caught up in the spirit."\textsuperscript{566}

Atkinson developed "five points" to his argument, the first being that "New Forestry is obsolete."\textsuperscript{567} Here, Atkinson criticized the agency's redefinition of multiple use to mean "managing for several uses on the same piece of forest land."\textsuperscript{568} According to this argument, Congress had already rejected this view in the 1960s and 1970s. At best, new forestry was an ill attempt at residing between these two approaches to multiple use. His second point was that new forestry obscured "the Real Issue," which was "a loss of land base for commercial forestry," resulting from the political appropriation of the landscape, especially by "resource specialists." According to Atkinson, a "major problem that we have in forestry today is the locking up of our timberlands, which results in the loss of commercial forest land base. Contributing to this loss of land base are the various resource specialists (fisheries and wildlife biologists, hydrologists, etc.) who are carving out their own set of land withdrawals."\textsuperscript{569}

Next, alluding to a looming timber famine in Oregon, Atkinson sarcastically lamented that "the wood supply situation is too serious for Hobby Silviculture."\textsuperscript{570} According to Atkinson, "we are in deep sheepdip

\textsuperscript{566} Ibid.
\textsuperscript{567} Ibid.
\textsuperscript{568} Ibid.
\textsuperscript{569} Ibid., 3.
\textsuperscript{570} Ibid.
regarding wood supply in Oregon."\textsuperscript{571} In an emotional summary appealing to the specter of social collapse, the author claimed: "This is a shocking situation! We are looking at nothing less than social calamity."\textsuperscript{572} Then Atkinson claimed that the application of new forestry was a technical "disaster," owing to increased harvesting costs, "the loss of revenue and decreased yields," windfall damage, "damage to residual trees from logging and site preparation," and hazards to worker health from snags and blowdowns, in addition to environmental concerns such as soil compaction.\textsuperscript{573} Atkinson's recommendation, articulated in his final point, was to "modify plantation forestry" — including the continuation of clearcutting: "I think we ought to use clearcuts except in areas that are visually sensitive."\textsuperscript{574}

One of Atkinson's most poignant arguments concerned the fast tracking of new forestry in defiance of conventional scientific process. According to Atkinson, conventional, science-based research management, moved in an orderly process from constructing a "research hypothesis," to experimentation, to statistical tests, to conclusions, to interpretation, to field trials, to "evaluation and change," and finally to "operational implementation."\textsuperscript{575} Atkinson wrote that new forestry practitioners have replaced much of this process with the production of substanceless political rhetoric — "an end run around the right way to establish new practices." He added:

\textsuperscript{571} Ibid.
\textsuperscript{572} Ibid.
\textsuperscript{573} Ibid., 10-14.
\textsuperscript{574} Ibid., 14.
\textsuperscript{575} Ibid., 9.
They start with a research hypothesis, experiment, draw a conclusion and jump right into operational implementation on a large scale. And in between is a great deal of hype with scientists running around the halls of Congress, banging on doors in order to get their system in place. Completely lacking is the operational testing that is needed.\textsuperscript{576}

Atkinson restated his critique in a winter 1992 article titled, “Silvicultural Correctness: the politicalization of Forest Science,” in *Western Wildlands* (published by the University of Montana’s School of Forestry). He concluded that forest managers could and would have to choose between selfishness, emotion and politics on one hand, and science and objective management on the other — the new versus the old. Atkinson clearly sided with the latter:

> We have a choice. We can determine future forest practices based on personal values, emotion and selfish political expediency. Or we can apply the best available biological and operational knowledge to meet honestly debated public goals. It is time to stand up and fight for proper resource management.\textsuperscript{577}

Atkinson’s criticism of the substitution of politics for scientific process involved in new forestry and its application cut directly to one of New Perspective’s claims to legitimacy — its purported scientific basis. Other critics, particularly environmentalists, also pointed to the political nature of the program. After attending one of Salwasser’s New Perspectives workshops, AFSEE leader Jeff Debonis and other agency employees questioned whether or not the program was not another “smoke and mirrors public relations games typical of past Forest Service responses to the public’s calls for reform.”\textsuperscript{578}

\textsuperscript{576} Ibid., 8.
\textsuperscript{577} Atkinson, “Silvicultural Correctness,” 12.
\textsuperscript{578} In Hirt, *Conspiracy*, 285; Debonis, “New Perspectives,” 8.
DeBonis found the program's language to be unacceptably vague and lacking in support from the Washington office. He wrote:

There seem to be no specifics from the Washington Office about what the Forest Service will do to become a more "environmentally sensitive" organization. The New Perspectives initiative appears to be a volunteer effort on behalf of individual forests and districts to do what they can to buck the status quo. Other than Hal and his NP staff, there doesn't appear to be a real push from the WO to really change the status quo from the top.579

In Sierra magazine, Peter Zuckerman wrote, "Working in the gray area between preservation and all-out logging, New Forestry was devised to satisfy demands both for healthy forests and for an adequate wood supply. That is precisely its seductive appeal and its gravest threat."580 In regard to the New Perspectives program in Ouachita National Forest, Arkansas, the Sierra Club's southern plains representative proclaimed, "It's just the same old clearcutting with a little gloss. ... New Perspectives? We call it new PR."581 Senator Patrick Leahy (D-VT), chairman of the Senate Agriculture Committee, in Congressional hearings in April 1991, criticized the agency, exclaiming that "You cannot have 'New Perspectives' and at the same time have a 66 percent increase in the Green Mountain's timber sale program. That is contradictory and it has to stop."582 Despite Salwasser's promotion and New Perspectives' apparent "popular support within the profession's public sector," skeptics remained, within industry as well as within the environmental groups.583

580 Zuckerman, "New Forestry or New Hype," 41.
581 Ibid., 67.
582 Leahy, in Hirt, Conspircacy, 285.
583 McQuillan, "Cabbages and Kings," 192.
Concluding Remarks

Criticism notwithstanding, Salwasser continued to market New Perspectives, which, soon enough, would evolve into Ecosystem Management. Robertson's and Salwasser's Cancun New Perspectives speech went well, as had others, and advocates of its methods continued to be emboldened. New Perspectives staff -- especially Salwasser -- continued to press Robertson to expand the scope of the program as well as adopting the "terminology of Ecosystem Management," which was soon to supplant New Perspectives. According to Salwasser, "I don't recall that we were offering [New Perspectives] at the time as an alternative -- as an Ecosystem Management. But clearly the Ecosystem concept was in our minds and maybe even in the writings if you pull up some of the old documents from that time. Even the charter, you may find Ecosystem in there."\(^{584}\) The New Perspectives program was in place, its principles and terminology almost worked out, and all that awaited the transition to "Ecosystem Management" was a policy decision by Chief Robertson and his superiors.

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\(^{584}\) Salwasser, "Interview," 3.
Chapter 8
ForestWorld, a Policy Spectacle

To live and let live is the public's motto,
And it's the public that I want to please.
The tent is up, the stage is set,
People are ready for a real treat.
They're sitting here already, open-eyed,
Placid, and waiting to be wonder-struck.
I've learned to give the public what it wants,
But never before have I been so embarrassed:
Of course, they're not accustomed to the best —
But just the same, they've read an awful lot!
What can we do to have things fresh and new,
Significant and entertaining too?

— Goethe
Manager speaking to the
Poet, Prelude to Faust

Several people involved with the creation of ecosystem management — for instance, Jerry Franklin, George Leonard, Hal Salwasser, and Jack Ward Thomas — have suggested that the New Perspectives program served as a bureaucratic pilot project to ecosystem management. But, high profile as it was, its inception did not signal a major policy shift, but more of a policy experiment — a sort of political adaptive management. The actual policy shift required the kind of political pressure that soon came to bear upon the Forest Service and its Chief, Dale Robertson. This chapter will trace that shift in the context of politics internal to the agency, as well as the politics of national and international politics from the standpoint of the presidency.


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Robertson Bites the Bullet

In March, 1992, Forest Service Chief Dale Robertson "was still not ready to accept Ecosystem Management terminology," nor was he "comfortable with acknowledging Ecosystem Management as an operating philosophy." On the other hand, through the promotional efforts of Hal Salwasser and other New Perspectives staffers, the "Ecosystem Management" moniker was gaining support in the Forest Service. Even Salwasser proclaimed, "people were talking about it more openly. ... There were rumblings from field units here and there. And obviously in the scientific field the concept had been around for at least a decade, because there were even books written about it." Salwasser and the New Perspectives team soon convinced themselves that the time was right to adopt ecosystem management as official Forest Service Policy. In Roanoke, Virginia, where the Forest Service had organized a New Perspectives "workshop," Salwasser recalls, "after the show-and-tell, the message came back strongly to us: adopt Ecosystem Management as the Forest Service operating philosophy, and focus around a set of principles." Salwasser continued to lobby Robertson, and by the time of the FAO Regional Commission Meeting, the Chief had somewhat softened his position, perhaps influenced by favorable response from the Canadian and Mexican delegation.

586 Salwasser, "Interview," 8.
588 Salwasser, "Interview," 8.
regarding the “New Perspectives” paper. According to Salwasser, the paper, which outlined the Forest Service New Perspectives program, “was really well received by the Canadians and the Mexicans, who complimented the Chief profusely over what the United States was doing with this ecosystem approach.” The “ecosystem approach” was gaining enough political popularity and legitimacy for Salwasser to approach Robertson with the proposition of adopting ecosystem management as Forest Service Policy. Salwasser describes a brief meeting with Robertson on a resort beach in Mexico in which Robertson finally seemed somewhat amenable to shifting agency policy towards ecosystem management. Salwasser stated:

The afternoon after I gave this talk, I was walking along the beach there — Cancun is a phenomenal resort area — and Dale and his wife were lounging in some recliner chairs out along this beach. And I walked up to him and said “Dale, I would like to talk to you about something. The substance about what we talked about yesterday was really well received, and I used the term ‘Ecosystem Management’ frequently in explaining what we were doing. I think it’s time that the Forest Service adopt the Ecosystem Management terminology for what it is we’re moving towards, and that we shape it, rather than let somebody else define what it is and then us having to live with that definition and not being able to make it mesh with our other legal mandates, we should embrace the terminology and at least play a part in shaping what it comes to mean.” ... And my recollection was that he said, "Well, we'll think about it." It was the first time that he didn’t say “No, we won’t do Ecosystem Management, and we aren’t going to use those words.”

Salwasser had begun to sway Robertson by appealing to political pragmatism. In arguing that the Forest Service “should embrace the terminology and at least play a part in shaping what [ecosystem management] comes to mean,” he had implied that confronting the signifier of ecosystem

589 Ibid., 6.
590 Ibid., 7.
management was inevitable; ecosystem management would "come to mean" something, and the agency would be better off if it were to define that something. Robertson now had good practical reason for adopting the policy, and all he needed was permission from the presidential administration, itself feeling the nudge of national environmental politics.

Smoky and the President

Robertson would now have to reckon with administrative politics if he were to move the Forest Service management toward Ecosystem Management. He was aware that, before the Forest Service could ever address "a major policy issue like moving into Ecosystem Management," he would have "to get clearance through [his] political bosses -- the Assistant Secretary of Agriculture, the Secretary of Agriculture, and in this case, the White House." To Robertson, getting "clearance" involved a negotiation, depending upon the Forest Service's knowledge of what policy should be, as well as its ability to persuade his administrative superiors: "a big part of the Chief's job is to figure out what the federal policy oughta be for the Forest Service and bring around his political bosses to support that." Whichever routes influence took, Robertson ultimately had to answer to "his political bosses," who in turn were subordinate to the president -- politics as usual.

This chain of command was not new. The Forest Service is part of the executive branch, and it has been "after all, a federal bureaucracy, and

591 Robertson, "Interview," 10.
592 Ibid., 10.
accordingly, it was affected by the flow of power in the government."593 One source of this "power" is control over spending; all agencies have been subject to the powerful mechanism of executive budget review since the 1921 Budget Act, "which changed the U.S. government from a series of quasi independent departments to a government under the control of the President and his chief financial officer, the Director on the Budget which presented a unified governmental position on financial and policy matters to Congress."594

Since then, presidential administrations have been able to exercise general powers over the federal bureaucracies through such mechanisms as reviewing, enhancing, or cutting budgets, eliminating programs within an agency, instituting (or ignoring regulations) and so forth. In the case of presidential administrations and the Forest Service, "[d]espite increases in funding and personnel, the budget has been used to emphasize specific resource values and to de-emphasize others."595 Thus, a "review of changes between 1981 and 1983 shows the use of the budget system for policy purposes," the former reflecting President Carter's policy, the latter reflecting Ronald Reagan's policy, which increased budgeted timber activities, while decreasing recreation and wildlife management budgets.596

Further, laws written to govern the activities of federal bureaucracies almost always delegate authority to the Secretary of the Department in which

593 Clary, Timber, 193.
595 Frome, Forest Service, 46.
596 Ibid., 47.
the agency is situated. For the Forest Service, this means Congress has delegated administration through the Secretary of Agriculture (who governs through an Assistant Deputy Secretary). For instance, in the Multiple Use/Sustained Yield Act of 1960, Congress states that “the Secretary of Agriculture is authorized and directed to develop and administer the renewable surface resources of the national forests for multiple use and sustained yield,” while in the NFMA, Congress delegates authority to “the Secretary of Agriculture, under such rules and regulations as he may prescribe.”

In 1982 the Reagan administration used its powers of prescription in revising the Carter administration’s 1979 NFMA rules, “because Reagan administration officials felt that the 1979 regulations did not insure that forest planners adequately considered economic impacts.”

In this context, the Department of Agriculture has long since occupied an important space in the U.S. Forest Service’s Washington Office, as well as dictating to the agency through administrative orders. Speaking of the Reagan administration’s oversight of the Forest Service, policy professor Steven Yaffee writes:

Congressional inquiries are always viewed as important items for agency response, but their impact on decisionmaking can be blunted. Inquiries from Executive-level political bosses are much more serious, and Reagan administration appointees were mobilized to pressure the FS on its owl direction. For example, John Crowell, Assistant Secretary of the Department of Agriculture in charge of the Forest Service, and former Louisiana-Pacific executive in Oregon, wrote a memo to FS Chief

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598 Yaffee, Wisdom, 68.
Max Peterson in July 1981 that can only be interpreted as political pressure. 600

The memo claimed that early spotted owl set-asides, suggested by regional staffers, involved unacceptably high timber trade-offs and that “the guidelines need to be very carefully reviewed. Reduction in the number of pairs of spotted owls to be protected on each forest should be considered, and the number assigned to each forest be located in areas adjacent to similar areas in adjoining forests.” 601 Thus, the administration pursued a policy of “encouraging the resource management agencies to retrench toward their core technologies -- commodity production for the USFS and BLM, and game animal management for the FWS.” 602

The Reagan administration, in exercising its influence upon the Forest Service further instituted this practice of political control, played upon by the following administration of president George Bush. Bush, having worked the language of environmentalism into his campaign platform, would eventually depend heavily upon this influence, not only in regard with the Forest Service, but with other bureaucracies as well.

The Environmental President

In 1988, presidential candidate, George Bush, had told the press that he would be America’s premier “Environmental President.” Bush pledged, for instance, that there would be “no net loss of wetlands,” that he would

600 Yaffee, Wisdom, 65.
602 Yaffee, Wisdom, 158.
work on a global warming treaty, and that he would help to tighten clean air provisions.\footnote{Shabecoff, p. 251-56.} Upon being elected, he set to work assuring Americans that the anti-environmentalist "counterrevolution" was over. The Bush administration drafted legislation to strengthen the Clean Air Act and hosted an international meeting to begin drafting a global warming treaty. In addition, Bush appointed William K. Reilly -- who had recently directed the World Wildlife Fund -- as administrator of the EPA, and he promised to give the agency cabinet status. He publicly supported a moratorium on offshore oil drilling, and he included in his budget the money for a major reforestation program.\footnote{Ibid.}

But, soon, President Bush's policy record began to appear less environmentally friendly, as he began publicly lamenting the costs of environmental regulations.\footnote{Shabecoff, p. 252.} Soon the Bush administration's policy of actively opposing environmental regulation inspired harsh criticism. The conflict took place on many levels -- in the courts, in Congress, in the press, in the federal bureaucracies -- with the administration focusing on administrative regulations as well as legislative and litigative strategies.

A major Bush strategy was to order constraints upon an agency's regulation proposal process, largely by overseeing and reviewing proposed regulations and by instituting (through executive order) rules for accepting or rejecting the administrative statute. For instance, Bush retained two significant executive orders from the Reagan presidency limiting new
administrative laws proposals. One order required an agency to use "a formal cost benefit analysis... prior to formal proposal of major regulations, defined as having an annual impact on the economy of at least $100 million." The order required agency to determine whether or not "the potential benefits to society for the regulation outweigh the potential costs to society," and to choose whether or not to adopt them based upon the outcome of that calculus. The second order required agencies to "to develop an annual regulatory agenda for submission to OMB and to indicate how their programs were consistent with the president's own agenda." Critics condemned the orders because, first, the construction of cost/benefit analyses was a political process, and second, they gave the OMB a wide breadth of review, another political process.606

In addition to retaining the Reagan-era executive orders, the Bush administration used other working groups to oversee the introduction of new regulations or grant exceptions to old ones, with the explicit mission of encouraging "economic growth." Most notorious was the "Council on Competitiveness," headed by Vice-President Dan Quayle. In June, 1990, Bush chartered the Council to search for and eradicate regulations or grant exceptions when deemed reasonable from a business point of view. Through the "council," the administration was able to diminish the effect of amendments to the Clean Air Act that Bush supported and signed. The council also provided the context for the "wetlands dispute," wherein it attempted to broaden the EPA's definition of wetlands to open up to

606 Shabecoff, p. 219.
commercial use "between 30 and 90 percent of currently protected wetlands."  

In response, "tens of thousands" of environmentalists sent comments, opposing the policy, and scientific organizations entered the conflict. The National Academy of Sciences issued a report that recommended an end to loss of wetlands and a program for wetland restoration. Nevertheless, EPA director Reilly succumbed to political pressure and changed the definition. Eventually, the council's aggressive stance against environmental protection resulted in its members being summoned to extensive congressional hearings in 1991, which did not daunt the administration; in January 1992, Bush ordered a 90-day "regulatory moratorium," which he "continued in April for four additional months as the November election approached."  

Bush continued to pursue policy that ran counter to the environmental image he had attempted to construct. In 1991, Bush attempted to work through Congress to promote his "National Energy Strategy," which included provisions to develop oil extraction in the Arctic National Wildlife Refuge. He rejected proposed conservation measures on the advice of his economic advisors. "The nation's press portrayed the Bush plan as shortsighted and timid," and environmentalists successfully lobbied for defeat of the bill.  

During the same year, Bush led the United States into war against Iraq, bombing dozens of oil production plants as well as public infrastructure,

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607 Kraft, Environmental Policy, 145.
608 Ibid., 151.
609 Ibid.
610 Ibid., 127.
creating enormous toxic pollution in regional air and waters and further marring Bush’s environmental legacy.

**Bush and Trees**

Towards the end of his presidency, Bush’s position was clear regarding how much public old-growth forest would be open to logging: “It’s time to put people ahead of owls.”۶۱۱ By this time, Bush presented the issue in terms of “jobs versus the environment,” defining the problem as politics — or, “environmental extremists.”۶۱۲ Pursuing this policy stance, the administration refused to accept the findings of the court mandated Interagency Scientific Committee (and later, the Congressionally summoned “Scientific Panel”) or the Fish and Wildlife Service produced “Recommendations for Habitat for the Northern Spotted Owl.” Instead, it opted to construct its own plan for BLM lands and national forests, which it introduced at a news conference in July 1990 as the “Five-point Plan to Preserve Owl (sic) and Protect Jobs.” The News conference coincided with another — held directly before — announcing “the President’s decision to curtail offshore oil drilling off California, Oregon, Washington, Florida, and New England’s Georges Bank.”۶۱۳

According to one historical interpretation, the administration was responding to electoral politics: “Noone believed that the two decisions were unrelated. Rather, they appeared to give one to the environmentalists and

۶۱۱ Ibid., 169.
۶۱۲ Ibid., 169.
۶۱۳ Yaffee, Wisdom, 128.
Gubernatorial and Congressional elections were approaching, some of which would be sensitive to decisions regarding owl management or off-shore drilling. For instance, in Oregon, sensitive to the owl issue, Mark Hatfield was running for reelection, and in California and Florida, Pete Wilson and Robert Martinez, respectively, were running for governor’s seats.

The Bush administration appeared to be pursuing a “train-wreck strategy” concerning the owl issue, hoping to create a situation where either logging would virtually cease, and an agency head would convene the Endangered Species Committee (or “God Squad”), or ultimately Congress would be forced to revise the Endangered Species Act, which was up for reauthorization in 1992 (reelection year). A special reporter to The New York Times wrote a story regarding the White House rejection of the ISC owl plan alluded to this political strategy of sabotaging the ESA by dramatically raising its costs:

The reason, White House aides say, is that the Administration is intent on using the timber struggle to loosen the Endangered Species Act, which it says restricts economic development and intrudes on the lives of citizens. Saying that he wanted to bypass the law, Interior Secretary Manuel Lujan Jr. cast the struggle in the Northwest as one that put a few little owls in the path of thousands of jobs.

The problem did not go away. In January 1992, the New York Times reporting that, “politics reign at spotted owl hearing,” wrote about a turn of

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614 Yaffee’s methodology of triangulating between newspaper reports and conjecture begs the question that much of history begs: what constitutes legitimate evidence?
615 Ibid., 129.
616 Ibid., 136-40.
events wherein the EPA withdrew evidence, apparently due to political pressure:

[T]he hearings here by the panel, the Endangered Species Committee, concerning the northern spotted owl were only a few minutes old when it became dominated by internal conflicts of the Bush Administration over environmental policies. Today, in a surprise move, the EPA, which has harshly criticized Government policies that favor logging in the Pacific Northwest, abruptly withdrew from the hearings... taking with it some of the most crucial evidence on behalf of saving the owl.618

During the same month, the U.S. Fish and Wildlife Service announced that its final designated spotted owl habitat would amount to 6.9 million acres -- down from its earlier proposal of 11.6 million acres. Interior Secretary Lujan, already involved with the ESA committee, responded by announcing that he was “delaying release of a comprehensive recovery plan for the owl and convening a new task force to develop recovery alternatives.”619 In February, Lujan had announced formation of the team, proclaiming that he intended for it “to develop ways both to save the owl and to limit job losses in the Northwest timber industry,” although implementation would involve legislative changes to exempt certain timber operations from environmental laws.620 According to the Washington Post, “[t]hose alternatives presumably would entail fewer job losses,” while “jettisoning the goal of rebuilding the owl population in favor of merely stabilizing it.”621

In May 1992, the “Cabinet-level” ESA committee, which Secretary Lujan had convened and was a member of, "voted 5 to 2 to waive the requirements of the endangered species law and allow logging on 13 federally owned tracts of timberland." Lujan finally announced an alternative owl plan calling for protection of 5.4 million acres — compared to the FWS’s 6.9 million acres — as well as calling upon Congress to make changes in the Endangered Species Act, which was up for reauthorization. Without Congressional action within 60 days, and barring court interference, the plan would become law and take effect. A Newsweek article called the policy “a vote against preservation” and “a sad parable of hypocrisy and hyperbole,” characterizing it a political compromise of “complying with the ESA even as [the administration] moved to weaken it.” Calling the “God Squad” decision “pure politics,” environmentalists sued the Bush administration on procedural grounds including the neglect of more benign alternatives.

Unpopularity Polls

Apparently the strategy did not reflect well upon Bush’s popularity in this election year; the Bush administration’s public image as the “environmental president” no longer appeared so “environmental.” The New York Times published results of a May 1992 poll it had co-conducted with CBS News, remarking upon “Mr. Bush’s low ratings on environmental issues, with 31 percent [of respondents] saying they approved of the President’s

environmental policies and 55 percent saying they disapproved.\textsuperscript{625} Accurate or not, the survey portrayed Bush's public image as inadequate. According to the widely read New York newspaper:

A sizable majority of those surveyed said they felt that Mr. Bush talked more about protecting the environment than he had accomplished. Seventy percent said the President had been insincere in his expression of support for environmental issues, as against 19 percent who said they believed he had made progress.

This represents an erosion of Mr. Bush's already low standing on the environment from early in 1990, when 24 percent of those surveyed said they felt progress had been made, while 62 percent said he had just talked about the issue but had done little or nothing about it.\textsuperscript{626}

During the same month in 1992, "a Gallup poll indicated that the public disapproved of his handling of the environment by a two to one margin."\textsuperscript{627} In the midst of his re-election campaign, Bush was viewed as having failed to meet promises made in his prior campaign. According to one historical interpretation, the Bush administration was unable to depart from the strong political legacy left over from the Reagan presidency, resulting in "deep internal divisions over the direction of environmental policy" and his inability to keep campaign promises.\textsuperscript{628} By the time of the 1992 Earth Summit, where Bush's footdragging on issues of biological diversity and global warming drew strong criticism internationally as well as nationally -- the "environmental community" considered the presidency a "great disappointment."\textsuperscript{629}

\begin{footnotes}
\item[626] Ibid.
\item[627] Kraft, \textit{Environmental Policy}, 81.
\item[628] Ibid., 81.
\item[629] Ibid., 81.
\end{footnotes}
By June, 1992, President Bush was well into his re-election campaign and less than five months away from the November elections. Hoping to attract votes from white educated business types, the Bush re-election committee had to take account of environmentalist urbane political values that were popular even with many Republicans. But, by this time, Bush’s policy record was widely interpreted as anti-environmentalist. The administration needed to take speedy action to signify a concern for “the environment” without compromising his opposition to the regulation of industry and economic growth. Bush needed to present himself as an environmental anti-environmentalist, which he did not succeed in doing, at least from the perspective of environmentalists as well as some of the major newspapers. The Forest Service, however, offered him a timely opportunity for attempting this feat.

The President Goes to Rio

In 1992, the United Nations produced the Conference on Environmental Development (UNCED) — or, “the earth summit”630 — in Rio de Janeiro, Brazil, to “discuss” “sustainable development,” a “global forest convention,” “technology cooperation,” “protection of marine environment,” “man-made pollution,” “biological diversity” and “whatnot.” Later, in his address to the conference, Bush would optimistically claim that “today, an unprecedented era of peace, freedom, and stability makes concerted action on the environment possible as never before.”631

But from the beginning, conflict, not harmony, characterized the conference and preparatory meetings called "PrepCom." According to *U.S. News & World Report*, "George Bush never wanted to go to Rio. He feared that his conservative approach to environmental issues would only spark hostility from Germany, Japan, and other nations." As early as February, a Bush appointee, Curtis Bohlen, "Assistant Secretary for Oceans and International Environmental and Scientific Affairs," told the House Foreign Affairs Committee that the president would not compromise regarding "economic growth" and "economic objectives." As Bush later stated at the conference, "we realize that growth is the engine of change and the friend of the environment." Early on, Bohlen established the administration's opposition to a proposed biodiversity treaty, telling Congress, "some countries are seeking to use the convention to regulate biotechnology, a position the United States cannot accept."

In the same month, George Woodwell, director of the Woods Hole Research Center and Kilaparte Ramakrishna, the center’s senior associate for environmental law, wrote in the *New York Times* that "discussions have not gone well. The world’s poorer nations recognize that they are likely to be made the scapegoats of global warming." Concerning discussions on a forest convention, the researchers wrote, "[f]orest management is turning into one more issue over which industrialized and developing countries are fighting."

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primarily because the more "developed" countries were arguing a double standard. Woodwell and Ramakrishna wrote:

True, [tropical] forests are diverse and fascinating but they are also almost entirely in underdeveloped countries. And it is on those forests that developed nations are working hardest to impose their wills. But the north seems unable to live by the rules it wants to impose on the south: government-subsidized greed is allowing wide swaths of Canada and the northwestern U.S. to be clear-cut, and lumber companies are now maneuvering to make profits from the Siberian taiga.

As a result, a "convention on forests" has become unacceptable to many nations preparing for the Brazil conference. Now the best that seems possible is a "non-legally binding authoritative statement of principles for a global consensus on the management, conservation and development of all types of forests." That promises little.

Soon, the administration made clear its policy of blocking proposed environmental treaties on "economic" grounds. In May, Bush threatened to boycott the upcoming conference "to win concessions from most of the world's nations on a global warming treaty, eliminating language that would have required the United States to cap its emissions of carbon dioxide by year 2000 at 1990 levels." Bush refused to support fossil fuel use reductions, opting for a "'no regrets' policy where actions would be taken against the possibility of global warming only where they could be justified on some other grounds." The other nations compromised, replacing mandatory caps with voluntary "action plans" that governments would formulate to work with industry.

636 Ibid., A25.
638 Kraft, Environmental Policy, 20.
Similarly, by the time of the conference, Bush had made it known that he would not sign a “biodiversity treaty.” Standing heroically in the way of progress, he stated obtusely:

We come to Rio prepared to continue America’s unparalleled efforts to preserve species and habitat. Let me be clear. Our efforts to protect biodiversity itself will exceed the requirements of the treaty. But that proposed agreement threatens to retard biotechnology and undermine the protection of ideas. Unlike the climate agreement, its financing scheme will not work. It is never easy to stand alone on principle, but sometimes leadership requires that you do. Now is such a time.639

At issue was regulation of environmentally hazardous industries as well as “funding and mechanisms” of the specific “binding conventions” and the more general, non-binding resolutions. The U.S. News & World Report, after the conference, reported:

[Bush’s] goal, he said, was to “protect taxpayers” and resist global pressure for mass U.S. spending on ecological concerns. The United States, he declared, will spend $1.2 trillion on environmental protection over the next decade. America is “way out front,” he argued, “and we are going to stay out front, but we are not going to act like we have an open checkbook.” Bush was stepping into a “lions den” in Rio, a senior adviser said, but would stand up to extremists. “In the long run, that sells at home.”640

Bush’s intransigence formed the object for a barrage of media criticism, including a New York Times editorial, accusing the president of putting politics before environmental concerns. The Times claimed:

The “Environmental President” now seems mainly interested in becoming the “Re-elected President.” Twice in one week, on the issues of air pollution and forests, the Bush Administration has

639 Bush, p. 462.
handed down rulings that sacrifice long-term environmental concerns to short-term commercial and political interests.641

Another New York Times article wrote that the “United States has been seen by much of the rest of the world as an obstructionist on the key issues of global warming and biological diversity. The Bush Administration successfully sought the adoption of commitments to reduce emissions of heat-trapping gasses that is weaker than most other industrialized countries wanted.”642 According to another New York Times article, the administration’s stance on the treaties garnered itself international criticism. “The United States received heavy international criticism over that decision and for its refusal to sign the new biodiversity convention to preserve animal and plant life, an agreement which won the European Community’s support today.”643

As might be expected, Bush received criticism from the foreign press as well as the domestic press. “As delegates to the summit meeting began to gather in Rio de Janeiro today, the Brazilian press painted the Bush Administration as an environmental villain.” By the second week of the conference, the administration was “under attack by poor nations and out of step with Europe,” as well as being at odds with Japan.644

Bush responded by proposing to contribute money for a new program, proclaiming that the U.S. had “come to Rio with an extensive program of technology cooperation. We stand ready, government and private sector, to

help spread green technology and launch a new generation of clean
growth." The author wrote:

Seeking to counter foreign and domestic criticism of his
environmental record, President Bush presented a new program
today to conserve the world’s dwindling forests, a crucial issue at
this month’s Earth Summit in Rio de Janeiro. Standing at a
NASA research center before a huge blue photograph of the
earth taken from space, Mr. Bush said the White House would
increase its aid to other nations’ forestry programs by $150
million, to $270 million, starting in the fiscal year that begins in
October.

By the end of the conference, every one of the 165 heads of state involved
in the conference, except for Bush, had signed the treaty. Bush told the
conference, “Let’s face it, there has been some criticism of the United States.
But I must tell you, we come to Rio proud of what we have accomplished and
committed to extending the record on American leadership on the
environment,” citing “the world’s tightest air-quality standards on cars and
factories, the most advanced laws for protecting lands and waters, the most
open processes for public participation.” In addition, Bush alluded to
“concessions on a long-range plan to limit global warming.” He also
promised to “double global forest assistance,” by doubling “US forest bilateral
assistance next year” as a move toward working “together, respecting national
sovereignty on new strategies for forests for the future.” In terms of
internal environmental policy, Bush congratulated the United States for its
environmental legislation, added some ambiguous allusions to new policy
regarding clearcut logging, telling the conference that the U.S. “will reform at

646 “Bush, Trying to Counter Criticism, Offers Plan to Save Earth’s Forests,” New York Times,
June, 11, A1.

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home, phasing out clear-cutting as a standard practice on US national forests and working to plant 1 billion trees a year."650

But, at home, people had become increasingly critical of Bush regarding his environmental record. According to a *The New York Times* and CBS *News* poll, U.S. citizens were skeptical about "whether President Bush will accomplish much at the Earth Summit in Rio de Janeiro this week." This skepticism "appeared to be linked to Mr. Bush's low ratings on environmental issues, with 31 percent saying they approved of the President's policies and 55 percent saying they disapproved."651

**Robertson Comes Through**

A week before Bush's appearance at Rio, a U.S. delegation, headed by Environmental Protection Agency Director, Bill Reilly, was already in Brazil fielding sharp criticism from other delegations as well as from environmentalists shut out of the conference.652 Forest Service Chief, Robertson, in contact with Reilly, recalls that "the meeting down there... was kind of rough on the United States."653 The U.S. delegation faced international scorn regarding its policy on the major treaties in addition to its domestic policy, some of which -- including clear cutting and endangered species -- concerned the Forest Service directly. Only a week before, on May 28, U.S. District Judge William Dwyer had ruled that the agency's proposed spotted owl plan was inadequate and violated environmental law and

650 Ibid., 461.
652 Robertson, "Interview," 12.
653 Ibid., 11.
ordered the agency to rewrite the plan. The following day the judge enjoined logging millions of acres of Forest Service land in the Pacific Northwest until the plan was finished. According to Robertson:

Bill was getting beat up pretty bad in Rio from other countries about the clear cutting, well, you know, that the United States was not as environmentally sensitive as we should be and that we talked a better game than we were. He was getting beat up over clear cutting and endangered species, pollution, clean air and ... global warming and reduction of gases that pollute and contribute to global warming. That was the big issue down there.

Reilly and Robertson had established a relationship before Reilly's tenure as EPA director, during which they maintained contact. According to Robertson, Reilly "was very concerned about clear cutting, and he and I spent some time discussing that." Robertson recalls that, in the past, "Reilly and I had talked about the clear cutting issue and I think maybe Reilly [already in trouble in Rio] suggested to Clayton [Yeutter, the Secretary of Agriculture] 'why don't you talk to the Chief of the Forest Service, see if we can't get some policy on the clear cutting?" Apparently, Reilly, from Rio, called upon the help of Forest Service Chief Dale Robertson, through Clayton Yeutter. Before Bush's appearance at the Rio convention, Secretary Yeutter made a telephone call to Robertson. (Normally, the Assistant Secretary of Agriculture, in this case, John Beuter, who as acting Assistant Secretary in charge of the Forest Service, would have conducted business with the Forest Service Chief.)

According to Robertson, Yeutter asked him to "come up with some kind of a

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655 Ibid.
656 Robertson, "Interview," 11.
657 Ibid., 11. Yeutter was Secretary of Agriculture and superior to John Beutter, Deputy Assistant over the Forest Service, who was temporarily serving as "acting" Assistant Secretary. Ed Madigan became Secretary of Agriculture in October, 1992. Durbin, Tree Huggers, 120-21.
policy on clear cutting for the President for when he goes down in about a week to Rio.” Though pressed to take a major policy position “rather quickly,” Robertson felt he was in the position to collaborate, because, in Robertson’s words, “fortunately, the Forest Service had been milling this around for quite a long time.”

In Robertson’s words:

I said, “Yes, Clayton, I can give you a policy statement on clear cutting that basically says the Forest Service stopped using clear cutting as a standard silvicultural practice in the Forest Service and that it will only be used on an exceptional basis, but it won’t be due to economics.” So, he says “Great, put that together; let’s see if we can’t get this worked out in the next two or three days and the President can announce it at Rio and say we no longer will be doing clear cutting as a standard silvicultural practice on federal land in the United States.”

Robertson recalls using this request for presidential assistance as an opportunity to broach the idea of “Ecosystem Management” as an organizing principle for national forests. To Yeutter, he announced, “I’d like to announce Ecosystem Management as a policy of the Forest Service at the same time and make it clear cutting and Ecosystem Management, and I think that will go over well too.”

Yeutter was unfamiliar with the term, so Robertson explained to him, over the telephone, his conception of Ecosystem Management. Robertson recalled:

He says “what is that again?” And, I said “Ecosystem Management.” He didn’t even know what that was. And he says “tell me more,” and I kind of explained it: "it’s a more environmentally sensitive way to manage forest lands, deal with endangered species, in a much broader perspective."

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658 Robertson, “Interview,” 12.
659 Ibid., 12.
660 Ibid., 13.
661 Ibid., 13.
Robertson had alluded to an "environmentally sensitive way to manage forest lands" at a time when Bush's popularity regarding environmental policy was low. Secretary Yeutter apparently decided that the term was politically advantageous. According to Robertson:

He says "well all that sounds good; the President would like to say that." So he gave me a deadline; he said "by tomorrow morning, you have a draft over here on Ecosystem Management and clear cutting."662

The political discourse clearly had linked Forest Service clearcutting — or the relief from clearcutting — with Ecosystem Management. Robertson was now responsible for articulating this new policy direction in less than 24 hours. Having worked out some of the concepts with Hal Salwasser had helped him to prepare, and he set out to work:

So I remember, I went home, and gosh, I thought about "here's the letter I gotta send to the White House tomorrow morning at 8:00, fax it over and the President's going to look at it, Clayton's going to coordinate it with the President [and] Bill Reilly." So I thought about how to put this letter together, I actually wrote this letter, in fact I got up at 3:00 A.M. in the morning after thinking about it all night; I drafted this June 4, 1992 letter starting at 3:00 A.M. in the morning. And I drafted it and called my secretary and said "You better be at the office at 7:00 in the morning because we gotta have this fax to Clayton Yeutter by 8:00." So she came in and she typed it up. I did a little more editing, and of course I was part of all the discussions in the Forest Service up to that point. But it got down too: I had the power of the pen and I didn't have time to check with any body else. So I drafted this and then I sent it over to Clayton. He read it, and I don't know if he checked with the President or not at that point, and he says "yeah, this sounds good."663

Robertson, exercising his "power of the pen," crafted this politically timed memorandum and presented it to the administration. Robertson had

662 Ibid., 13.
663 Ibid., 14.
constructed this policy shift through unconventionally direct lines of communication, which briefly caused some dispute within the administration, but ultimately, Robertson and Yeutter’s policy initiative prevailed. While Yeutter was not available at the Department of Agriculture (because he was at the White House) to read the final draft, according to Robertson, the Department of Agriculture staff accepted the policy statement:

He says “keep it under wraps, but I think this is the way we want to go.” And by that time I hadn't even coordinated with my assistant secretary, so as soon as I got that OK from Clayton, I had to backtrack and sit down with John Beuter, who was my acting Assistant Secretary at that time, and go over it with him. John was very supportive. And it's such a major policy decision, we thought we better go down and talk to the Secretary about it. Well, we couldn't get the Secretary, but we got the Chief of Staff; they didn't like the sound of it too well. Anyway, we finally got their approval ... They finally said, “Well, we don't particularly care for this thing you're doing, but if that's what the President wants, what Clayton Yeutter wants, Bill Reilly wants for Rio, its okay with us.” Again everybody did a little editing on it. So we finalized it.664

With the document written the administration had to decide how to announce the change to the public. Ultimately, the president decided to have Robertson release the message domestically before he announced at the conference in Rio. According to Robertson:

In the mean time I kept talking with Clayton Yeutter [who was, at the time, over at the White House]; they were having a terrible time deciding if the President was going to announce this at Rio as part of his speech, or was he going to announce it here in the United States. They mulled that over for about a day. Finally Clayton called me back and he said, “Well the President has made a decision. He says that we decided you're the professional forester of the United States, Chief of the Forest Service, that you ought to announce this domestically, just ahead of the President making his speech, and he will announce

664 Ibid, 14.

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it in Rio in his speech at the Earth conference.” So that’s what we did.665

Summarizing this fast moving series of events, Robertson recalls that he “wrote the letter... on June 4th, got it signed, communicated it, announced it in the United States.” Mistakenly, Robertson recalls that Bush mentioned ecosystem management, stating that “if you’ll read his speech in Rio, he included it as one of the things the United States is doing to deal with the clear cutting issue and endangered species and the concerns about old growth forest and all of that.”666 Ultimately, Bush did not reference ecosystem management in his speech to the U.N. conference.667 He did vaguely mention “reform at home” and “phasing out clear-cutting as a standard practice on US national forests.”668

True to his word, Robertson circulated the memorandum to “Regional Foresters and Station Directors,” dated June 4, 1992, announcing the agency’s “marriage” to Ecosystem Management: “Today, I am announcing that the Forest Service is committed to using an ecological approach in the future management of the national forests.”669 The following day, linking the announcement on ecosystem management with a policy shift on clear cutting, the New York Times reported that “U.S. Forest Service field officers are being ordered today to start running the 126 national forests on an ‘ecosystem management’ basis that could reduce by 70 percent the controversial practice of clear-cutting timber and result in more

665 Ibid., 15.
666 Ibid., 15.
668 Ibid., 461.
669 Robertson, “Memo to Regional Foresters and Station Directors,” 1.
environmentally sensitive stewardship of the nation's 191 million acres of federally owned forests.” 670 The paper also implied the relationship between the dual announcement by Robertson and Bush's uncomfortable position vis-a-vis the ongoing Rio conference: “Robertson's directive... comes as the United States has been sharply criticized for a lack of leadership in the adoption of two key environmental treaties at the Earth Summit in Rio de Janeiro.” 671 The memorandum was clearly a political construction, and its contents were proportionately political.

The Memo

The memo, which announced “a new management philosophy” constructed “to deal with the clear cutting issue and endangered species and the concerns about old growth forest and all of that,” made no mention of old-growth or ancient forests, and only briefly mentioned endangered species -- not in the main text of the memo, but in “attachments.” Regarding clear cutting, the agency would not really commit to discontinuing it, but rather, would “accelerate the reduction of clearcutting as a standard commercial timber harvest practice on the National Forests.” 672 Regarding “public involvement,” Robertson proclaimed, “Like never before, the Forest Service must renew its commitment to public involvement and actively seek out and incorporate people’s views in our decisions about the management of the National Forests and Grasslands.” 673 Meanwhile, the agency was attempting

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671 Ibid.
672 Robertson, "Memo to Regional Foresters and Station Directors," 2.
673 Ibid.
to stifle participation in the form of administrative appeals. Robertson envisioned "a new higher level of dialogue or partnership with the American people" as "even more important now in view of the proposed changes in the administrative appeal process."\(^{674}\)

Perhaps the most telling feature of the memo is its ambiguity, to which Robertson referred as "room and flexibility for the professionals on the ground in working with the public to work out the many details" of Ecosystem Management.\(^{675}\) Ecosystem Management as it applied to "endangered species and the concerns about old growth forest and all of that" would be worked out by "the professionals," who would use "ecological principles" to work out the on-the-ground details. In Robertson's words, managers — the professionals — would use "the best science and close the gap between the level of scientific knowledge and its application in our day-to-day management."\(^{676}\)

Reading the memo, an observer might get the idea that Ecosystem Management was a product of scientific deliberation. After all, as Robertson claimed in the first sentence, the agency had "made good progress over the past 3 years in experimenting with more environmentally sensitive ways to manage the National Forests."\(^{677}\) The agency had "learned a lot from our field demonstration projects, research effort, university symposia, and workshops," mainly that, as far as Robertson was concerned, "ecosystem

\(^{674}\) Ibid.  
\(^{675}\) Ibid., 3.  
\(^{676}\) Ibid., 2.  
\(^{677}\) Ibid., 1.
management works." Forest resource decisions were now to follow from the scientific processes imbedded in forest planning, it seemed, and, by implication, politics were now to be put aside. In the memo, Robertson made no reference to the politics governing the situation — the politics of Congressional appropriation, executive administration, judicial decision-making, the politics of science making, nor the politics of citizen direct activism and media punditing.

In any case, by the June 25, when Robertson circulated a follow-up memo to regional foresters and station directors, the directorate had succumbed to national politics and fused the new clear-cutting policy with ecosystem management. According to Robertson, the directorate was "very pleased with the positive reaction to our new policy on ecosystem management, which includes increasing public involvement and reducing the use of clearcutting as a standard timber harvest practice." Clearly, Robertson and the directorate considered public participation in forest planning a significant issue.

The follow-up memo went on to outline the process by which the regions, forests, and ultimately, ranger districts, would work ecosystem management into planning and management. According to the memo, planners should not discontinue or undo ongoing projects. Rather, they should consider new projects using the principles and guidelines included in the June 4 memo.

678 Ibid.
679 The memo was in Robertson's name by signed by James Overbay, Associate Chief. Robertson, "Ecosystem Management, Public Involvement, and Clearcutting."
680 Ibid., 1.
Ultimately, according to the memo, amendments in the NFMA regulations and planning guides would reflect these principles.681

Concluding Remarks

Politics was determining the course of Forest Service management of its forests, and its claims to scientific rationality. Though the “professionals” and “experts” would now use the scientific language and protocol of Ecosystem Management, this itself was a political maneuver. Perhaps in seeming to neglect the politics of national forest management, Robertson appeared to have ignored the main point of ecosystem management — which was to mediate, not eliminate, the political negotiation of forest output. Or, perhaps, he did not.

681 Ibid.
Chapter 9
Plugging Up the Hole: Filling the Signifier of Ecosystem Management

Meet the new boss.
--- The Who
Who’s Next (record album)

In partaking of the political dramaturgy around the shotgun “marriage” with ecosystem management, Robertson had situated the Forest Service in the position of filling the largely-vacant signifier of ecosystem management. The agency would set out to produce ecosystem management and meet the negotiable demands of the law and the whims (and implicit whims) of Congress — while reconciling with the agenda of the president. At the time of the memo, the question of who would be president remained unanswered, a question of importance. The answer to this question would have great bearing upon Forest Service policy, which would bear the name “ecosystem management.” Thus, the shaping of ecosystem management — using parts constructed by the Interagency Science Committee, the Scientific Panel, and the New Perspectives program — remained politically negotiable.

In November, 1992, Bill Clinton defeated George Bush in the presidential election. Upon taking office, in 1993, Clinton inherited the injunction on timber harvesting on BLM and Forest Service in owl territory (imposed by Judge Dwyer, in May 1992) and faced political crisis in the forest politics of the Pacific Northwest.682 He also inherited the July 16 (1993) deadline imposed by Judge Dwyer for completing a plan for “Management for the Northern

Spotted Owl in the National Forests,” including a complete environmental impact statement with viability assessments of northern spotted owls and 32 other “old-growth associated species,” projecting the effects of the preferred alternative.683

Immediately the presidential administration confronted this political problem of reestablishing the Forest Service’s ability to manage the national forests in the Pacific Northwest. The administration divided Judge Dywer’s demands into two tasks — completing the viability assessment and constructing a forest plan. Forest Service Chief Robertson assembled a team, the Scientific Assessment Team (SAT), again led by Dr. Jack Ward Thomas, to conducting the assessments. Meanwhile, the Clinton administration began preparing a “timber summit” — a well-publicized public hearing held by Clinton and others picked by the administration — meant to produce a set goals for the upcoming planning project.684

The administration would take a direct and high profile approach to accomplish its goals of convincing the court to lift the injunction on the Forest Service’s timber program in the Pacific Northwest and resurrecting the Forest Service’s credibility. This chapter will discuss the work of the SAT, the construction of the “Northwest Timber Summit,” and the work of the Federal Ecosystem Management Assessment Team. It will conclude by pointing out the significance of the FEMAT effort in light of the Forest Service’s ecosystem management.

683 U.S.D.A., Forest Service, Scientific Analysis Team, Viability Assessments and Management Considerations, 8.
684 Shannon and Johnson, “Lessons from FEMAT.”

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Judge Dwyer’s decision required the agency to answer three questions: Did the Endangered Species Committee’s May 15 decision to allow the logging of the 13 BLM timber sales change the viability assessment the Forest Service prepared for its 1992 Final Environmental Impact Statement on Management for the Northern Spotted Owl in the National Forests? Did new information found since the 1992 EIS require revision of the selected alternative or change the viability of the owl? Would implementation of the plan lead to “extirpation” in agency planning areas of any of 32 listed species “associated with old growth”? Chief Dale Robertson had assembled “a technical Scientific Assessment Team” (SAT) to provide the assessments,” assigning Jack Ward Thomas as team leader.

Thomas and others in the Forest Service were aware that hundreds and perhaps thousands of species were associated with old-growth forests and that the agency would be better off assessing them immediately. Thomas remembers pleading his case to Jim Overbay, Deputy Chief for the National Forest System, “who assigned the team,” and Overbay cooperated. Thomas recalled:

I … said, “Look, why don’t we quit evading the real issue and answer the appropriate question. The question is: “There aren’t 39 species associated with old growth, there are maybe 900 or 1,400 of them. Let’s look at the whole spectrum of species.”

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685 Ibid., 8.
686 Thomas and Marcot, Of Spotted Owls, Old Growth and New Policies, 10; SAT, 9-10.
687 Thomas, “Interview,” 3.
Overbay said "OK, let's go." So I wrote the instructions that he would then give to us to follow.\textsuperscript{688}

Thomas then wrote the letter of instruction to himself and the Team, as he had for the ISC committee, incorporating the mandate for this expanded assessment within the "Guidelines for the Scientific Analysis Team for the Northern Spotted Owl."\textsuperscript{689}

On March 19, 1993, the new Clinton administration presented the SAT report to Judge William Dwyer. According to Thomas, the most distinguishing feature of the report was that the team had expanded the mission to include a nearly complete "catalogue" of species "closely associated with old growth," species ranging from fungi to fish.\textsuperscript{690} Though the report did not get much press attention, it was an important document because, in Thomas' view, assessing this expanded list required a process that was tantamount to an ecosystem assessment. Thomas recalls:

Now the Administration was not ready to talk ecosystems just yet. But when you consider 900 to 1,400 species and their interactions and interdependence, you are talking about ecosystems. The SAT report never made the headlines like ISC and FEMAT, but the SAT report was a truly crucial turning point. That's when we looked at all associated species. At that point everything bogged down in political controversy.\textsuperscript{691}

In all, the report included assessments of 667 species "listed as closely associated" — a dramatic increase over the original number of species Judge Dwyer had ordered the agency to assess. According to the Team, this

\begin{itemize}
  \item \textsuperscript{688} Ibid.
  \item \textsuperscript{689} Thomas, "Interview," 1,3; Overbay, James, Instructions for the Scientific Analysis Team, in U.S.D.A., Forest Service, Scientific Analysis Team, Viability Assessments and Management Considerations, Appendix 2B.
  \item \textsuperscript{690} Thomas and Marcot, Of Spotted Owls, Old Growth and New Policies, 10.
  \item \textsuperscript{691} Thomas, "Interview," 3.
\end{itemize}

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expansion was partially due to changing the definition of "associated with old growth."

The environmental Impact Statement [on Management for the Northern Spotted Owl in the National Forests] identified 32 species of terrestrial vertebrate wildlife (amphibians, reptiles, birds, and mammals) that are closely associated with late-successional or old-growth forests or components of old-growth forest. ... Our analysis refined the basis for evaluating the degree of association of these species with late-successional and old-growth forests, and expanded the evaluation to include fungi, lichens, plants, invertebrates, and fish, in addition to all terrestrial vertebrates.

The mandate of the Team was to provide a qualitative assessment and a framework for assessing the viability of old-growth species in context of various management scenarios. This assessment would not be quantitative and would rely on the judgment of Team members:

In estimating habitat associations and risks of extirpation, the Scientific Analysis Team was not expected to conduct a formal viability assessment for each forest species associated with old-growth forests. Rather, we were directed to use common sense and expert judgment and to explicitly display and discuss the process used for establishing viability ratings.

In the report, the Team argued that such "full disclosure and knowledge" of the effects on all old growth species resulting from implementation of the Spotted owl plan would be important for the plan's "selection and implementation." In addition, a broad assessment would better meet the agency's mandate to manage for biodiversity. Importantly for the future of Forest Service management, the structure of the report would provide a framework from which to produce ecosystem management: "Such a

692 Thomas and Marcot, Of Spotted Owls, Old Growth and New Policies, 10.
694 Ibid., 258.
695 Ibid., 259.
comprehensive approach lays the groundwork for a more complete approach to ecosystem management."696 Nine months after Chief Dale Robertson had committed the Forest Service to an expedient "marriage" with "ecosystem management," the agency was beginning to articulate what the term would mean.

The "Forest Conference" and FEMAT

Meanwhile, the Clinton administration was developing its political solution to the crisis in the Pacific Northwest. After replacing the retiring Chief Robertson with the new Chief Jack Ward Thomas, the administration began producing a "Northwest Forest Conference" slated for the following April 2, in Portland, Oregon, at which Clinton and Vice-president Al Gore would sit face-to-face and discuss concerns regarding the west side forests. Yaffee points to the Clinton administration's media presentation of the event, writing that "the forest conference was remarkable in several ways. It showcased the President and Vice-President of the United States, along with three cabinet secretaries, sitting around a conference table for a full day, talking domestic policy with those who ostensibly would be most directly affected by any course of action, while the rest of the nation had the opportunity to watch the proceedings on national television."697 Yaffee also refers to the political and symbolic nature of the conference, to which the Forest Service and Congress -- "some of the more major historic players in the dispute" -- noticeably were not invited. He writes, "the symbolism was unmistakable: Here was a conference focused largely on the future of

696 Ibid. Also see Thomas, "Interview," 1; Durbin, Tree Huggers, 197.
697 Yaffee, Spotted Owl, 141-42.
national forest management in the Pacific Northwest, and the chief of the FS and the elected representatives of the regions population were not at the table."698

The Clinton and Gore campaign had relied upon the promise of avoiding the "false choices" between environmental and economic issues -- particularly in regard to the political conflict associated with the Pacific Northwest "forest ecosystems."699 At the conference, Clinton revisited the political issue of "balance" -- a key signifier during this struggle -- implying that he and the people of the Pacific Northwest could devise a policy that would preserve significant wildlife and allow for logging at the same time. But, balancing continued to mean the consideration of both sides of the "loggers versus owls" issue. Clinton addressed the issue of such balance in a question to conferencees:

> How can we achieve a balanced and comprehensive policy that recognizes the importance of the forest and timber to the economy and jobs in this region, and how can we preserve our precious old-growth forest, which are part of our national heritage and that, once destroyed, can never be replaced?700

In the language of this rhetoric, the "owls versus jobs" dichotomy persisted, yet Clinton, in the same tone as the New Perspectives rhetoric, claimed that the end to the political turmoil would require substituting the choice between these uses with some sort of reconciliation. The President claimed:

> The most important thing we can do is to admit... that there are no simple or easy answers. This is not about choosing between

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698 Ibid., 141-42.
jobs and the environment, but about recognizing the importance of both.\footnote{Ibid., 6.}

A reconciliation would deliver a perpetual supply of commodities without sacrificing "forest health," a term that was beginning to find coinage in the political struggle around the national forests. In his advocacy for forest health, Clinton even went so far as to evoke its religious value (with implicit references to Christian deism): "We need to protect the long-term health of our forests, our wildlife, and our waterways. They are a gift from God, and we hold them in trust for future generations."\footnote{Ibid., 6.} A policy would have to, in Clinton's words, "produce a predictable and sustainable level of timber sales and nontimber resources that will not degrade or destroy the environment."\footnote{Ibid., 6.}

Furthermore, establishing this balance would require a change in the terms of struggle -- the interdepartmental (and intradepartmental) struggle within the federal government, explicitly, and the struggle between government and public implicitly. The shift would be tantamount to an institutional change in natural resource politics -- from an adversarial approach to a consensual approach: "We will do our best... to make the federal government work together and work for you. We may make mistakes, but we will try to end the gridlock within the federal government and we will insist on collaboration, not confrontation."\footnote{Ibid., 6.}
Before the Forest Conference, the administration had begun setting up the “Forest Ecosystem Management Assessment Team” (FEMAT) — recruiting members, renting space, and buying equipment — which Thomas was to lead. The team would include representatives from six agencies, among them the Forest Service, to construct a set of alternatives for managing the Northwest forests. Among them were Jerry Franklin, Eric Forsman, and Charles Meslow, all well known for their roles in the forest policy dialogue. The president ordered the team to synthesize the political demands voiced at the forest conference, demands which amounted to reiterations of the same values underlying the conflict over forest planning all along. The new plan would address the demands of the timber industry and its cohort of loggers and “timber communities,” while speaking to the issue of species preservation and “forest health.” Further, the project would muster scientific credibility, establish a direct line of decision-making, and conform to federal administrative and environmental law.

The Clinton administration imposed five constraints — or “criteria” — to guide the process. The first criterion limited alternatives to those that could be analyzed within sixty days, effectively limiting the options to plans already developed, for instance, those developed by the Scientific Panel. The second, third, and fourth criteria, which included risk analysis language, had to do with ensuring that the team’s solutions would “provide a medium to very high probability of ensuring species viability” in the face of timber harvesting. The second criterion stipulated that “the majority of the

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options should have a relatively high probability of successfully meeting the objectives for each of the five biological criteria" developed by the team. These sub-criteria stipulated the maintenance of viable populations of the northern spotted owl, marbled murrelets, "at-risk fish species and stocks," "other species associated with old-growth forests," and finally, "maintaining an interacting late-successional/old-growth forest ecosystem.” The third and fourth criteria stipulated that, respectively, “at least one of the options must have a medium probability rating” (for the biological criteria) and one must have a “very high rating.” Clearly, the construction of a viability assessment would be central to the report, and given the short time period allowed the team, it would rely upon further developing the assessments from the SAT report. The fifth criterion also determined that the team would construct a statement of tradeoffs, requiring that "options selected should include at least one developed from an approach focusing on species and at least one developed from an approach focusing on old-growth forest stands.”

When the team went about assembling the report, much of its work comprised of constructing options from 29 previously written plans (ranging from the 1984 regional guide to the National Forest Products Association's "multi-resource strategy," to the modifications of the ISC strategy). According to Thomas, the team merely refined the earlier ISC, Scientific Panel, and SAT reports to develop FEMAT: “So it started off as an owl plan,

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709 Ibid., III-3.
710 Thomas, “Interview,” 3.
712 Ibid., III-2.
but basically, when you look at FEMAT, it's just ISC with bells and whistles hung on it."713

To construct the options, the team used a zoning procedure, first dividing all federal lands in the three state owl region (a total of 24,261,000 acres) into two categories — "congressionally withdrawn" for wilderness, national parks, and wild and scenic rivers (6,983,100 acres) and acres to be allocated (17,278,000 acres).714  For the present, "the pie" would consist of these 17-million acres. For each option, the team would divide the contestable acreage differently according to a classification scheme using four zones, each corresponding with a general management goal (or set of goals). "Administratively withdrawn areas" would be managed for recreation, "visual protection," "certain other administrative objectives," or lands unsuitable for timber. "Late-successional reserves" — would be "protected from most management activities... though some level of silviculture might be permitted to enhance the development of old-growth characteristics." On "managed late successional areas" (only featured in options 1 and 3) agencies would allow commercial logging, but with the objective of creating "late-successional" characteristics which would allow more logging than the late successional reserves. All options allocated some lands to "Riparian reserves," which were, in general, protected from logging. (All these categories of "reserves," as well as the team's would correspond with the "patches" from the landscape ecology model.) "Matrix" would constitute "all federal lands

713 Thomas, "Interview," 1.
714 Forest Ecosystem Management Assessment Team, Forest Ecosystem Management, Table III-5.
outside the above six categories. FEMAT’s use of the term “matrix” to designate lands “outside the above” reflected landscape ecology’s coupling of “matrix” with the term (and idea of) “background.” But, given the contestability of these land uses, from a political point of view, they were not necessarily “background.”

For each of the various options, the team altered the proportion of the total land allocated to the zones, as well as altering specific management rules governing each zone. For instance, in option 1, the group designated the highest amount of land to late successional reserves — 11,495,500 acres (two-thirds of the contested acreage) — and the lowest amount to matrix — 2,830,600 acres (roughly 15%). By contrast, option 7 designated the lowest amount to late successional reserves — 5,912,600 acres (one-third the contested acreage) — and the most to matrix — 8,459,800 acres (a little under half the contested acreage). Acreage assigned to late successional reserves in the various options ranged 5,582,000 acres — roughly one-third the total contestable acreage, and acreage assigned to matrix ranged 5,629,000 — also about one-third the total contestable acreage.

The team assessed the results of the options in terms of a limited set of concerns: expected population viabilities for the various species protected under the Endangered Species Act, and timber; aside from the Clinton administrations criteria concerning species viability, the team judged that

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716 Forest Ecosystem Management Assessment Team, Forest Ecosystem Management, Table III-5.
"the economic and social implications of the options should be considered." Of the "implications," only economics was assessed in quantitative, comparative terms, and this assessment primarily concerned timber harvest -- in terms of board feet and jobs. (The team did not offer comparisons for expected range and mining uses under the different options.) The report also mentioned "Non-commodity production," which amounted to various categories within a "Recreation Opportunity Spectrum setting," with little comparative value. The report was concerned primarily with timber harvesting.

In addition to evaluating "the likelihood of maintaining sufficient habitat, well distributed on federal lands, to provide for the continued existence of viable populations of northern spotted owls and marbled murrelets," the team "performed similar assessments for more than 1,000 plant and animal species closely associated with old-growth forests." To choose which species to assess, the team used criteria that Thomas had devised for associating with "late-successional forest conditions." The assessment project depended upon the personal judgments of "more than 70 experts" serving on "14 separate assessment panels." The team set up a process (called "judgment probabilities") that allowed specialists to translate the certainty or uncertainty of their knowledge pertaining to individual species into numerical values. In addition, the team set up a process for appropriating knowledge (based upon interpretations of literature and

717 Ibid., III-3.
718 Forest Ecosystem Management Assessment Team, Forest Ecosystem Management, Table VI-1-36.
research) pertaining to a species into an evaluation of the effects of each option upon that species. According to Charles Meslow, Richard Holthausen, and David Cleaves, who were part of the FEMAT:

Each panel was asked to estimate the likelihood of four possible outcomes [on species viability] for habitat conditions on federal lands. The panel process was designed to elicit expert opinion and professional judgment. We used advice from the panel, other information, and our own expertise to make the final assessment.721

The team constructed the “outcomes” along a continuum from habitat “of sufficient quality, distribution, and abundance to allow the species population to stabilize, well distributed across federal lands” to habitat conditions that would “result in species extirpation from federal land.”722 Eighty percent likelihood of achieving the strictest outcome (most likely for viability) constituted the operational definition of viability.723

Since the criteria instructed by the Clinton administration required a diversity of effects, from requiring a majority of options to meet the biological criteria with high ratings to requiring one option to have a medium level, the team was able to establish discernible contrasts between options; in this way the team was able to make clear the trade-offs inherent -- through an agency perspective -- between the timber and wildlife associated with ancient forests. The construction also expressed choices between options in terms that would allow Forest Service and administration officials to be aware of the legal effects of agency management, at least in terms of the Endangered Species Act.

721 Ibid., 24.
722 Ibid., 26.
When May, 1993, the FEMAT working groups presented their work to the full team, culminating the previous weeks' work, they discovered that two of the eight options developed to date were unacceptable according to the biological criteria (7, and 8). Of the remaining six, option 5 offered the highest annual harvest off the "owl forests," at 915 million board feet (118,000 jobs), and option 6, the second highest, offered 774 million board feet (117,500 jobs). One billion board feet, politically, was the industry's minimal acceptable offering, and the team had failed to deliver this amount.

According to Thomas, many of the FEMAT team members were surprised at the results: "Some, including me, were stunned by the low numbers" -- particularly those concerning the timber yield.

George Frampton, Assistant Secretary of Interior for the Fish and Wildlife Service and the National Park System (and former president of the Wilderness Society), sensed that the timber supply numbers would not be politically acceptable, commenting "If that was to be the timber cut in the final alternatives, it wouldn't be acceptable." Regarding the team's scientists, Frampton commented that the scientists, too, sensed that the timber harvest quantities were politically unacceptable: "They knew what the margins were." Thomas recollects that the team had failed to find an alternative with the correct balance promised by the administration. He noted:

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725 Forest Ecosystem Management Assessment Team, Forest Ecosystem Management, VI-5, 28.
726 Durbin, Tree Huggers, 203.
727 Thomas, "Interview," 5.
728 George Frampton, in Durbin, Tree Huggers, 203.
We tried to create an array of options all the way from very strong environmental protection to high levels of timber production. And then, when we wanted some intermediate ones that cut close to the line, we could not come up with any that did not go "off the edge" on the two sides (protection and production), yet maybe it would not stand up to legal muster. The option with absolute protection of the environment probably would not be politically and economically acceptable. We needed a full array of options. But when we got through, we simply did not have any that were feasible that included production of more than 600 to 800 million board feet.\(^\text{729}\)

The team members perceived that none of their alternatives would be politically acceptable, but some of them believed that they could find a solution if given a little more time. Jerry Franklin convinced the team to attempt to produce another option that would be politically acceptable. Thomas recalls:

Jerry Franklin... rather passionately declared that we had not yet done the job. We were all tired and completely exhausted. Franklin made a plea "let's try one more option." He took the lead in the development of Option 9. The team was pooped, but he got up and said, "Come on guys, one more time." Thus Jerry Franklin "fathered" Option 9.\(^\text{730}\)

Ultimately, Franklin, whose background in silviculture established his perspective as a forester, led the effort to craft another option.

By June, they had developed "Option Nine," and in July, the team published its report, which "yielded the groundwork for the administration to chart a course through the political negotiation and maneuvering that was sure to come."\(^\text{731}\) Of all the options that would satisfy the legal conditions, particularly in context of the ninth circuit court, Option 9 would produce the

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\(^{729}\) Thomas, "Interview," 4. Thomas heavily edited this transcript, softening much of the language from the actual interview.

\(^{730}\) Ibid., 4.

\(^{731}\) Yaffee, Spotted Owl, 145.
most timber — 1.2 billion board feet — and jobs at — 119,800 jobs. Thomas sensed that Clinton would choose this alternative.732

With the option, the team delegated 7,053,600 acres to late-successional reserves and 4,853,300 acres to matrix. The team made this new option possible by redefining the zoning categories that it had established, particularly the idea of reserves.733 For instance, "Late-Successional Reserves" would not be limited to old-growth, but would, in addition, include areas with stands less than 80 years old to be "managed" (through silviculture) for old-growth characteristics.734 Furthermore, forestry management, including salvage logging and commercial and precommercial thinning, would be allowed. In FEMAT's words, referring to the west side, "Thinnings (precommercial and commercial) may occur in any stand up to 80 years of age regardless of the origin of the stand," though it would be subject to "review by an interagency oversight team to ensure that they are beneficial to the creation of late-successional forest conditions."735

The reserves were neither pristine nor inviolate, thus challenging a preservationist interpretation of biological reserves. According to Jerry Franklin, progenitor of new forestry, old-growth might not be necessary for meeting wildlife and ecological objectives, if manipulation of younger stands heeded certain structural objectives: "I don't think old-growth is that much more important or better than later stages of a mature forest in providing

732 Durbin, Tree Huggers, 205.
733 St.Clair, "Cutting it Down the Middle."
734 FEMAT, Ecosystem Management, III-21
735 FEMAT, Ecosystem Management, III-21
services to the environment. ... [I]f we are good with our forest management, we can perpetuate some of the characteristics of old growth without actually perpetuating the old-growth forest."736 (This was the promise of new forestry.)

In the “matrix” areas, between reserves, the Team included over 4 million acres that would be open to some form of logging. According to the report, Option 9 zoned over 30 percent of the remaining 8.5 million acres of “late-successional and old-growth forest” (c. 2.8 million acres) into the matrix.737 In addition, it designated over 30 percent of the remaining 4.5 million acres of “old-growth only” lands (c. 1.3 million acres) to matrix lands. The team also abandoned the Scientific Committee’s use of the “50-11-40 rule” for matrix lands, which was designed to accommodate wildlife movement, effectively loosening constraints upon logging.738 In lieu of this 50-11-40 coverage, the team used riparian zones to meet wildlife viability objectives.739 Much of the promised timber would come from the matrix old-growth.

For Option Nine, the team invented “adaptive management areas.” In these ten management areas, which ranged from 84,000 to 400,000 acres, “well distributed in the physiographic provinces,” agencies would conduct silvicultural experiments and allow commercial logging.740 These areas each

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736 Franklin in St.Clair, “Cutting it Down the Middle,” 13.
738 In the words of FEMAT, “The 50-11-40 rule ... calls for at least 50 percent of the federal forested land within each quarter township to be forested with trees averaging at least 11 inches in diameter at breast height and with a canopy closure of at least 40 percent.” FEMAT, “Objectives,” 15.
739 FEMAT, Ecosystem Management, Ch. 3; FEMAT, “Objectives,” 15.
contained diverse age and class structures and composition, including a significant amount of old growth — additional land upon which the agencies could practice New Forestry. The adaptive management areas seemed to offer a context for applying administrative promises to manage for "balance," and the team placed them in politically controversial areas — areas with old-growth near timber dependent communities. According to the report, "Most are associated with subregions impacted socially and economically by reduced timber harvest from the federal lands. The areas provide a diversity of biological challenges, intermixed land ownerships, natural resource objectives, and social contexts." Soon after Clinton unveiled the plan in July, activists began to study the maps. Many groups responded in protest to some of the allocations, some that would allow clearcut logging in prized roadless areas and others that they felt would jeopardize other ecological values. For example, they objected to designations that would allow logging in the "steepsided watershed of Still Creek east of Portland, in Mount Hood National Forest, forested with natural stands of Douglas-fir, cedar, and hemlock 80 to 100 years old." In the Siskiyous, Option 9 placed more than 30,000 acres of burned over, heavily roaded BLM plantations in a reserve while leaving several pristine roadless areas open to logging." Deputy Interior Secretary George Frampton commented that "We all knew going in that an ecologically credible plan would not produce more than 1 billion board feet," but nevertheless, he

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741 FEMAT, Ecosystem Management, III-24-25; St. Clair, "Cutting it Down the Middle"; According to Yaffee, this was "the magic of adaptive management," Spotted Owl, 146.
743 Ibid, 205.
assented to the plan. The Wilderness Society proclaimed that Option 9 was merely a political substitution for the FEMAT process — a political construction that failed to fulfill the mission of solving ecological problems: "Unfortunately, administration officials -- who were mostly interested in producing a politically correct "balanced solution" -- did not heed the FEMAT's advice."

In any case, Clinton would move ahead with the plan, but first he had to grapple with the court imposed timber injunction. The following November, the administration formed a deal with plaintiffs in the Portland Audubon Society v. Lujan case that had resulted in an injunction from logging on spotted owl land. Tom Collier, Interior Secretary Bruce Babbitt’s chief of staff, had requested the plaintiffs to release of 200 million board feet of timber (on BLM lands) from the injunction continued by Judge Dwyer of the Ninth Circuit Court in early 1992. The release apparently would demonstrate good faith on the part of the environmental groups as well as allowing Babbitt to meet his commitment to sell 2 billion board feet of timber in the first year of the Clinton administration.

Collier also used intimidation, warning the plaintiffs that without a "good-faith effort," on their part, Interior Secretary Babbit would urge the administration to immunize his plan from legal challenge through legislation. Environmentalists and strategists influencing the plaintiffs,

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744 Frampton in Durbin, Tree Huggers, 205.
746 "Lane County Audubon Society v. Jamison, 958 F.2d 290 (9th Cir. 1992)."
747 Durbin, Tree Huggers, 209.
748 Ibid., 209.
including Sierra Club Legal Defense Fund lawyer, Kevin Kirchner, took seriously the threat of the rider. Other lawyers followed the same track, and "at one point [according to Larry Tuttle, executive director of the Oregon Natural Resources Council, plaintiffs] SCLDF attorneys Vic Sher and Todd True threatened to fire ONRC as a client if Tuttle refused to go along with the deal." Malanie Rowland, a Wilderness Society attorney, advocated the deal, believing a friendly relationship with the Clinton administration was critical: "We had to have their support. If we didn't, I didn't see any ways we could hold on to our victories."749 In addition, Montana Senator Conrad Burns (R) and others were attempting to split the 9th Circuit, which had long had the reputation of being environmentally friendly. The plaintiffs went for the deal, and in April 1994, the Secretaries of Agriculture and Interior issued records of decision, (slightly modifying the plan) and issued guidelines for conducting necessary assessments and studies of management effects.750

Meanwhile, the timber industry objected to the plan for reductions in timber levels. Attacking its claim to "balance" and calling it a "problem, not a solution," John Hampton, chief executive officer of the Willamina Lumber Company of Portland, Oregon, lambasted FEMAT for usurping presidential power to assert its environmentalist biases into policy751:

Following the forest summit, President Clinton called for a plan that recognized the "human and economic dimensions of these problems"; that was "scientifically sound, ecologically credible, and legally responsible"; and that produced "a predictable and sustainable level of timber sales." Instead, the FEMAT produced a major policymaking effort to "revolutionize land management

749 Rowland in Durbin, Tree Huggers, 211.
750 Marcot and Thomas, Of Spotted Owls, 11.
in the Pacific Northwest.” This outcome was not anticipated when the president asked the “best scientists” to find ways to protect the forest environment while minimizing the human impact. The new policy developed by the FEMAT is not a balanced solution to the forest debate.752

Other industry representatives criticized the process as a product of "scientific opinion, not process," pointing to its political nature and arguing that the process was too exclusive. James Newberry, a manager for Potlach Corporation, wrote in the *Journal of Forestry*:

The FEMAT report, in large part, is the opinion of a group of scientists and not the result of a rigorous application of the scientific method. Therefore, a group composition is critical to an objective evaluation and implementable plan. I believe the FEMAT team lacked the broad perspective that would have been achieved by selecting scientists representing a variety of organizations and specialties as well as on-the-ground managers. Silvicultural expertise does not appear to be as well represented as wildlife and fisheries.753

Another critic voiced a more extreme version of the complaint that the FEMAT process had been too closed, alluding to its secrecy and evasion and accusing the team of reinstituting the environment versus timber dichotomy:

The FEMAT approach to this charge displayed all of the characteristics of technocratic self-protection: controlled access, invisible agenda, obscure language, unaccountable proceduralization [sic], and most importantly, fallback to the understood comforts of environment versus industry.754

Soon the timber industry translated this critique into a court case against the Forest Service, using the Federal Advisory Committee Act, “intended to ensure that Federal agencies treat equally all non-Federal and nongovernment interests, and not establish advisory committees consisting

752 Ibid., 25.
754 Romm, “Professional Springtime,” 47.
of preferential membership."\textsuperscript{755} By 1997, the case had not been resolved; though the government lost the case in Washington, D.C, the judge has refused to order an injunction halting implementation of the plan.\textsuperscript{756}

Concluding Remarks

Constructing the FEMAT process required a serious political effort and, ultimately, muscle from the Clinton administration. But, the politicians did what they needed to do, and the FEMAT process went on. Presumably, the benefits would include a reinstatement of some Forest Service (and hence, administrative) authority in land management in the owl forests.

Through the FEMAT process, the Forest Service (and other participants) used the logical frameworks developed by the ISC, Scientific Panel, and SAT to institute a planning structure for what it would call ecosystem management. Through the planning process, the Forest Service was be able to designate and distribute resources on the national forests. With this framework in place, the individual national forests would be able to construct or revise their own plans and presumably remain within the law. Presumably, they would be able to incorporate this process of ecosystem management into the regular Forest Service planning cycle.

\textsuperscript{755} Marcot and Thomas, \textit{Of Spotted Owls}, 12
\textsuperscript{756} Ibid., 12.
Chapter 10

Conclusion

The lordly right of giving names extends so far that one should allow oneself to conceive the origin of language itself as an expression of power on the part of the rulers: they say “this is this and this,” they seal every thing and event with a sound and, as it were, take possession of it.

— Frederich Nietzsche
Geneaology of Morals

What this history demonstrates is that, insofar as Ecosystem Management pertains to policy, political choices have produced forest policy and its related science (in the inclusive sense — the historical process and the scientific texts). Scientists have been involved, but their role has been to construct a technical process — including the rules, terminology, and information — through which politicians will struggle for and negotiate over the actual distribution of resources.757 In the words of FEMAT:

We believe the assessments of the current situation, the previous assessment of the situation, and the options presented herein are adequate to support an informed decision as to a course of action. Our work as scientists, economists, analysts, and technicians is complete. Whatever decisions that may emerge from this work are now, most appropriately, in the hands of elected leaders.758

Thus, the FEMAT team was responsible for defining the parameters of a political discourse, not for choosing which course the agencies would follow.

757 Shannon and Johnson, “Lessons from FEMAT.” Loosely speaking, FEMAT, Ecosystem Management was a “user’s guide” to ecosystem management.
758 FEMAT, Ecosystem Management, I-3.
The FEMAT did not make the distinction — directly or indirectly — between which of its options would be Ecosystem Management and which would not, because all options were Ecosystem Management options. The planning process — judging and constructing the viability assessments of several species across large landscapes, designating certain areas to "large-scale management experiments," others to "reserves," and such activities outlined by FEMAT and the earlier reports are the characteristics that distinguished it from other management styles.

The process and the language used in articulating and actualizing any of the options constitute Ecosystem Management, not any particular set of consequences, or prescriptions. The best the agency can do is make available to politicians the language and designations of resources for their negotiations — aside from its ability to lobby, which varies. In producing ecosystem management, the Forest Service was constructing a planning framework — a decision-making process with a management language (including terminology, imagery, cartography). Through ecosystem management, the Forest Service would continue to be executor of the whims of presidential and congressional politics, but it would again define the terms of the negotiation. Ecosystem management performs a mediating role; it provides a framework for classifying, mapping, and inventorying space, conceptually linking desire to prescription to activities over that space, and assessing trade-offs between activities, particularly, logging and preservation.
An important question that remains concerns what distinguishes this process and language, this paradigm, as different from the preceding NFMA model. (Recall that Ecosystem Management is itself governed by the NFMA.) Jack Ward Thomas has argued that use of tiered spatial “scales” for assessing consequences marks the difference.759 Perhaps more important is its use of the process of risk assessment for a wider variety of old-growth “associated” species viability.”760

Another important question that remains concerns “What marks this paradigm as being the same as the preceding model?” To me, the most obvious answer also links Ecosystem Management with MUSY: promises of a little for everyone. Multiple use promised that, through intensive management, the national forests could provide game, recreation, and timber. Ecosystem Management still promises a little bit for everyone — although now with a wider variety — an expanded range of values, in situ as well as output-oriented, for instance, ancient trees, habitat for rare species, loci of spiritual and aesthetic value, structural complexity, biological, diversity, and so on.

In the years since the agency’s “marriage” to Ecosystem Management, the discourse has moved in the direction of “forest health.” Jack Ward Thomas, as Chief of the Forest Service in 1995, told the 60th North American Wildlife and Natural Resources Conference (NAW), in Minneapolis, Minnesota, that “By sustaining healthy ecosystems, present and future generations may reap

760 Yaffee attributes great significance to this technology, first used in the Interagency Scientific Committee report. *Spotted Owl*, 83.
the benefits that healthy, diverse and productive ecosystems provide.” Forest “health” is key here, but its definition is somewhat vague and even circular. In the NAW paper, Thomas defines a “healthy forest” as one “that is a fully functioning community of plants and animals and their physical environment.” This would seem straightforward, but “fully functioning” turns out to be defined relative to objectives: “In this concept, fire, insects, and disease — at appropriate levels - are components of healthy forests.” But, the idea of “appropriate” follows from the political designation of “objectives of management and by the economics of management actions.”761

Health, the latest pursuit of Ecosystem Management, has to do with the productive capacities of the material conditions — the “extant biotic and abiotic influences” — available for pursuit of objectives, themselves products of political desire. In the words of Jack Ward Thomas, speaking as Forest Service Chief in 1995, “I propose that a desired state of forest health exists where extant biotic and abiotic influences do not threaten resource management objectives now or in the future — including ecosystem function.”762 Even Bryan Norton, who longs for science-based management, admits that ecosystem health is “a highly normative concept.”763 In language “appropriate” to the context, Thomas closes the signification circle, writing “the desired state of forest health exists where extant biotic and abiotic influences do not threaten resource management objectives now or in the

761 Thomas, “Forest Health,” 3.
762 Ibid., 3.
763 Norton, Toward a Unity, 193, 239.

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future." Presumably, even the timber industry would agree to this definition.

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764 Thomas, "Forest Health," 2.
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(Abbreviations: U.S.D.A. United States Department of Agriculture
U.S.D.C. United States Department of Commerce
U.S.D.I. United States Department of Interior)


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