The struggle for preservation of California's coast redwood trees has been one of the most bitterly fought environmental battles of the last decade. In 1977, the confrontation between loggers and conservationists over expansion of the Redwood National Park captured national attention. Although the nation-wide publicity was new, the underlying resource management problems had been quietly smouldering since establishment of the Redwood National Park in 1968. And while many people are familiar with the recently resolved legislative battle over the future of the park, fewer people are aware of the legal battles that occurred in the courts during the mid-1970's. This Article recounts the history of the most significant of those battles, Sierra Club v. Department of Interior.¹

The following analysis of the Sierra Club litigation and the larger controversy surrounding the cases will provide guidance to environmentalists and practitioners in several respects. First, the tragic history of the Redwood National Park illustrates the absolute necessity of preserving wilderness areas in complete ecological units. As a result of a political compromise struck by the Ninetieth Congress, the boundaries of the Redwood National Park did not reflect the ecological realities, particularly the natural watershed boundaries, of the redwood forests. As a result, few of the preservation goals of the Redwood National

¹. Sierra Club v. Department of Interior, 424 F. Supp. 172, 8 ERC 2196 (N.D. Cal. 1976) [hereinafter referred to as Sierra Club III]; Sierra Club v. Department of Interior, 398 F. Supp. 284, 8 ERC 1013 (N.D. Cal. 1975) [hereinafter referred to as Sierra Club II]; Sierra Club v. Department of Interior, 376 F. Supp. 90, 6 ERC 1561 (N.D. Cal. 1974) [hereinafter referred to as Sierra Club I].
Park Act\textsuperscript{2} have been realized; destruction of virgin redwood stands has continued apace. The lesson to environmentalists and politicians is sobering; the Redwood National Park experience suggests that if Congress is not willing to provide the resources necessary to preserve viable wilderness units, park creation may not be worth undertaking at all.

Second, the \textit{Sierra Club} litigation provides important authority on the nature of the Department of Interior's obligation to administer the national park system. The first published \textit{Sierra Club} decision adjudged that Interior holds all national parks in trust for the public and accordingly is under a duty to protect them from threatened injury. This "public trust" doctrine may prove particularly valuable to environmentalists because it provides a basis for judicial intervention \textit{independent} of any other statute or doctrine. It is applicable to any national park and any type of injury that might threaten such a park. The doctrine is substantive, not procedural, and reflects the ultimate interests at stake: protection and preservation of national parks. Thus, where improper administration of a national park results in injury to park resources, the public trust doctrine may provide a basis for judicial relief.

Finally, this Article distinguishes between those remedies appropriately granted by the judiciary and those within the prerogative of other branches of the government. While the \textit{Sierra Club} litigation unquestionably involved a serious injury to a national park and insufficient agency response, the only adequate remedies, congressional appropriation of moneys or civil proceedings against the logging companies, were beyond the province of the judiciary. Although the court and the parties to the \textit{Sierra Club} litigation invested considerable energy in an attempt to develop a remedy, the effort proved largely futile. This Article delineates the types of relief that are essentially extra-judicial and therefore best pursued through legislative or administrative agencies.

This Article will begin in section I with a discussion of the redwoods and the ecological balance necessary for their survival. Discussion will proceed to the economic and environmental developments that led to establishment of the Redwood National Park. Section II will explain how the legislative process produced a "compromise park" which had serious limitations in terms of redwood preservation, and will examine the special provisions in the Redwood National Park Act\textsuperscript{3} designed to remedy those problems. Section III will show that the anticipated resource management problems did in fact materialize in the early 1970's and that the National Park Service failed to provide the

\begin{itemize}
  \item \textsuperscript{3} \textit{Id.}
\end{itemize}
park with the necessary level of protection. This failure, in turn, led to the Sierra Club litigation.

_Sierra Club v. Department of Interior_ spanned a three year period ending in 1976 and generated three published decisions. Simply put, the case involved Sierra Club’s allegation that the management of the park failed to fulfill Interior’s legal duty to protect the park. _Sierra Club I_, the court’s first decision, addressed the Department’s assertion that it had no legal obligation to safeguard the park. The court rejected this argument, holding that Interior did have a judicially enforceable duty to take reasonable steps to prevent damage to the park. The _Sierra Club_ case then proceeded to trial on the merits. The court found in _Sierra Club II_ that the Department of Interior had failed to take meaningful and effective action to protect the park and that this failure constituted a violation of Interior’s legal obligations. The court did not grant a substantive remedy, but directed the Department of Interior to file periodic reports showing that reasonable steps were being taken to protect the park. During a year of judicial supervision, the court and the parties explored several possible avenues of additional protection, but the fashioning of an effective remedy proved elusive. At the end of that year the court in _Sierra Club III_ adjudged Interior to be in compliance with its legal duties, even though the Sierra Club had not been afforded a remedy. The thesis of this Article is that the court’s inability to fashion a remedy was caused by an incomplete and incorrect determination of the relevant issues in _Sierra Club II_.

I

BACKGROUND: THE BATTLE FOR THE REDWOODS

A. The Recreational and Economic Value of the Redwoods

The redwood is perhaps nature’s supreme achievement in the evolution of trees. The coast redwood, or _Sequoia sempervirens_, which

4. See note 1 supra.
5. 376 F. Supp. 90, 6 ERC 1561 (N.D. Cal. 1974) [hereinafter textual references to the Sierra Club case will be in this abbreviated form].
7. 424 F. Supp. 172, 8 ERC 2196 (N.D. Cal. 1976).
8. The coast redwood must be distinguished from the Sierra redwood, _Sequoia gigantea_, also known as the Sierra Big Tree. Although averaging fifty feet less in height than its coastal relative, the Sierra redwood is considered the largest of all living things. The General Sherman tree weighs an estimated 6,167 tons; the General Grant tree has a base diameter of 40.3 feet. F. Leydet, _The Last Redwoods_ 53 (2d ed. 1969). The range of the _Sequoia gigantea_ is limited to 36,000 acres of the Sierra Nevada, of which 97% is preserved in public ownership, chiefly in national parks. Dana & Pomeroy, _Redwoods and Parks_, Am. Forests, May 1965, at 3, 4. Unless otherwise specified, all references in this Article are to the coast redwood.
grows as tall as 368 feet and commonly reaches heights exceeding 200 feet, is considered the tallest of all living things. It is also among the oldest of living trees; in uncut or “virgin” forests, coast redwoods commonly reach 700 to 800 years of age and have been known to reach 2,200 years. However, the coast redwood is celebrated as much for the beauty of its forests as it is for the height or age of individual trees. As one commentator has observed:

Perhaps if you have strolled among the redwoods . . . you have been awed and humbled by the giant columns, with their ponderous strength, reaching toward the sky like pillars of a temple. With the mystic beauty and stately magnitude of the sun-filtered towering forms, the almost infinite variety of light and shade and color, and the unfolding life and beauty of the forest, the big redwoods are not looked at; they are experienced. As you advance into these splendid, silent forests, the arches of lacy green foliage narrow above you, and shade deepens into twilight. An awe-inspiring element of time pervades these living relics of the ages.

However, the coast redwood is appreciated for more than its recreational and aesthetic values; it also produces a lumber of exceptionally fine quality. Redwood is strong, light, straight-grained, and remarkably resistant to warp, fire, decay, and insects. It is attractive when used without a finish, and reveals a rich, cinnamon grain when polished.

One redwood tree can produce a huge volume of timber. These qualities combine to give redwood forests, particularly “old-growth” forests, high economic value as commercial timber. Several local economies are dependent on a continuing supply of harvestable redwood.

11. Id. at 99-100; Wernick, The Battle of the Redwoods, SAT. EVENING POST, April 22, 1967, at 91, 92; F. Leydet, supra note 8, at 53.
15. Old-growth redwood stands are of two types. “Uncut old-growth” refers to stands that have never been logged. These stands are often referred to as virgin forests, although the technical definition of a virgin forest is a stand essentially uninfluenced by human activity. Society of American Foresters, Forest Terminology 34 (3d ed. 1958). Stands that have been logged but in which substantial numbers of mature trees were left unharvested are referred to as “partial old-growth” stands. “Second-growth” refers to stands in which virtually all trees have matured since harvest.
16. In two particularly affected counties, Del Norte and Humboldt, the wood products industries accounted for 38% and 31%, respectively, of all employment in 1960. Moreover, these industries accounted for 91% and 87%, respectively, of all manufacturing employment.
The allocation of the redwood resource between harvest and preservation is the cause of a bitter and continuing battle between environmental and logging interests. This battle, and the legislation and litigation it has produced, is the focus of this Article.

B. The Ecology of the Redwoods

The coast redwoods depend on the unique environmental conditions found along the California coast. Millions of years ago the coast redwoods extended across vast areas of North America, Asia and Europe. However, climactic changes ending with the ice age eliminated most of the moist, humid habitats in which the redwoods had thrived. Today the coast redwood survives only in a narrow, irregular strip along the Pacific Ocean that extends from southwestern Oregon to an area just south of Big Sur, California, and ranges in width from five to thirty-five miles. Here the redwoods thrive in an ecosystem characterized by summer fogs, heavy rainfall, and low altitudes.

It is important that the redwoods be preserved in complete ecological units, that is, in complete watersheds. Activities in any part of this fragile ecosystem can have harmful effects on redwoods in other parts of the same watershed. As a Park Service Report prepared in connection with establishment of the Redwood National Park observed:

The climate, soil, plant and animal life of a forest stand plays [sic] an interacting role in its survival and regeneration. . . . [T]he watershed is an important ecological unit for redwoods. Consideration of flood flows, watershed orientation, storm movement and texture, nutrient and moisture relations and upland and alluvial soils indicates that the species depends not only on its immediate environment, but on the entire land unit which lends its characteristics to those of the stand.

A study of the locations of the tallest and oldest trees underlines the importance of the watershed to the redwood ecology. The tallest and most impressive redwoods are typically found in alluvial flats lying

Dana & Pomeroy, supra note 1, at 3, 4. In 1970-76, wood products industries in Del Norte and Humboldt Counties accounted for 29% and 21%, respectively, of all local employment, and 72% and 86%, respectively, of all manufacturing employment. W. McKillop, Economic Losses Associated with Reduction in Timber Output Due to Expansion of the Redwood National Park 37 (1977) (report to State of California Resources Agency, Dep't of Forestry).

17. The redwoods once existed in greater variety as well as in greater numbers. At least a dozen species have been identified from fossils. Today only three species remain—the coast redwood, the dawn redwood, which survives in modest numbers in China, and the Sierra redwood (see note 8 supra). F. Leydet, supra note 8, at 38-40.

18. R. Dolezal, supra note 10, at 103; F. Leydet, supra note 8, at 54-55.

19. A watershed is "the total area of land above a given point on a waterway that contributes runoff water to the flow at that point." H. Hanson, Dictionary of Ecology 370 (1972).

within the floodplains of nearby streams. These redwoods receive a continuous supply of nutrients from silt eroded from the upper watershed and deposited on the forest floor by periodic floods.

If these natural processes are disrupted by human activity, such as logging, the impact on the trees can be disastrous. Logging activity in the upper reaches of a watershed can affect the giant redwoods that flourish along streambeds in the valley bottoms. The activities associated with logging operations tend to disturb the soil's natural vegetative cover, leaving bare mineral soil exposed, and to disrupt natural drainage patterns by concentrating runoff in a limited number of artificial channels, such as roads and skid trails. The consequences are generally acceleration of erosion and increases in the suspended sediment concentration and the rate of bedload transport by downslope streams.

Increased stream sedimentation can be harmful in several ways. Stream sediment can cause build-up, or aggradation, of the streambed, exposing stream banks to undercutting from the raised water level. This undercutting is particularly harmful because the resulting collapse of stream banks causes a cycle of more aggradation and still more undercutting. Deposits of sediment on the forest floor, normally a source of nutrition for the redwoods, can be harmful to the trees if they are too coarse or contain too much logging debris or other organic mat-
Stream sediment can also destroy fish habitat and spawning areas. In addition, heavy storms can wash tons of gravel, rock, and debris off cutover lands and into downslope streams, tearing away streamside vegetation and toppling mature redwood trees.

While logging operations inevitably involve some soil disturbance, accelerated erosion and the accompanying environmental effects can usually be avoided if proper logging techniques are utilized. Since the impact of timber harvesting on the park is a key issue in the redwood controversy, a brief discussion of the environmental effects of different logging practices is necessary. While the severity of environmental damage that results from timber harvesting is a function of many factors, perhaps the five most important factors are the silvicultural system used, the method of tree removal, revegetation measures, the rate of harvest, and road construction practices.

The four silvicultural systems used in the United States are the shelterwood system, the selection system, the clearcut system, and the seed tree system. Under the shelterwood and selection systems, younger trees are left unharvested. Because of increased access to sunlight and soil nutrients, the uncut trees experience accelerated growth. This "release growth" is harvested later. Under the clearcut system, all of the trees in a particular area are cut in one harvest, and an "even-aged" stand is substituted. The seed tree system is a modification of clearcutting whereby isolated trees are left unharvested to allow their seeds to reforest cutover areas. Clearcutting leaves the cutover areas without vegetative cover for several years, increasing ero-


29. Gilligan, Land Use History of the Bull Creek Basin, A SYMPOSIUM OF MANAGEMENT FOR PARK PRESERVATION 42, 55 (School of Forestry, U. of Cal., Berkeley 1966). Suspended sediment increases the buoyancy of the stream, enabling the stream to carry larger materials and increasing its destructive potential.


31. For a more detailed discussion of the environmental effects of logging operations, see Comment, Regulation of Private Logging in California, 5 ECOLOGY L.Q. 139, 154-79 (1975) [hereinafter cited as Private Logging in California].

32. Silviculture is the art of producing and tending a forest. SOCIETY OF AMERICAN FORESTERS, supra note 15, at 77.

33. Id. at 21-22.


sion and presenting an eyesore. However, the selection and shelterwood systems require more frequent cutting and thinning, with accompanying soil disturbance, than do even-aged clearcut stands. In addition, cutover areas frequently experience high windthrow losses of residual trees.

The two methods of timber removal suitable for harvesting of old-growth redwood are tractor yarding and high-lead yarding. When tractor yarding is employed, bulldozers carry logs over skid trails to a landing where the logs are cut and loaded onto trucks. When high-lead yarding is practiced, a cable lifts one end of a log and pulls it to the landing. High-lead cable yarding generally results in substantially less ground disturbance than the bulldozer activity associated with tractor yarding. It is also less disruptive of natural drainage patterns. For these reasons, high-lead yarding is recommended to reduce accelerated erosion, especially on erosion-prone steep slopes. However, cable yarding is not well adapted to selection-cutting of old-growth redwoods; clearcut harvesting is thus necessitated.

Revegetation measures, the rate of harvest, and road construction practices also affect erosion and stream sedimentation. Since distur-

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36. Stone, supra note 26, at 67, 75. Where clearcutting is employed, the size of clearcut blocks can also determine the magnitude of accelerated erosion. Larger clearcut blocks generally result in more concentrated ground disturbance, more exposed mineral soil, and greater disruption of natural drainage patterns. Richard Janda, Memorandum to the Record, Attachment B, Department of Interior’s Report Pursuant to First Supplemental Order of March 18, 1976, at 3, Sierra Club v. Department of Interior, 424 F. Supp. 172, 8 ERC 2196 (N.D. Cal. 1976) [hereinafter cited as Janda Memorandum]. For a discussion of the relative merits of clearcutting, see Article, Clearcutting: Can You See the Forest for the Trees?, 5 ENVT’L L. 85, 107-25 (1974).

37. Stone, supra note 26, at 65, 66.

38. Id. at 54, 65. Selective cutting was discouraged by California’s ad valorem property tax regime, under which property taxes could be avoided for forty years if seventy percent of timber was harvested. Id. at 65-66; see CAL. CONST. art. 13, § 12-3/4 (1894, as amended 1926, repealed 1974). California has since adopted a yield tax on timber, designed, inter alia, to eliminate this disincentive. 1976 Cal. Stats., ch. 176, 293. This new property tax regime is analyzed in Unkel & Cromwell, California’s Timber Yield Tax, 6 ECOLOGY L.Q. 831 (1978).

39. Two other systems of yarding, skyline yarding and balloon or helicopter yarding, are generally not suitable for harvesting of old-growth redwood. ENVIRONMENTAL ASSESSMENT, supra note 23, at 2-38.

40. Id. at 2-39.


42. In the tractor yarding system, logs are yarded downslope to the landing. Thus the skid trails, which form a “fan” pattern converging downhill, tend to concentrate runoff and increase erosion. High-lead yarding operates in an uphill direction, and the skid trails converge uphill. The pattern formed disperses runoff, causing less erosion than tractor yarding. Stone, supra note 26, at 27.

43. Id.; accord, 1976 Hearings, supra note 24, at 218 (statement of Dr. Antony Orme). Contra, id. at 239 (statement of Alexander Henson). For a rebuttal to Henson’s testimony, see id. at 613-14 (letter from Eugene Hofsted, Jr., Arcata Redwood Co.).
bance of the soil's natural vegetative cover is a major cause of accelerated erosion, the adverse effects of logging can be substantially mitigated by promptly restoring vegetative cover to cutover land.\textsuperscript{44} Because the sediment that erodes from upslope land tends to magnify the erosion downslope, erosion can be minimized by limiting the size of harvest units and allowing cutover areas to revegetate before adjacent areas are logged.\textsuperscript{45} Damage caused by stream sediment can also be minimized by limiting the rate of harvest within a particular watershed, for the cumulative impact of multiple harvest units can greatly exceed the sum of their individual impacts if the streambed's ability to absorb additional sediment without injury is exceeded.\textsuperscript{46} Accelerated erosion can also be reduced by constructing logging roads so as to minimize disruption of natural drainage patterns.\textsuperscript{47}

Logging practices are very important to the redwood forest because their effects are long-lasting. The harvesting practices employed in one era can determine the supply of redwood timber available more than a half-century later. Logging that appears benign at the time of harvest can have devastating effects when flooding occurs years later.\textsuperscript{48} If remedial measures are not taken, cutover areas can continue to damage downslope groves for decades.\textsuperscript{49} Much of the resulting damage is essentially irreversible; a thousand-year old tree simply cannot be replaced. Unfortunately, the dynamics of the redwood ecosystem have not always been well-understood. As a result, the harvesting of redwoods has often been characterized by the unwitting creation of problems for future generations.

C. Early Efforts at Logging and Conservation

Commercial logging of redwoods started in the 1820's and had become the most important industry in California by 1900.\textsuperscript{50} For the first thirty years of this century, the annual harvest averaged over 500 million board feet.\textsuperscript{51} The early loggers evinced little concern for the effects of their practices on the environment or on the long-term availability of

\begin{itemize}
  \item \textsuperscript{44} \textit{1976 Hearings}, supra note 24, at 425-26 (prepared statement of Dr. Richard Janda).
  \item \textsuperscript{45} Letter from Peter Twight to Michael Sherwood (May 17, 1976) at 1. (Twight is a conservation and forestry consultant). \textit{See also} note 23 supra.
  \item \textsuperscript{46} \textit{1976 Hearings}, supra note 24, at 405-06 (statement of Dr. Richard Janda).
  \item \textsuperscript{47} \textit{See Curry Task Force Report}, supra note 22, at 4. Disruption of natural drainage is minimized by providing a sufficient number of properly designed and maintained culverts. \textit{Id.} In addition, cuts and fills leave mineral soil exposed and are a major source of erosion. Erosion can be minimized by reducing road width in steep areas and revegetating bare soil. Stone, supra note 26, at 27.
  \item \textsuperscript{48} \textit{See} text accompanying notes 73-82 infra.
  \item \textsuperscript{49} \textit{See} \textit{1976 Hearings}, supra note 24, at 406 (statement of Dr. Richard Janda).
  \item \textsuperscript{50} \textit{The Redwoods}, supra note 20, at 22; F. Leydet, supra note 8, at 70.
  \item \textsuperscript{51} \textit{The Redwoods}, supra note 20, at 22.
\end{itemize}
redwood timber. Many "cut and get out" operators were interested only in making a quick profit by cutting trees as rapidly as they could be sold. Few efforts were made to reforest cutover land, or even to leave the forest in a condition to reforest itself. This is not surprising; loggers saw no immediate danger of running out of the giant trees, and second growth timber was considered worthless.

Perhaps because of the apparent inexhaustability of the redwood resource, early efforts to preserve redwood groves for future generations elicited cooperation from the logging companies. The Save-the-Redwoods League, founded in 1918, developed a successful program to acquire choice redwood groves for California state parks. The logging companies helped by refraining from logging on some selected lands until the League could raise the funds to acquire the groves. The companies also donated some fine groves directly to the state. In 1928, logging interests supported a $6 million bond issue for park acquisition which provided state funds to match donations by the Save-the-Redwoods League and other private groups.

By 1964 the League had succeeded in raising over $11 million, which provided the basis for the acquisition of 102,000 acres of redwood trees and the establishment of twenty-eight state parks. These parks preserved 48,000 acres of virgin redwood trees, including many of the finest remaining groves. With the preservation of these fine groves in state parks, the notion spread that the redwoods had been "saved." Interest in a redwood national park, one of the original goals of the Save-the-Redwoods League, faded. However, in the 1950's and early 1960's, a number of developments intensified the conflict between loggers and conservationists and rekindled interest in a redwood national park.

52. K. ADAMS, supra note 13, at 48, 54-55; F. LEYDET, supra note 8, at 69-72.
53. Stone, supra note 26, at 63; F. LEYDET, supra note 8, at 72, 81.
54. There were 1,971,000 acres of redwood forests when logging began. The Redwoods, supra note 20, at 30. Many areas could supply up to 90,000 board feet of lumber per acre, and acres yielding as many as one million board feet have been found. E. Fritz, quoted in Merriam, Redwoods for a National Park (pt. 1), AM. FORESTS, Jan. 1968, at 32, 36.
55. E. FRITZ, supra note 34, at 5.
56. F. LEYDET, supra note 8, at 95-96; 1976 Hearings, supra note 24, at 183 (statement of Richard Leonard, President, Save-the-Redwoods League).
57. K. ADAMS, supra note 13, at 116.
60. THE REDWOODS, supra note 20, at 30.
61. McCloskey, supra note 59, at 56.
D. Increased Concern Among Logging Interests

In the 1950's and 1960's the logging companies' sympathetic attitude towards redwood preservation began to shift. The effects of past and present harvesting practices were combining to jeopardize future harvests. By 1963, only 300,000 acres of the original redwood forest of almost two million acres remained uncut. Eighty-five percent of the forest had been at least partially cut, and another 2-1/2% had been set aside in state parks. It was estimated the remaining old-growth redwood on private lands would be totally cutover within thirty years.

The approaching liquidation of old-growth redwood necessitated reliance on second-growth trees. However, second growth redwood is not merchantable for sixty years. Thus, the industry's ability to sustain itself was dependent on regeneration of areas cut decades before. Past logging practices, as discussed above, were not characterized by conscientious reforestation efforts. Consequently, vast areas of cutover land were devoid of redwood. The logging companies claimed to operate on a "sustained yield" basis, whereby the annual cut is determined on the basis of future supplies of old and second-growth redwood so that the level of harvest is sustained indefinitely. How-

62. THE REDWOODS, supra note 20, at 30. An additional 350,000 acres of cutover land supported some residual old growth. Id.


64. Personal letter from Michael West, California Redwood Association (April 21, 1977).

65. Sixty-year old trees do not match the mammoth size of old growth redwoods, and contain less valuable heartwood, but in other respects second-growth redwood possess the desirable qualities that make redwood marketable. Id. Redwood is one of the fastest growing of trees, and second-growth stands can produce volumes of timber per acre that compare favorably to most old-growth stands. 1976 Hearings, supra note 24, at 20 (statement of Douglas Leisz, United States Forest Service); id. at 209 (statement of Eugene Hofsted, Jr., Arcata Redwood Co.).

66. See text accompanying notes 52-55 supra.

67. For example, a survey of Humboldt County revealed that 53% of areas clearcut prior to 1961 (including non-redwood stands) had reverted to hardwood stands. D. Oswald, THE TIMBER RESOURCES OF HUMBOLDT COUNTY, CALIFORNIA 4 (1968). Hardwood timber has substantially lower market value than redwood and other softwood timber. Id. at 8. See also F. LEYDET, supra note 8, at 81.

68. E.g., Bills to Provide for a Redwood National Park: Hearings on S. 1370, S. 514 and S. 1526 Before the Subcomm. on Parks and Recreation of the Senate Comm. on Interior and Insular Affairs, 90th Cong., 1st Sess. 226 (1967) (statement of Philip Farnsworth, California Redwood Association) [hereinafter cited as Redwood Park Hearings]; see id. at 304-05 (statement of Starr Reed, Simpson Timber Co.); Id. at 242 (statement of C.D. Weyerhaeuser, Arcata Redwood Co.); Bills to Establish a Redwood National Park: Hearings on H.R. 1311 and Related Bills Before the Subcomm. on National Parks and Recreation of the House
ever, after World War II the companies began to harvest one million board feet of redwood per year, twice the pre-Depression harvest. Because of the diminishing supply of old-growth redwood and the limited supply of mature second-growth, the harvest level set by the companies could not be sustained past the late 1980's. By the 1960's the logging companies were no longer acceding cheerfully to the acquisition of additional old-growth redwood for preservation in parks.

E. Increased Concern Among Conservationists

Conservationists, like loggers, were concerned about the diminishing acreage of virgin redwood stands. They pointed out that in 1963 only fifteen percent of the original acreage of virgin redwood forest remained, and that only 2-1/2% had been preserved in state parks. Furthermore, several events in the 1950's and 1960's caused physical and aesthetic damage to some of California's finest redwood state parks, casting doubt upon the widespread notion that existing parks afforded the redwoods adequate protection. The most significant of these events was the heavy tree loss that occurred in Humboldt State Park during the floods of 1955.

The alluvial flats along Bull Creek in Humboldt State Park had supported a magnificent redwood forest, including a tree long considered the tallest on earth. In 1931, 9,400 acres of the forests along the river flats and in the surrounding slopes were set aside in the park. The remainder of Bull Creek watershed, over 18,000 acres, was left in private ownership. Between 1947 and 1955, the privately owned forests in the upper watershed were extensively logged.

Timber harvesting in Bull Creek watershed was characterized by

Comm. on Interior and Insular Affairs, 90th Cong., 2d Sess. 494 (1968) (statement of William Moshofsky, Georgia-Pacific Corp.).

69. The Redwoods, supra note 20, at 22.


71. The Redwoods, supra note 20, at 30.

72. For example, in 1962 one lumber company logged its lands right down to the highway directly across from Prairie Creek Redwoods State Park, destroying the illusion that vast uncut expanses of redwood were protected in the park. McCloskey, supra note 59, at 56. In the early 1960's the state highway commission routed a freeway through Humboldt Redwoods State Park and attempted to route a freeway through Jedediah Smith Redwoods State Park. F. Leydet, supra note 8, at 121-23.

reckless logging methods and insensitivity to environmental considerations. More than half the upper watershed was logged in less than ten years, a rate of harvest that greatly exceeded the level that the basin could withstand. Both tractor yarding and seed tree logging were used in harvesting, a combination of practices particularly disruptive to the soil. Logging roads were often constructed in a manner that increased potential for erosion. Whatever groundcover had been left by logging operations was destroyed by a series of wild fires, fed by logging debris, which burned over half of the upper basin in the early 1950's.

These practices aggravated the effects of the heavy flooding in 1955. Huge volumes of gravel and sediment were washed into Bull Creek; the resulting torrent of water and sediment immediately toppled 300 major trees. In the decade that followed, hundreds of trees were lost because of the excessive sedimentation on the forest floor and continued undercutting of streambanks. The disastrous effects of the 1955 floods, as contrasted with the generally beneficial effects of past floods, have been attributed to the extensive logging in the upper Bull Creek watershed.

The tree loss at Bull Creek taught conservationists an important lesson about ecological realities: adequate protection for the redwoods requires preservation in complete watersheds. The acquisition policy of the Save-the-Redwoods League and the State of California, which had emphasized preservation of the finest redwood groves in valley floors, was no longer viable. Conservationists began to envision a redwood national park as a means of remedying the problems with existing state parks. They believed the federal government would have the re-

74. Id. at 10.  
75. Id.  
76. Gilligan, supra note 29, at 51.  
77. See id. at 54.  
78. See Curry Task Force Report, supra note 22, at 5 (clearcutting with tractor yarding produces more soil disturbance than any other combination of practices).  
79. Gilligan, supra note 29, at 54.  
81. See note 22 supra and accompanying text.  
82. Gilligan, supra note 29, at 55.  
83. To remedy the problem in Humboldt Redwoods State Park, the State of California embarked on an ambitious program to acquire the entire Bull Creek watershed. The expansion allowed the park administration to engage in programs to protect stream banks, control gravel flow, and revegetate the upper watershed. The cost of the acquisition was over $2 million, and most of the land acquired was already cutover. Gilligan, supra note 29, at 55.  
84. The concern of conservationists was not that the coast redwoods, as a species, were in immediate danger of extinction. As one commentator observed, "The redwoods will probably exist as long as it is profitable to grow them." Article, The Redwoods: To Preserve and Protect, 5 ENV'T'L L. 283, 286 (1975). Rather, the concern was that significant groves of primeval redwood forests be preserved:
sources necessary to acquire a park of sufficient size to provide complete protection for the redwoods.\textsuperscript{85}

Thus, by the mid-1960's the stage was set for a political battle over the future of the redwoods. As the logging companies began to realize they had no redwood trees to spare, conservationists began to plan an effort to preserve substantial virgin tracts in a redwood national park.\textsuperscript{86}

II

ESTABLISHMENT OF A REDWOOD NATIONAL PARK

In 1968 Congress passed the Redwood National Park Act, which established a 58,000-acre park in Northern California.\textsuperscript{87} The passage of the Act was the culmination of a four-year political struggle and represented a compromise between several competing interest groups. Because the park boundaries were tailored to meet political needs instead of ecological realities, the drafters anticipated that problems would be encountered in administering and protecting the park. Accordingly, they granted the Department of Interior special protective powers. The following discussion recounts how these special powers and the problems inherent in the park itself were shaped by the legislative process.\textsuperscript{88}

A. The National Park Service Report

In 1963 the National Geographic Society awarded a grant to the National Park Service to study the remaining redwood forests, the preservation already accomplished, and the need for additional protec-

For no matter how vigorous, a second-growth forest is aesthetically a second rate redwood forest. There is nothing inspirational about a stand of slim young redwoods with an arbitrarily set life expectancy of 50 years or so. There is nothing unique about them either. They have a beauty of their own, to be sure—but so do young evergreens everywhere. They will never match the majesty, the mystery, the primeval beauty of the virgin redwoods, for they will not be given the chance to do so.

F. LEYDET, supra note 8, at 82-83.

\textsuperscript{85} E. Wayburn & P. Wayburn, Introduction, F. LEYDET, supra note 8, at 19, 21. A national park offered the further benefit of immunity from trespass by state highways. See note 72 supra. For a discussion of earlier efforts to establish a redwood national park, see Article, The Redwoods: To Preserve and Protect, supra note 84, at 288-92.


\textsuperscript{88} For a history of the political battle surrounding passage of the Redwood National Park Act from the perspective of an administration official, see Crafts, Men and Events Behind the Redwood National Park, AM. FORESTS, May 1971, at 20. For a history from the perspective of a park advocate, see McCloskey, supra note 59.
During the course of this study, the Park Service discovered the "Tall Trees Grove," a privately owned grove along an alluvial flat near Redwood Creek in Humboldt County. The world's tallest, third tallest and sixth tallest known trees survived in the grove. The protection of this unique stand of redwoods would surface as a major issue in the growing controversy over the park.

In September 1964 the Park Service completed its study and released a report entitled *The Redwoods.* The report warned that the integrity of existing redwood state parks was being eroded by a continuing increase in visitor use and by a "relishless eating away of existing virgin growth in the parks." It emphasized the importance of preserving redwood trees in complete watersheds, and warned that opportunities to set aside additional virgin growth in such units were rapidly vanishing. The Park Service concluded that "there is an urgent need now to shore up and consolidate the preservation position in existing Redwood State Parks, and to set aside additional acreage of virgin growth."

The Park Service study found significant stands of virgin redwood with park potential in only three areas: Redwood Creek, Mill Creek in Del Norte County, and Yager Creek. The Park Service concluded that the best opportunity for preservation of additional virgin redwood growth in a national park existed along Redwood Creek in the long, relatively narrow watershed where the Tall Trees Grove had been discovered, and in the adjacent Lost Man Creek drainage. While much of the upper Redwood Creek watershed consisted of prairie or cutover redwood, the lower watershed contained the largest uncut block of virgin redwood growth remaining in private ownership. The Park Service recommended a park of 53,600 acres in the Redwood Creek area, including nearby Prairie Creek Redwoods State Park.

The response to the Park Service report was mixed. The Sierra

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89. *The Redwoods, supra* note 20, at 5.
90. *Grosvenor, World's Tallest Tree Discovered, 126 Nat'l Geographic* 1, 8 (1964). The world's second tallest known tree was found in a nearby grove. *Id.*
92. *Id.* at 30, 36-37. See also note 72 *supra* and text accompanying notes 72-82 *supra.*
93. See text accompanying note 20 *supra.*
94. *The Redwoods, supra* note 20, at 37.
95. *Id.* For location of Mill Creek and Redwood Creek drainages, see Map 1. Yager Creek drainage is located 20 miles southeast of Eureka, California. Yager Creek attracted no interest as a site for a potential national park.
96. Hereinafter references to the Redwood Creek area will refer to both the Redwood Creek drainage and the Lost Man Creek drainage.
98. *Id.* at 42. Forty-six percent of the lands included in the proposed park had been logged over. *Dana & Pomeroy, supra* note 8, at 22. Although the Park Service made no estimates of cost, the American Forestry Ass'n subsequently estimated the cost of the proposed park at $100 million. *Merriam, Redwoods for a National Park* (pt. 2), *Am. Forests,*
Club endorsed a park in the Redwood Creek area, but recommended that the boundaries be expanded to provide more complete watershed protection.99 The Sierra Club had spent considerable time exploring the Redwood Creek area and found it to have outstanding park potential.100 The Save-the-Redwoods League, however, favored a park in the Mill Creek basin. Acquisition of the entire Mill Creek watershed had been a long-standing goal of the League, and substantial parts of the basin had already been preserved in two outstanding state parks.101 However, large areas in the Mill Creek basin remained in private hands, and the League saw the creation of a national park in the area as an opportunity to achieve its goal of complete watershed protection.102

B. The Congressional Battle Over Establishment of a Redwood National Park

The Johnson Administration, which had previously indicated support for a redwood national park, delayed submission of a proposed park bill until 1966 while it attempted to draft a bill satisfactory to all parties.103 The administration, motivated largely by financial restraints imposed by the escalation of the Vietnam war, finally endorsed a park in the Mill Creek basin.104 The administration proposed a 41,834-acre park providing complete watershed protection for redwood trees in the Mill Creek basin. The proposed park included two existing state parks

Feb. 1968, at 32, 50. As less expensive alternatives, the Park Service also proposed parks of 39,329 acres and 31,750 acres. THE REDWOODS, supra note 20, at 44, 46.


100. McCloskey, supra note 59, at 58.

101. The two state parks located in the Mill Creek drainage are Jedediah Smith Redwoods State Park and Del Norte Coast Redwoods State Park. See Map 1, p. 801.

102. McCloskey, supra note 59, at 57. Acquisition of the entire Mill Creek watershed was a realizable goal not only because substantial portions of the basin were already preserved in state parks, but because the Mill Creek basin is much more compact than the long, narrow Redwood Creek basin. See E. Wayburn, supra note 99, at 8; Map 1, p. 801.

The division between the Sierra Club and the Save-the-Redwoods League reflected in part the different focuses of the two groups. The League had long sought acquisition of the entire Mill Creek watershed, while the Sierra Club had spent considerable time exploring the newly discovered forests in the Redwood Creek area. The difference of opinion also reflected what might be called the "political temperament" of the two organizations. The Save-the-Redwoods League, a well-respected conservation group which prided itself on working with the cooperation of the logging interests, was perhaps more moderate in pursuit of its goals. On the other hand, the Sierra Club, which was at this time emerging as a leading nation-wide conservation organization, was perhaps more ambitious and militant in seeking redwood preservation.

103. McCloskey, supra note 59, at 57-58.

and would have preserved 9,190 acres of previously unprotected virgin redwood growth. The cost of the administration plan was estimated at $60 million.105

In the meantime, the Sierra Club had found several sponsors for a bill to establish a park in the Redwood Creek watershed. The proposed park was based on the earlier recommendation of the Park Service, but had been expanded to 91,000 acres, including Prairie Creek Redwoods State Park.106 The Sierra Club proposal would have preserved 32,000 acres of unprotected virgin redwood forest.107 Even so, it failed to include the entire Redwood Creek basin; over 100,000 acres in the upper basin were excluded.108 However, the Sierra Club believed that Redwood Creek presented the best opportunity to preserve significant new areas of virgin growth in a national park. Cost was estimated at between $150 million and $200 million.109

With two competing bills to establish a redwood park before the Congress, a long, bitter legislative battle commenced in 1966.110 Opposition from logging companies and the economically affected commu-

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105. S. Rep. No. 90-641, 90th Cong., 1st Sess. 27, 29 (1967), partially reprinted in [1968] U.S. CODE CONG. & AD. NEWS at 3906 [hereinafter cited as 1967 S. Rep.]. The administration actually submitted two bills to establish a redwood national park. On February 23, 1966, the Secretary of Interior proposed a 39,264-acre park, which was introduced as S. 2962, 89th Cong., 2d Sess. (1966). Id. at 3. On March 11, 1967, the Secretary proposed a 43,434-acre park, which was introduced as S. 1370, 90th Cong., 1st Sess. (1967). Id. at 27. Both proposed parks included a small 1,600 acre tall-trees unit in the Redwood Creek drainage Id. at 3, 27. S. 1370 is reprinted (as transmitted by the Secretary of Interior) in id. at 30.

106. 1967 S. Rep., supra note 105, at 24. Although the Sierra Club proposal called for 91,000 acres, its sponsor, Sen. Metcalf, reduced the size of the park to 90,000 acres. Id.


108. Merriam (pt. 2), supra note 98, at 35. In order to protect the park from private activities in the Redwood Creek basin, the Sierra Club bill provided:

The Secretary is also authorized to define and acquire, by purchase, donation, or otherwise, easements on lands within any watersheds tributary to the park for the purpose of regulating land treatment practices thereon to improve the supply, quality, and reliability of water in the park and to protect the park from flooding, channel erosion, and gravel movement.


ties was fierce. Although there was broad national public support for establishment of a redwood national park, the division among conservation groups prevented effective mobilization of this support. In 1967 Senator Thomas Kuchel, the original sponsor of the administration bill, worked out a compromise in an attempt to break the stalemate. The compromise bill, introduced as S. 2515, would have established a 25,970-acre park unit in the Mill Creek area and a 35,684-acre unit in the Redwood Creek area. The proposed national park included three state parks and preserved 12,215 acres of unprotected virgin redwood growth, mostly in the Redwood Creek area.

The compromise bill provided something for each of the main parties to the dispute. The economic impact of the park was mitigated by spreading the effect of land acquisition among four lumber companies. The compromise bill included more virgin redwood growth than the administration bill and was less expensive than the Sierra Club bill. By including portions of both the Redwood Creek and Mill Creek basins, the bill drew widespread support from conservation groups. However, S. 2515 failed to provide meaningful watershed protection for any unit of the park. The Tall Trees Grove was particularly vulnerable; it was included in a long, narrow corridor along Redwood Creek. The surrounding watershed was left in private hands. This was the first manifestation of what has come to be known as "the worm."

111. See Butcher, A Redwood National Park, NAT'L PARKS MAG., Feb. 1965, at 4, 5. For discussion of the economic dependence of two Northern California counties on the forest products industry, see note 16 supra.
113. McCloskey, supra note 59, at 61.
116. Id.
117. Id. at 4, 5.
118. Id. at 5. The companies affected by park acquisition were Arcata Redwood Co., Simpson Timber Co., Miller-Rellim Redwood Co., and Georgia-Pacific Corp. (since acquired by Louisiana-Pacific Corp.) Id. at 4-5. It was feared that the administration bill would have put Miller-Rellim out of business. Id. at 5. The Sierra Club bill, it was feared, would have done the same to Arcata Redwood Co. Redwood Park Hearings, supra note 68, at 306 (statement of Starr Reed); Rennert, House Unit Slashes Redwood Park Plan, Modesto Bee, reprinted in 14 CONG. REC. at 21400 (1968). The economic impact of the park was also mitigated by exchange of land in the Northern Redwood Purchase Unit. See notes 119, 136 infra.
120. McCloskey, supra note 59, at 61.
121. See map included in 1967 S. REP., supra note 105, at 4-5.
The compromise bill passed the Senate overwhelmingly in 1967, but ran into serious problems in the House. When S. 2515 emerged from the House Interior and Insular Affairs Committee in 1968, it had been amended beyond recognition. The House bill provided for a skeleton park of only 28,400 acres, two-thirds of which was already protected in two state parks. The bill included 5,400 acres of previously unprotected old-growth redwood.

Congress' only attempt to provide ecological protection was the inclusion in the bill of two unusual provisions. The first authorized the Secretary of Interior to modify park boundaries so as to minimize damage to the park. The second authorized the establishment of a "buffer zone" around the park. This provision allowed the Secretary to acquire interests in adjacent lands or to enter into agreements with adjoining landowners to assure that activities on adjacent property did not damage the park.

Although supporters of this redwood park bill had the votes to increase the acreage, Representative Wayne Aspinall, the powerful chairman of the House Interior Committee, prevented amendment  

122. 113 Cong. Rec. 30758 (1967).
127. Id. § 3(c). The text of a substantially identical provision included in the conference bill is set out in the text accompanying note 144 infra. The House Report explained the inclusion of the buffer zone provision as follows:

[The Committee amendment calls for and authorizes the creation of a buffer zone around the park in order to protect the trees and streams within it. The Committee listened with much sympathy to proposals for inclusion of at least one entire watershed within the park... but found the proposals infeasible because of the cost involved and because of the severe effects carrying them out would have on the local economy. It recognized, however, that damage may be caused to the margins of every park, however large or small it may be, by acts performed on land outside those boundaries and that the streams within a park, whatever its boundaries, may likewise be damaged if the land on the watershed above them is permitted to erode. The trees along the margin, for instance, may be subject to blowdown if clear cutting occurs right up to the property line, and the streams within the park may be heavily silted if proper soil conservation practices are not maintained upstream. It is for such reasons as these that the Committee wrote into its amendments a new section authorizing the Secretary of the Interior to negotiate agreements with the owners of adjacent lands and of lands on watersheds tributary to the park and, if necessary, to acquire interests in the lands which, while allowing selective logging, for instance, to go forward will require the land owner to follow practices that will, as far as possible, protect the trees, soil and streams within the park.

through a series of procedural moves. Representative Aspinall effected House passage of the skeleton park bill by minimizing the significance of its specific provisions and promising that an expanded park would emerge from the conference committee. Supporters of a redwood park bill, fearing that areas planned for park acquisition would be logged if passage were further delayed, had the little choice but to rely on Aspinall’s promise.

C. The Redwood National Park Act

When the final bill, hereafter cited as the Redwood National Park Act, emerged from the conference committee, the park boundaries, as promised, hewed closely to those in the Senate bill. The park consisted of a 20,852-acre park unit in the Mill Creek area and a 34,717-acre unit in the Redwood Creek area. Almost half the park consisted of three California state parks, subject to donation by the State of California. A total of 10,876 acres of privately owned redwood old-growth was included in the park, primarily in the Redwood Creek area. The Redwood National Park Act authorized appropriation of

128. Rep. Aspinall prevented amendment of the bill in committee by emphasizing the need for immediate passage and promising an opportunity to amend the bill on the floor of the House. When the bill reached the House floor, Rep. Aspinall moved to suspend the rules, thereby precluding amendments to the bill. Since Rep. Aspinall had the power to kill the bill completely, supporters of a redwood park bill acquiesced in Aspinall’s strategy. See also McCloskey, supra note 59, at 63.


130. 114 Cong. Rec. 21399 (1968) (remarks of Rep. Cohelan). After receiving severe public criticism for continuing to log in areas proposed for park expansion, the timber companies had agreed to a temporary moratorium on logging in areas included in certain park bills. McCloskey, supra note 59, at 62. It seemed unlikely that the moratorium would be extended beyond adjournment of the 90th Congress and, besides, the moratorium had not stopped all logging within the proposed park. Wernick, supra note 11, at 95. Approximately 3,500 acres of redwoods included in the Sierra Club bill were cut between 1966 and 1968. Bills to Establish a Redwood National Park: Hearings on H.R. 1311 and Related Bills Before the Subcomm. on Interior and Insular Affairs, 90th Cong., 2d Sess. 1811 (statement of Dr. Edgar Wayburn). Much of the correspondence surrounding the moratorium is recorded at 112 Cong. Rec. 18872-74, 21450-53, 22071-72 (1966); 113 Cong. Rec. 34802-05 (1967).


132. See note 134 infra and Map 1, p. 801.


134. The distribution of lands within the park is shown below in acres.
REDWOOD PARK CONTROVERSY

Map adapted from F. Leydet, supra note 8. Original map design by Alfred Marty, adapted by Luis G. Garcia. Copyright © 1969 by the Sierra Club; adapted and printed with permission of the publisher.
$92 million\textsuperscript{135} and exchange of certain forest service lands in Northern California for the acquired parklands.\textsuperscript{136} The Act provided that title to lands owned by the timber companies that would be included in the new park vested in the United States immediately upon enactment of the law.\textsuperscript{137} This "legislative taking" was effected in order to prevent

<table>
<thead>
<tr>
<th>PRIVATE</th>
<th>STATE PARKS</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>Old-Growth</td>
<td>Other</td>
<td>Total</td>
</tr>
<tr>
<td>Redwood Creek Unit</td>
<td>10,140</td>
<td>12,336</td>
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<tr>
<td>Mill Creek Unit</td>
<td>736</td>
<td>4,889</td>
</tr>
<tr>
<td>Both Units</td>
<td>10,876</td>
<td>17,225</td>
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</table>


136. Id. § 5 (codified at 16 U.S.C. § 79e (1976)). The Act authorized exchange of 13,632 acres of land in the Northern Redwood Purchase Unit. See 1968 CONF. REP., supra note 133, at 7; 1967 S. REP., supra note 105, at 21. The purchase unit had been acquired by the Forest Service as part of an abandoned plan to establish a 263,000-acre national forest in Northern California. Id. The exchange of these forest service lands facilitated establishment of a larger national park by reducing the cost and mitigating the economic impact of park acquisition. However, this unprecedented exchange of forest service land proved to be the most controversial provision of S. 2515 during Senate debate in 1967. See debate at 113 CONG. REC. 30745-58 (1967). After establishment of the park three lumber companies agreed to accept a total of 12,910 acres in the Purchase Unit as partial substitute for cash payment. Comptroller General of the United States, Information on the Acquisition of Lands for Redwood National Park, Appendix II (Aug. 16, 1977) [hereinafter cited as Comptroller General].
137. 1968 CONF. REP., supra note 133, at 7; see Act of Oct. 2, 1968, Pub. L. No. 90-545, § 3(b)(1), 82 Stat. 931 (codified at 16 U.S.C. § 79c(b)(1) (1976)) (current version at 16 U.S.C.A. § 79c(b)(1) (West Supp. 1978)). Although the lands owned by the timber companies were taken immediately upon enactment of the Redwood National Park Act, compensation to be paid for land taken remained to be determined. The Act provided for compensation based on "the agreed negotiated value of the property." Id. § 3(b)(2) (codified at 16 U.S.C. § 79c(b)(2) (1976)). If no agreement was reached by negotiation, the companies were authorized to bring an action in the Court of Claims. Interest at the rate of six percent accrued from the date of taking. Id. The 1978 amendments provide that if the Secretary determines that fee simple title to any property taken is not necessary for the purpose of the Act, he may revest title, subject to reservations to carry out the purposes of the Act, in the former owner. Just compensation may not exceed the fair market value of any rights so reserved. Act of Mar. 27, 1978, Pub. L. No. 95-250, tit. I, § 101(a)(3)-(6), 92 Stat. 163 (1978) (codified at 16 U.S.C.A. § 79c(b)(2) (West Supp. 1978)). This section also removes jurisdiction from the Court of Claims and places it in the United States District Court. Id. See note 493 infra.
logging on park lands during eminent domain proceedings.\textsuperscript{138}

The Redwood National Park Act, like the Senate and House bills from which it was derived, failed to provide meaningful watershed protection for any unit of the park. For example, the park included less than half of the Mill Creek and Lost Man Creek drainages. The Redwood Creek unit, which included less than ten percent of the Redwood Creek watershed, was by far the most vulnerable section of the park.\textsuperscript{139} More than two-thirds of the land in the upper watershed that remained in private ownership had been logged when the park was established; the 40,000 acres of remaining old-growth redwood in the basin were slated for rapid "conversion" to second growth.\textsuperscript{140} It was in this context that Congress established "the worm," a half-mile wide corridor reaching south eight miles from the body of the park, to preserve the world's tallest trees.\textsuperscript{141}

In recognition of the threat to the park posed by continued adjacent logging, the Redwood National Park Act included the "buffer zone" and "boundary modification" provisions of the House bill.\textsuperscript{142} The boundary modification provision, section 2(a), provided that:

The Secretary of the Interior . . . may from time to time, with a view to carrying out the purposes of this [Act] and with particular attention to minimizing siltation of the streams, damage to the timber, and assuring the preservation of the scenery within the boundaries of the national park . . . , modify the park boundaries . . . but the acreage within said park shall at no time exceed fifty-eight thousand acres . . . \textsuperscript{143}

The buffer zone provision, section 3(e), provided that:

In order to afford as full protection as is reasonably possible to the timber, soil, and streams within . . . the park, the Secretary is authorized . . . to acquire interests in land from, and to enter into contracts and cooperative agreements with, the owners of land on the periphery of the park and on watersheds tributary to streams within the park designed to assure that the consequences of forestry management, timbering, land use, and soil conservation practices conducted thereon . . . will not adversely affect the timber, soil, and streams within the park . . . \textsuperscript{144}

\textsuperscript{139} Stone, supra note 26, at 1.
\textsuperscript{140} 1976 Hearings, supra note 24, at 30.
\textsuperscript{142} In addition, the Act authorized the Secretary to acquire a scenic screen along Highway 101 near the park. Act of Oct. 2, 1968, Pub. L. No. 90-545, § 3(d), 82 Stat. 931 (codified at 16 U.S.C. § 79c(d) (1976)). This provision was invoked in 1977 to purchase a critical tract that was slated for harvest at a time when Congress was debating park expansion. See note 442 infra.
\textsuperscript{143} Id. § 2(a) (codified at 16 U.S.C. § 79b(a) (1976)) (current version at 16 U.S.C.A. § 79b(a) (West Supp. 1978)). The Act further requires that the Secretary give notice of any changes in park boundaries by publication in the Federal Register. Id.
\textsuperscript{144} Id. § 3(e) (codified at 16 U.S.C. § 79c(e) (1976)).
Section 3(e) further provided that fee interests could not be acquired unless the cost of lesser interests was disproportionately high. Although their value was questioned at the time, these two provisions afforded the only means of protecting the park from the harmful effects of logging on adjacent land.

The conference bill passed both houses of Congress overwhelmingly and was signed into law by President Johnson on October 2, 1968. The Redwood National Park Act, while recognized as less than ideal, was hailed as a workable compromise and a victory for the public interest. Yet, the distressing conclusion that emerges from the legislative history is that Congress lost sight of its original purpose. The movement to establish a redwood national park arose from the awareness that the redwoods needed protection in complete watershed units. The park itself was conceived in a Park Service report stressing this fact. Yet, Congress, in reaching its “workable compromise,” disregarded ecological realities and returned to the discredited policy of preserving only the finest redwood groves along streams in valley bottoms.

145. *Id.* The Secretary was authorized by section 3(e) to acquire interests in land “by any of the means set out in subsections (a), and (e) of this section,” that is, by “donation, purchase . . . , exchange, or otherwise . . . .” *Id.* § 3(a) (codified at 16 U.S.C. § 79c(a) (1976)) (current version at 16 U.S.C.A. § 79c(a) (West Supp. 1978)). Condemnation of interests in land was clearly authorized. The Conference Report explains that the purpose of the buffer zone provision is:

[T]o assure, among other things, that clear cutting will not occur immediately around the park and, wherever it is reasonable to do so, to allow selective logging to be carried on there.


146. The Senate Report indicates that one reason the Committee rejected the Sierra Club bill was that “section 2(h) authorized the acquisition of watershed easements of speculative nature and unknown cost.” 1967 S. Rep., *supra* note 105, at 24. For text of section 2(h), see note 108 *supra*. Additional views filed with the House Report note:

Only the uncertain hope of watershed easements are [sic] held out to protect the park. The practical meaning of such easements in areas where the companies insist they must clear-cut is hard to fathom, unless further fee acquisitions are contemplated.


149. See note 20 *supra*.

150. Claire Dedrick, then-Secretary of the California Resources Agency, has called the Redwood National Park “probably the worst [political compromise] I have ever seen, barring Lake Tahoe . . . .” 1976 Hearings, *supra* note 24, at 29. A task force formed by the Department of Interior stated that “Congress not only drew boundaries incorporating magnificent trees of majestic height but also inadvertently produced a resource management problem of monumental proportions.” Curry Task Force Report, *supra* note 22, at 1.
III
PROBLEMS WITH PARK DEVELOPMENT

In the years following establishment of the Redwood National Park, the problems inherent in the park became apparent. The Redwood National Park failed to preserve significant new reserves of virgin redwood or create new recreational opportunities.

From the perspective of a park visitor, the Redwood National Park was a disappointment. The failure to provide new recreational opportunities resulted in part from delays by the Park Service in surveying park lands and developing a master plan.\(^{151}\) However, the lack of new development also reflected the character of the federal acquisitions, all but one of which were minor appendages to existing state parks.\(^{152}\) This deficiency was highlighted by the State of California’s refusal to donate state park lands to the federal government.\(^{153}\) Most park land of recreational value had been preserved and was administered separately by the State of California.\(^{154}\) Although the Tall Trees were potentially a significant new recreational attraction, they were not preserved in an accessible, attractive park unit. The Tall Trees Grove was included in the long, half-mile corridor known as “the worm”; the world’s tallest trees could thus be reached only after an eight-mile hike along Redwood Creek. Furthermore, the logging companies continued to clearcut 800 acres per year in the Redwood Creek basin, harvesting right up to the park boundary when convenient.\(^{155}\) Park visitors ambitious enough to undertake the hike could see extensive patches of clear-


\(^{152}\) See Map 1, p. 801.

\(^{153}\) *1976 Hearings, supra* note 24, at 43. California has refused to donate state parks to the federal government because of (1) lack of faith in administration of the park by the National Park Service, and (2) restrictions on title to state park lands. The State of California has indicated that it does not intend to turn over operational state parks to the federal government until it knows what the Park Service plans to do with the land and has confidence that the land will be managed on a level at least equal to present state management. *Id.* (statement of Claire Dedrick, then-Secretary, Cal. Resources Agency); Letter from Huey Johnson, Secretary, Cal. Resources Agency to Rep. Keith Sebelius (Aug. 30, 1977) reprinted in 124 CONG. REC. H868, H869 (daily ed. Feb. 9, 1978). In addition, state park lands that were donated to the state by the Save-the-Redwoods League contain reversions or conditions that provide that the property “shall be maintained as a public park devoted to the perpetuation of the redwood and other forests therefor all time, as part of the California State Park Systems.” *Id.* The Save-the-Redwoods League has indicated that it will consent to transfer of state park land only when “planning and acquisition programs for the park recognize the principle of complete ecological unit and watershed management.” *Id.*

\(^{154}\) See *1976 Hearings, supra* note 24, at 43. For discussion of recent developments see note 495 supra. See generally R. Dolezal, * supra* note 10.

\(^{155}\) *1976 Hearings, supra* note 24, at 30-31 (statement of Lewis Moran, Director, Cal. Dep’t of Conservation).
cut ground and were subjected to the sounds of nearby logging operations.\textsuperscript{156}

In addition to the obvious aesthetic damage to the park, there was growing evidence that increased erosion and stream sedimentation caused by past and ongoing logging operations near the park were causing physical damage. The Park Service prepared a number of re-

\textsuperscript{156} Id. at 30; Environmental Assessment, supra note 23, at 2-76. In addition, park visitors may have been surprised to see logging trucks passing through the park itself. This was an incidental effect of the fragmented park design, which severed the holdings of several timber companies from public roads. In order to mitigate “astronomical severance damages,” the Park Service decided to allow the companies to use logging roads in the park until logging in the severed land was completed. 1971 Hearings, supra note 151, at 9, 19-20.
ports that recognized the threat to the park posed by the logging operations. Several of these reports recommended that “buffer zones” be established pursuant to section 3(e) of the Redwood National Park Act. However, the Service did very little to protect the park. The ultimate result has been described by one park visitor as follows:

Hiking Redwood Creek today brings sadness for what used to be, rather than an appreciation for what is left. The small tributaries which were always clear are sometimes choked with mud and silt now; and the main creekbed which was sometimes gray after a heavy rain is now brown from extensive ground disturbance, even after a small rain.

I have been in the Tall Trees grove [sic] during floods and I watched a mighty giant come crashing down as floods, more frequent now, undermined the root system. The decay of Redwood Creek has been shocking...

Even the untrained eyes from faraway states recognize the devastation glaring from barren hillsides. To prove my point, I hope you will look at the comments on the register maintained by the National Park Service at the Tall Trees Grove. People from all over the United States who have hiked the trail express shock at what they see and hear.

Since the establishment of the Redwood National Park, the Sierra Club has been pressuring the Secretary of Interior to exercise his statutory powers to protect the park. In 1972 the Secretary responded to this pressure by appointing a task force headed by Dr. Richard Curry to study the situation in the park. However, when the task force had completed its study, the Department of Interior refused to release the report to the public. In January 1973, after months of unsuccessful informal requests for the report, the Sierra Club filed a Freedom of Information Act suit against the Department of Interior in the United States District Court in San Francisco. The Park Service promptly furnished a copy of the Curry Task Force Report to the Sierra Club.

The reason for Interior's secrecy was immediately apparent; the

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157. See text accompanying notes 227-61 infra.
158. For detailed discussion of these recommendations, see text accompanying notes 249-61 infra.
159. 1976 Hearings, supra note 24, at 641 (prepared statement of Daniel Sealy).
160. Id. at 64-65 (statement of Dr. Edgar Wayburn).
162. Complaint for Injunction, Sierra Club v. Department of Interior, 376 F. Supp. 90, 6 ERC 1561 (N.D. Cal. 1973) [hereinafter all citations to pleadings are to those from the Sierra Club litigation unless otherwise specified]. Named as defendants were the Department of Interior, Rogers Morton, Secretary of Interior, and Nathaniel Reed, Assistant Secretary of Interior for Fish and Wildlife and Parks. Id. at 1. The National Park Service, which is the agency within the Department of Interior that actually administers the Redwood National Park, 16 U.S.C. § 1 (1976), was not a named defendant. Hereinafter the Department of Interior, the Secretary of Interior and “defendants” will be referred to interchangeably.
163. Actually the Park Service did not furnish a complete copy of the Curry Task Force Report to the Sierra Club: the last two pages were deleted from the copies released to the public. See text accompanying note 279 infra.
report documented serious damage to the park from logging within the Redwood Creek watershed. The Task Force found increased erosion in the watershed and consequent aggradation of the Redwood Creek streambed.164 This aggradation was causing undercutting of stream banks and loss of riparian vegetation; it threatened serious flood damage to the Tall Trees Grove.165 The report attributed this damage to the interaction between continued timber harvesting and recent heavy rainfalls.166

After examining the Curry Task Force Report, the Sierra Club filed an amended complaint alleging that the Department of Interior had failed to fulfill its legal duty to protect the park.167 The litigation that ensued spanned a period of three years and generated three published opinions.

IV
SIERRA CLUB I

The first published decision to arise from the litigation, Sierra Club I,168 addressed the Department of Interior's assertion that Sierra Club's amended complaint failed to state a claim for which relief could be granted. The court, per Sweigert, J., rejected Interior's motion to dismiss, finding that the Sierra Club had stated a cause of action based on traditional administrative law doctrines and the Department's "public trust duty" to protect the park.

The Sierra Club's amended complaint, after alleging facts sufficient to establish standing,169 alleged in substance that: (1) Past and ongoing logging operations upslope and upstream from the Redwood National Park were subjecting the park to damage and the threat of damage from high winds, landslides, and stream siltation;170 (2) The Department of Interior had a legal duty to preserve the resources of the park by exercising certain powers vested in it by the Redwood National Park Act, in particular the authority to modify park boundaries171 and to enter into agreements with or acquire property interests from adjoining landowners;172 (3) Twenty million dollars of authorized funds were

165. Id. at 7-8.
166. Id. at 5.
167. First Amended Complaint for Injunction, Declaratory Relief and Mandamus at 8.
169. First Amended Complaint for Injunction, Declaratory Relief and Mandamus at 2.
170. Id. at 9-10, 12-14.
available to implement the aforementioned provisions;\(^7\) and (4) Plaintiff had formally petitioned the Department of Interior to take action to protect the park,\(^4\) but defendants had failed to take effective action to protect the park from the consequences of logging on lands upslope from the stream and in the upper watershed.\(^1\) In light of the foregoing, plaintiff charged that defendants' conduct was arbitrary, unreasonable, and an abuse of discretion.\(^1\) The Sierra Club prayed that defendants be ordered to prepare and implement a plan to take sufficient and effective action to protect the Redwood National Park.\(^7\) The Sierra Club argued that the court had authority to order such relief under the Administrative Procedure Act.\(^1\)

The Department of Interior moved for dismissal of plaintiff's amended complaint, or, alternatively, for summary judgment on the ground that the Sierra Club had failed to state a claim for which relief could be granted;\(^7\) it argued that the administration of the Redwood

\(^{79}(e)\) (1976)) (current version at 16 U.S.C.A. § 79c(e) (West Supp. 1978)). First Amended Complaint for Injunction, Declaratory Relief and Mandamus at 4, 18. See text accompanying note 144

\(^{173}\) First Amended Complaint for Injunction, Declaratory Relief and Mandamus at 4.

\(^{174}\) Id. at 5-6.

\(^{175}\) Id. at 16-17.

\(^{176}\) Id. at 16.

\(^{177}\) Id. at 20-21.


The Sierra Club also claimed that the court had authority to grant the requested relief pursuant to the Mandamus Act, 28 U.S.C. § 1361 (1976). The court noted this in its opinion (376 F. Supp. at 93, 6 ERC at 1563), but limited its holding to a conclusion that the court had the power to review the Department of Interior's conduct under the Administrative Procedure Act. \(^{176}\) Id. at 96, 6 ERC at 1565. Nonetheless, the court cited both APA and the Mandamus Act as the basis for its authority when it granted relief to plaintiff after the trial. Sierra Club v. Department of Interior, 398 F. Supp. 284, 293-94, 8 ERC 1013, 1020 (N.D. Cal. 1975) (Sierra Club II). This Article will not attempt to unravel the court's reliance on these two statutes. It is clear that the court applied the "arbitrary and abuse of discretion" standard articulated in APA. \(^{176}\) Id. at 293, 8 ERC at 1013; 5 U.S.C. § 706(2)(A)(1976). Therefore this Article will proceed to analyze the case as controlled by APA. The statutory authority relied on probably is not significant, as courts generally exercise a similar degree of review under the Administrative Procedure Act and the Mandamus Act. \(^{178}\) See Comment, The Jurisdictional Basis of Nonstatutory Judicial Review in Suits Against Federal Officers—Jurisdictional Amount, the Administrative Procedure Act and Mandamus, 51 WASH. L. REV. 97, 115, 134-138 (1975). \(^{179}\) See generally French, The Frontiers of the Federal Mandamus Statute, 21 VILL. L. REV. 637, 649-55 (1976).

\(^{179}\) Motion for Order Dismissing Amended Complaint as to the Second Claim for Relief or in the Alternative for Judgment on the Pleadings as to Said Second Claim at 1.

The Department of Interior also claimed that the trial court lacked jurisdiction, a contention which the trial court found "so lacking in merit" as not to warrant serious discussion. 376 F. Supp. at 92, 6 ERC at 1562. Of the several possible bases for subject matter jurisdiction, the court relied on federal question jurisdiction. \(^{176}\) Id. n. 1. At the time the requirements of federal question jurisdiction were that plaintiff's claim be based on construction of a federal statute or constitutional right and that the amount in controversy exceed $10,000. Act of July 25, 1958, Pub. L. No. 85-554, § 1, 72 Stat. 415 (28 U.S.C. former § 1331(a)
National Park had been committed to its discretion and was thus beyond judicial review. Defendants further claimed that, even if Interior's administration of the park was reviewable, the court had no authority to order the Department of Interior to acquire interests in land or even submit a plan of acquisition.

The court rejected these arguments, holding that Interior's administration of the Redwood National Park was reviewable, and that the court had authority to direct the Secretary of Interior to take measures necessary to protect the park. The court rested its holding on the agency's general "trust duty" to protect all national parks and on the specific statutory duty imposed by the Redwood National Park Act. The statutory and trust duties were not treated as separate and distinct in *Sierra Club I*; the court viewed the two duties as complementary, and discussion of the two was intermingled in the opinion. However, the court's language indicates that either duty standing alone could justify an order directing Interior to take action to protect the park.

A. Interior's Discretion in Administration of the Redwood National Park

The specific provisions subject to dispute in the *Sierra Club* litigation clearly gave Interior considerable discretion in its implementation of the Act. Section 2(a) of the Redwood National Park Act provided that the Secretary of Interior "may from time to time" modify park boundaries; section 3(e) authorized the Secretary to enter into contracts or cooperative agreements with or acquire property interests from adjoining landowners. Given this language, Interior argued that the Redwood National Park Act imposed no legal duty on it to protect the park and that implementation of the aforementioned provisions was entirely within its discretion.

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181. Defendants [sic] Closing Memorandum in Support of Motion to Dismiss at 2-4-5.
182. The specific language reads: "Any discretion vested in the Secretary concerning time, place and specifics of the exercise of such powers is subordinate to his paramount legal duty imposed, not only under his trust obligation but by the statute itself, to protect the park." 376 F. Supp. at 95-96, 6 ERC at 1565.
183. See text accompanying note 143 *supra*.
184. See text accompanying note 144 *supra*.
185. Memorandum of Points and Authorities in Support of Motion for Dismissal at 4.
This contention, however, misinterpreted the nature of judicial review under the APA. The APA provides that a reviewing court shall:

1. compel agency action unlawfully withheld or unreasonably delayed; and
2. hold unlawful and set aside agency action... found to be—(A) arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law...

The APA also provides that judicial review is precluded to the extent that "agency action is committed to agency discretion by law." However, the Act is intended to control abuses of discretion; it is well established that the phrasing of a statute in discretionary language does not necessarily render agency discretion absolute or preclude judicial review.

The United States Supreme Court has repeatedly stated that judicial review is the rule; nonreviewability is an exception applicable "only upon a showing of ‘clear and convincing evidence’ of a... legislative intent" to restrict access to judicial review. In applying this standard to the Redwood National Park Act, the court found no clear manifestation of an intent to preclude judicial review.

The court further explained that the extent of agency discretion and the scope of judicial review must be determined by analysis of the entire statutory scheme. Where a statute and the accompanying legislative history indicate a specific legislative purpose, the agency's exercise of discretion, including its refusal to take any action, must be reviewed in reference to that objective. The court noted that the Redwood National Park Act includes a clear statement of legislative purpose:

[T]o preserve significant examples of the primeval coastal redwood...
forests and the streams and seashores with which they are associated for the purpose of public inspiration, enjoyment and scientific study.

The buffer zone provision, section 3(e), also specifically states that its purpose is "to afford as full protection as is reasonably possible to the timber, soil and streams within the boundaries of the park." In view of these specific statutory directives, the court held:

[The terms of the statute . . . impose a legal duty on the Secretary to utilize the specific powers given to him whenever reasonably necessary for the protection of the park and that any discretion vested in the Secretary concerning time, place and specifics of the exercise of such powers is subordinate to his paramount legal duty . . . to protect the park.]

Accordingly, the court denied summary judgment and indicated that it would proceed after trial to:

[Make a finding on whether the Secretary's action or, as in this case, his inaction, is arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law within the meaning of the Administrative Procedure Act . . . .]

Although this holding is in accordance with the controlling decisions, it evinces a degree of judicial intervention greater than some courts would find acceptable. Professor Davis suggests that the Supreme Court cases on which Sierra Club I relies reflect an incomplete statement of the law and that, in practice, courts will decline to exercise review, absent a legislative directive to do so, whenever they find a matter inappropriate for judicial resolution. Although several of the cases cited by Professor Davis involve foreign affairs, an area clearly outside judicial competence, there is no other recognizable pattern in the cases cited. Nor does Professor Davis provide any guidance on the type of matter generally deemed inappropriate for judicial review. These facts suggest that the decisions are essentially ad hoc, reflecting the political and philosophical tendencies of individual judges.

Despite the reluctance of some courts to intervene in administr-
tive matters, the court's decision in *Sierra Club I* to exercise judicial review seems appropriate. Generally, administrative action is reviewable, and the administration of national parks is not a matter peculiarly outside the competence of the judiciary. Insulation of the Department of Interior from judicial review could frustrate important legislative goals.\(^{201}\)

Although the court had determined that the administration of the Redwood National Park was not immune from judicial review, there remained to consider Interior's claim that the court had no authority to direct the agency to take specific actions for protection of the park—such as acquisition of interests in land or negotiation of cooperative agreements. *Sierra Club I* did not explicitly discuss this issue, but some language in the opinion indicates the court believed it had the authority to order Interior to take necessary action.\(^{202}\) The court gave this interpretation of *Sierra Club I* in its *Sierra Club II* opinion.\(^{203}\)

The failure to focus on the court's authority to fashion a remedy may have reflected the belief that reviewability alone established the power to enforce the judicial decision. This is not necessarily true. Although judicial review leads to a judicial remedy absent countervailing considerations, there may be exceptional situations in which a federal court has authority to grant declaratory relief but lacks authority to enforce its order.\(^{204}\) For example, when an agency refuses to initiate prosecution on behalf of an aggrieved party, a court may evaluate the agency's legal rationale for declining to prosecute, even though the doctrine of prosecutorial discretion bars the court from ordering prosecution.\(^{205}\) Similarly, a court may review a Congressional refusal to seat a properly elected representative, even though the Speech and Debate

\(^{201}\) It is the duty of the judiciary "to see that important legislative purposes... are not lost or misdirected in the vast hallways of the federal bureaucracy." Calvert Cliffs' Coordinating Committee v. A.E.C., 449 F. 2d 1109, 1111, 2 ERC 1779, 1780 (D.C. Cir. 1971), cert. denied 404 U.S. 942 (1972).

\(^{202}\) The court noted that the APA provides that a reviewing court should "compel agency action unlawfully withheld." 376 F. Supp. at 95, 6 ERC at 1564. The court also cited Rockbridge v. Lincoln, 449 F. 2d 567 (9th Cir. 1971) as "strongly persuasive to the point that a case for judicial relief has been made out by plaintiff *Sierra Club*." *Id.* In its discussion the court observed that the court in *Rockbridge* did not limit its remedy to declaratory relief. *Id.*

\(^{203}\) In an earlier Memorandum of Decision, filed herein on May 13th, 1974, this court held that... plaintiff had alleged in its amended complaint facts which, if established would justify the declaratory and mandatory relief prayed. *Sierra Club II*, 398 F. Supp. at 285, 8 ERC at 1013-14.

\(^{204}\) This was apparently contemplated by the Declaratory Judgment Act, which states that "any court of the United States... may declare the rights and other legal obligations [or] relations of any interested party... whether or not further relief is or could be sought." 28 U.S.C. § 2201 (1976). Accord, Powell v. McCormack, 395 U.S. 486, 517-18 (1969).

Clause\textsuperscript{206} may prevent the court from ordering the representative seated.\textsuperscript{207}

However, the Department of Interior's administration of the Red-
wood National Park does not appear to be one of those exceptional
cases; the court could have fashioned a remedy. Courts have ordered
executive agencies to purchase school busses to facilitate desegrega-
tion,\textsuperscript{208} to allocate federal funds among eligible states,\textsuperscript{209} to grant fed-
eral funds to particular eligible applicants,\textsuperscript{210} and to promulgate
regulations governing specific pollutants.\textsuperscript{211} These cases indicate that
should executive intransigence prevent realization of a legislative or
constitutional goal, courts may compel specific agency action.\textsuperscript{212} An
order that compelled the Department of Interior to exercise specific
powers granted by the Redwood National Park Act would no more be
a severe infringement on specific agency decision-making than the or-
ders issued in the foregoing cases.

\textbf{B. The Public Trust Doctrine}

As indicated above, the \textit{Sierra Club I} decision did not rely exclu-
sively on the statutory provisions of the Redwood National Park Act;
the court decided that the Department of Interior could be ordered to
take action to protect the park on the theory that Interior holds the
park in trust for the public.\textsuperscript{213} Although the court's discussion of the
"trust duty" is very brief, this holding is the most significant aspect of
the \textit{Sierra Club} litigation from the perspective of environmentalists
seeking to shape or force agency action.\textsuperscript{214} The court found the basis

\begin{itemize}
\item \textsuperscript{206} U.S. CONST. art. I, § 6, cl. 1.
\item \textsuperscript{207} Powell v. McCormack, 395 U.S. at 517-18.
\item \textsuperscript{208} Morgan v. Kerrigan, 401 F. Supp. 216, 263-64 (D. Mass. 1975); see also Swann v.
\item \textsuperscript{209} Train v. City of New York, 420 U.S. 35, 40-41 (1975).
\item \textsuperscript{210} City of Los Angeles v. Coleman, 397 F. Supp. 547, 556 (D.C. Cir. 1975).
\item \textsuperscript{211} Natural Resources Defense Council, Inc. v. Train, 411 F. Supp. 864, 871, 8 ERC
  1695, 1699 (S.D.N.Y. 1976). See also Natural Resources Defense Council, Inc. v. Train, 510
  F.2d 692, 714, (D.C. Cir. 1975); Pyramid Lake Paiute Tribe of Indians v. Morton, 354 F.
  Supp. 252 (D.D.C. 1973); Rockbridge v. Lincoln, 449 F.2d 567 (9th Cir. 1971).
\item \textsuperscript{212} See Cox, The New Dimensions of Constitutional Adjudication, 51 WASH. L.REV. 791,
  813-21 (1976). For an excellent discussion of the remedial powers of federal courts, see
  Goldstein, \textit{A Swann Song for Remedies: Equitable Relief in the Burger Court}, 13 HARV. C.R.-
  C.L. L. REv. 1 (1978). See generally Lesby, Interlocutory Injunctive Relief in Environmental
  Cases: A Primer for the Practitioner, 6 ECOLOGY L.Q. 639 (1977).
\item \textsuperscript{213} 376 F. Supp. at 93, 6 ERC at 1564-1565. The \textsc{Restatement (Second) of Trusts}
  § 2 (1959) states:
  A trust . . . is a fiduciary relationship with respect to property, subjecting the per-
  son by whom the title to the property is held to equitable duties to deal with the
  property for the benefit of another . . .
\item \textsuperscript{214} For discussions of the applicability of the public trust doctrine to environmental
  law generally, see Sax, The Public Trust Doctrine in Natural Resources Law: Effective Judicial
  Intervention, 68 MICH. L. REv. 473 (1970); Wyche, Tidelands and the Public Trust: An Appli-
for the public trust duty in the Organic Act of the National Park System, which provides that the National Park Service shall:

[P]romote and regulate the use of the Federal areas known as national parks, monuments, and reservations . . . by such means and measures as conform to the . . . fundamental purpose of said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.\footnote{1976} 215

In addition, the court cited several cases which state that the Department of Interior holds public lands in trust for the public.\footnote{1976} 216 For example, in 1891 the United States Supreme Court declared:

The Secretary [of the Department of Interior] is the guardian of the people of the United States over the public lands. The obligations of his oath of office oblige him to see that the law is carried out, and that none of the public domain is wasted or is disposed of to a party not entitled to it.\footnote{1976} 217

Thus the notion that the Department of Interior holds national parks as a trustee for the public did not originate in \textit{Sierra Club I}. However, \textit{Sierra Club I} is the first reported case to hold that this trust relationship creates a \textit{judicially enforceable} duty to protect a national park from threatened injury. This holding is a logical extension of the trust relationship, for it is fundamental doctrine that a trustee is under a legal duty to use reasonable care and skill to protect trust property from loss or damage.\footnote{1976} 218 \textit{Sierra Club I} holds that the courts can intervene if Interior is delinquent in the performance of this legal duty.

Because the court's comments on the public trust duty are interwoven with discussion of the statutory duties, the decision does not identify the fiduciary duties or the judicial remedies created by the public trust doctrine.\footnote{1976} 219 It is clear, however, that the court regarded the duty as an affirmative obligation to protect park resources independent of


\footnote{1976}{16 U.S.C. § 1 (1976). For a discussion of a recent amendment of a related statutory provision, see note 225 \textit{infra}.}

\footnote{1976}{376 F. Supp. at 93, 6 ERC at 1563.}

\footnote{1976}{\textit{Id.}; Knight v. United Land Ass'n, 142 U.S. 161, 181 (1891); accord, Utah Power & Light v. United States, 243 U.S. 389, 409 (1916); Davis v. Morton, 469 F.2d 593, 597 (10th Cir. 1972).}

\footnote{1976}{\textit{Restatement (Second) of Trusts}, § 176 & § 176, Comment b (1959).}

\footnote{1976}{One commentator has suggested that the following criteria should be satisfied if a public trust doctrine is to prove a satisfactory tool for addressing resource management problems: It must contain some concept of a legal right in the general public; it must be enforceable against the government; and it must be capable of interpretation consistent with contemporary concerns for environmental quality. Sax, supra note 214, at 474 (footnote omitted).}
and somewhat broader than the specific statutory duties imposed by the Redwood National Park Act. *Sierra Club I* found that the Act created a duty to acquire buffer zones or modify boundaries if reasonably necessary to protect the park; the public trust doctrine, while encompassing those duties, was found to impose a broader duty to take reasonable measures to protect the park.\(^{220}\)

The "public trust" doctrine incorporates the notion that when a national park is threatened with injury, judicial examination will be particularly searching; deference to agency discretion will be limited. Interior's discretion in administering the park is not necessarily circumscribed more narrowly by the public trust duty than by the statutory duties specifically established by the Redwood National Park Act.

The extent of agency discretion is always determined by reference to the statutory purpose.\(^{221}\) However, the public trust doctrine reflects the belief that there is strong legislative intent to protect national parks from threatened injury and that courts should be particularly vigilant in assuring that this legislative purpose is not frustrated.\(^{222}\)

The public trust doctrine articulated in *Sierra Club I* may be of great precedential value to environmentalists. Its simplicity makes it particularly attractive. The doctrine requires that the Department of Interior exercise reasonable care to protect and preserve national parks in their natural state. It can be appropriately invoked in a wide variety of situations in which a national park is threatened with injury; the duties that the public trust might impose are as wide-ranging as the problems that could plague a park. Furthermore, the fiduciary duty imposes a high standard of care.

However, there is a significant external limitation on the use of the public trust doctrine. In all cases, judicial intervention will be circumscribed by traditional constitutional limits on judicial power.\(^{223}\) In the *Sierra Club* litigation, these limitations proved to be critical; the court was unable to provide a remedy to the Sierra Club without stepping outside traditional areas of judicial review. Despite this limitation, *Sierra Club I* is an important precedent because the public trust doctrine

\(^{220}\) See note 182 *supra*. This is confirmed by the court's directives after trial that the Department of Interior consider requesting additional money or authority from Congress and initiating litigation against the logging companies. See text accompanying notes 300, 397 *infra*.

\(^{221}\) See authorities cited in note 193 *supra*.

\(^{222}\) One commentator has suggested that the public trust doctrine reflects the belief that "some interests are entitled to special judicial attention and protection." Sax, *supra* note 214, at 484. Another commentator has suggested that "application of classical trust law in cases involving the Public Trust Doctrine suggests opportunities for the additional benefit of presumptions in favor of the protection of trust resources." Cohen, *The Constitution, The Public Trust Doctrine and the Environment*, 1970 Utah L. Rev. 388, 392.

\(^{223}\) See text accompanying notes 376-95 *infra*. *Cf.* text accompanying notes 423-24 *infra*. 
will be applicable to the many aspects of park administration that are
within the proper scope of judicial review.\textsuperscript{224} \textit{Sierra Club I} stands for
the proposition that courts need not idly stand by when a national park
is threatened with injury.\textsuperscript{225}

\textbf{V}

\textbf{SIERRA CLUB II}

After summary judgment was denied, the \textit{Sierra Club} suit pro-
ceeded to trial. The issue at trial was whether the Department of In-
terior's administration of Redwood National Park was unreasonable,
arbitrary and an abuse of discretion in light of the Secretary's trust and
statutory duties to protect the park. Resolution of this issue required
that three questions be answered. Firstly, the court had to determine if
the park was suffering from threatened or actual damage as a result of
logging on adjacent land. Secondly, the court had to evaluate the ade-
quacy of actions already taken by Interior to protect the park from pos-
sible future damage.

Finally, based on the result of the first two inquiries, the court had
to decide whether the Secretary's conduct, and particularly his failure

\textsuperscript{224} For example, the public trust doctrine could be properly applied to Interior's 1976
decision to allow mining in Death Valley National Monument. The Sierra Club filed suit
against the agency, alleging that the decision violated Interior's trust duty to preserve and
protect the national monument, and citing \textit{Sierra Club I}. Memorandum of Points and Au-
thorities in Support of Motion for Summary Judgment at 29-30, Death Valley National
The lawsuit became moot when Congress repealed the law which arguably had authorized

\textsuperscript{225} To date the only published decision to cite \textit{Sierra Club I}, \textit{Friends of Yosemite v.
Frizzell}, 420 F. Supp. 390 (N.D. Cal. 1976), concluded that plaintiffs had failed to show any
conduct which might constitute an abuse of discretion, and accordingly declined to consider
the applicability of the public trust doctrine to the facts of that case. \textit{Id.} at 393.

The statutory basis for the public trust doctrine has been reinforced by recent legislation
expanding the Redwood National Park. The expansion legislation provides:

\begin{quote}
Congress further reaffirms, declares, and directs that the promotion and regulation
of the various areas of the National Park System... shall be consistent with and
founded in the purpose established by [the Organic Act of the National Park Serv-
ice], to the common benefit of all the people of the United States. The authorization
of activities shall be construed and the protection, management, and
administration of these areas shall be conducted in light of the high public value
and integrity of the National Park System and shall not be exercised in derogation
of the values and purposes for which these various areas have been established,
except as may have been or shall be directly and specifically provided by Congress.
\end{quote}

(West Supp. 1978)). The accompanying Senate report explains that the purpose of the pro-
vision is:

\begin{quote}
[T]o refocus and insure that the basis for decision-making concerning the National
Park System continues to be the criteria provided by 16 U.S.C. § 1—that is, "to
conserve the scenery and the natural and historic objects and the wildlife therein
and to provide for the enjoyment of the same in such manner and by such means
as will leave them unimpaired for the enjoyment of future generations."
\end{quote}

\textit{S. REP. NO. 95-528, 95th Cong., 1st Sess. 13-14 (1977).}
to take additional action to protect the park, was an abuse of his discretion. At trial the court heard five days of testimony and examined numerous exhibits. In July 1975, the court issued its opinion, *Sierra Club II, 226* finding that the park was suffering damage as a result of logging upslope and upstream, that the measures heretofore taken by the agency were inadequate to protect the park from the threat of future damage, and that the Secretary's conduct was an abuse of discretion.

A. Damage to the Park

In *Sierra Club II*, the court relied extensively on a series of reports on the Redwood Creek basin prepared by or for the National Park Service. These reports generally indicated the Redwood Creek basin was subject to heavy erosion, the resulting stream sediment presented a variety of threats to the resources of the park, and existing logging in the Redwood Creek basin could aggravate these problems. 227

For example, in 1969 Edward Stone and Associates prepared a comprehensive study of the Redwood National Park for the Park Service. 228 The Stone report outlined in detail the problems anticipated in protecting park resources and, as discussed below, 229 recommended specific measures to protect the park. The Stone report noted that the most critical management area in the park was the Redwood Creek corridor, which lies in an area of extensive landslide activity. 230 The report observed that recent floods had increased landslide activity in the basin by undercutting stream banks and warned of the possibility that increased sedimentation would continue this process. 231 Over half the banks in the upper watershed consisted of only moderately stable soils which would be vulnerable to accelerated erosion if disturbed by logging activities. 232 The loss of vegetative cover caused by logging could increase flood-peak flows and thus increase damage to stream channels and riparian vegetation. 233 In straightforward language the report warned that:

There still remains around the Park about 15-20 years of cutting in old-growth timber and thus thousands of acres are yet to be converted to young-growth management. It is during this conversion period that the threat to the Park in the form of accelerated erosion will largely ex-

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227. *Id.* at 287-92, 8 ERC at 1015-19.
229. See text accompanying notes 249-55 infra.
231. *Id.* at 17.
232. *Id.* at 40.
233. *Id.* at 35.
Potential inputs into the Park of soil and water from new roads and skid trails will be high during this period unless care is taken.

The document most damaging to the Secretary's case, however, was the Curry Task Force Report (which had originally prompted the Sierra Club to file suit). The Curry report essentially repeated the analysis presented in the Stone report regarding the dynamics of erosion within the Redwood Creek basin and the resulting threat to park resources. In addition, the Curry Task Force Report found evidence that substantial damage to park resources had begun already. A decline in fish populations caused by siltation in streambeds was documented. The report noted a "relentless increase in the number of actively eroding areas and in the width and braiding of the main channel of Redwood Creek," and concluded that aggradation of the streambed by sediment deposits was causing undercutting of stream banks and damage to riparian vegetation. The damage to the park caused by these processes was graphically documented in a photographic study prepared to accompany the Curry Task Force Report.

The report's conclusions about the future of the park were ominous. It warned that aggradation of the Redwood Creek streambed could increase flooding and accompanying floodplain deposits, and expressed concern that harmful levels of gravel and logging debris were likely to be included in future flood deposits. The report identified the Tall Trees Grove as an area particularly vulnerable to flood damage.

The Curry Task Force Report also assessed the underlying causes of the documented damage. The report found that the major source of stream-carried sediment was the heavily cut portion of Redwood Creek basin upstream from the park. The report continued:

Historic documentation . . . indicate [sic] specific threats to Redwood National Park which are caused by the interaction of . . . timber harvesting practices with the geology of the area, climatic conditions, and other nature phenomena such as record rainfalls. The basic fact is that present harvesting techniques—clearcutting with tractor yarding—produce a greater amount of ground surface disturbance and destruction of vegetive cover than any other combination of practices.

234. Id. at 28.
236. Id. at 2.
237. Id. at 7, 8.
240. Id. at 8.
241. Id. at 3.
heretofore employed or envisioned.\textsuperscript{242} Improperly designed logging roads were another major source of increased erosion.\textsuperscript{243} The report concluded:

[T]he greatest threat to the Park emanates from man-induced acceleration of natural erosion processes[,] it is imperative that present land use practices be revised.\textsuperscript{244}

Based on the Stone and Curry reports, and also on the testimony of six Sierra Club witnesses,\textsuperscript{245} the trial court found that "there is substantial on-going damage presently occurring to the timber, soil, streams and aesthetics within the Park downslope from and as a result of clearcutting . . ."\textsuperscript{246}

\section*{B. Actions by the Department of Interior}

The Department of Interior argued that even if damage to the park had occurred in the past, the danger of future injury was substantially minimized by actions recently taken by the Secretary.\textsuperscript{247} In evaluating this claim, the court compared the actions taken by the Secretary to those recommended in the various reports prepared by and for the Park Service.\textsuperscript{248}

The Stone report had made detailed recommendations that twelve different types of buffer zones be established around the Redwood National Park.\textsuperscript{249} The buffers were generally designed to assure establishment of 800-foot wide stands of young growth redwoods around the park.\textsuperscript{250} Although the details of the buffers varied, recommended restrictions included: use of clearcutting in alternate blocks of thirty acres with adjacent blocks left unharvested until second-growth trees were well established;\textsuperscript{251} use of shelterwood cutting in sensitive areas;\textsuperscript{252} careful design and maintenance of logging roads;\textsuperscript{253} and use of high-lead cable yarding on slopes over forty to fifty percent.\textsuperscript{254} The Stone report emphasized that buffer zones should be established "as quickly

\textsuperscript{242} Id. at 5.
\textsuperscript{243} Id. at 4.
\textsuperscript{244} Id. at 16 (page removed from copy of report released to public, available in files of author; see text accompanying note 279 \textit{infra}.)
\textsuperscript{245} Sierra Club witnesses included Dr. Richard Janda, who was conducting ongoing studies of the park for the Park Service, Gordon Robinson, and Peter Twight. [Defendants' Proposed] Memorandum of Decision and Order at 9-10.
\textsuperscript{246} 398 F. Supp. at 293, 8 ERC at 1019.
\textsuperscript{247} [Defendants' Proposed] Memorandum of Decision and Order at 14.
\textsuperscript{248} 398 F. Supp. at 287-92, 8 ERC at 1015-1019.
\textsuperscript{249} Stone, \textit{supra} note 26, at 72-83.
\textsuperscript{250} Id. at 88.
\textsuperscript{251} Id. at 73. For a discussion of the advantages of clearcutting in small patch-cuts, see note 36 and text accompanying notes 44-45 \textit{supra}.
\textsuperscript{252} Id. at 74.
\textsuperscript{253} Id. at 68, 72-73.
\textsuperscript{254} Id. at 69.
as possible."  

In November 1971 the Park Service had prepared a report recommending acquisition of management easements pursuant to section 3(e) of the Redwood National Park Act. The November 1971 National Park Service Proposal advised establishment of a 10,000-acre buffer zone around the Redwood Creek unit of the park. The management easements would have required, \textit{inter alia}, that logging be done by alternate patch cuts not exceeding twelve acres, harvesting in the Redwood Creek basin be spread out over a twenty year period "to assure a gradual conversion to second-growth redwood," and high-lead yarding be utilized. The cost of this proposal was estimated at $17.2 million, and its implementation was deemed "essential" for protection of the park.

The Curry Task Force Report had also made specific recommendations for establishment of buffer zones around the park. The Task Force advised the Secretary of Interior to secure the cooperation of the logging companies in adopting harvesting techniques "that minimize the degree of ground surface and vegetation disruption." Suggested measures included use of high-lead yarding, "more sensitive placement of roads," and better road maintenance. The companies also were urged to minimize erosion on land already cutover by stabilizing active slide areas and replanting where natural regeneration would be difficult. The report recommended a two-year moratorium on logging within seventy-five feet of major streams "to permit the accumulation of base line data" and acquisition \textit{in fee} of 1,650 acres in order to establish an 800-foot buffer zone around the threatened Redwood Creek.

\begin{itemize}
  \item \textit{255.} \textit{Id.} at 2.
  \item \textit{256.} \textit{Act of Oct. 2, 1968, Pub. L. No. 90-545, \S 3(e), 82 Stat. 931 (codified at 16 U.S.C. \S 79(e) (1976)).}
  \item \textit{257.} \textit{1971 NPS Proposal, supra note 134.}
  \item \textit{258.} \textit{Id.} at 13.
  \item \textit{259.} \textit{Id.} at 10-14. The 1971 National Park Proposal also recommended modification of park boundaries through implementation of section 2(a) of the Redwood National Park Act. \textit{Act of Oct. 2, 1968, Pub. L. No. 90-545, \S 2(a), 82 Stat. 931 (codified at 16 U.S.C. \S 79b(a) (1976)) (current version at 16 U.S.C.A. \S 79b(a) (West Supp. 1978)).} See text accompanying note 143 supra. \textit{Surveys of the Redwood National Park had revealed that lands included within the park boundaries included only 56,205 acres—1,795 acres below the maximum size prescribed by the Redwood National Park Act. The proposal recommended that the Secretary of Interior add 1,795 acres of land in the Skunk Cabbage watershed to the Redwood Creek unit. This acquisition would have added a substantially intact stand of superlative old-growth redwood to the park. Because the Skunk Cabbage drainage lies downstream from the Redwood Creek unit, it would not have provided the park with any protection from upstream logging. However, the expansion would have afforded the park some protection from increased exposure to ocean winds. The cost of the acquisition was estimated at $19.8 million. 1971 NPS Proposal, supra note 134, at 2-7. Congress added Skunk Cabbage watershed to the park in 1978.}
  \item \textit{260.} \textit{Curry Task Force Report, supra note 22, at 16 (page removed from copy of report released to public, available in files of author; see text accompanying note 279 infra).}
\end{itemize}
The action taken by the Department of Interior in response to this chorus of recommendations was minimal. In response to a specific recommendation of the Curry Task Force Report, the Park Service had contracted with Dr. Richard Janda of the U.S. Geological Survey to conduct a three-year study of the Redwood Creek basin. The Secretary of Interior had corresponded with California officials who assured him that logging operations in Redwood Creek were frequently inspected and found to be in full compliance with state law. The Secretary had apparently convinced the logging companies to defer cutting within an 800-foot “buffer” around the Redwood Creek corridor until 1973. However, the only protection actually afforded the park at the time of the trial was that provided by “cooperative agreements” negotiated in 1973 and 1974 with those logging companies harvesting in the Redwood Creek basin. The adequacy of these cooperative agreements was one of the major issues disputed at trial.

Negotiation of the cooperative agreements had been completed prior to trial, but only one timber company had actually signed an agreement; the Secretary of Interior had yet to sign any of them. The Department justified the delay by citing the need for preparation of an environmental impact statement and for completion of Dr. Janda’s study. The agency soon dropped the first argument, and the court rejected the second.

The court held that the agreements were “in fact not contracts or cooperative agreements within the meaning of the Redwood National Park Act,” as they were not legally enforceable against the timber companies. However, since officials from the logging companies had testified that they considered themselves bound by the cooperative

261. Id. A no-cut buffer around the park would serve as “a ‘filter strip’ for sediment” eroding from upslope and would also serve to alleviate windthrow losses on the edge of the park. Janda Memorandum, supra note 36, at 6.
263. Defendants’ Trial Brief at 5-6.
264. 398 F. Supp. at 284, 8 ERC at 1020. But see E. Wayburn, Redwood National Park . . . A Promise Unfulfilled, SIERRA CLUB BULL., June 1971, at 10-13 (photographs purporting to show clearcutting up to the boundary of the park).
265. 398 F. Supp. at 292, 8 ERC at 1019. There are three cooperative agreements, one with each of the companies conducting logging operations in the Redwood Creek basin—Arcata Redwood Co., Simpson Timber Co., and Louisiana-Pacific Corp. Miller-Rel-lim Redwood Co. owns no lands in the Redwood Creek basin, and has not entered into any cooperative agreements with the Park Service. The three agreements, although differing in detail, are essentially identical.
266. Defendants’ Trial Brief at 5-7, 9.
268. See text accompanying notes 283 infra.
269. 398 F. Supp. at 292, 8 ERC at 1019.
agreements and conducted their harvesting operations accordingly, the court proceeded to evaluate the substantive provisions of the agreements.

The court found that the agreements provided some protection for the park, but fell short of the recommendations of the various Park Service studies. For example, the agreements provided for high-lead cable yarding within 800 feet of the park and within 400 feet of designated streams. In contrast, the Curry Task Force had recommended an 800-foot no-cut buffer around the park, a moratorium on logging near streams, and utilization of high-lead yarding throughout the watershed. The cooperative agreements also limited clearcutting to twenty-acre patch cuts within 800 feet of "the worm." The November 1971 National Park Service Proposal had recommended a similar but more stringent restriction within a 10,000 acre buffer zone. Although the cooperative agreements included fairly detailed restrictions on construction and maintenance of new logging roads, other provisions were so vague and meaningless as to be practically unenforceable. The court held:

[The restraints placed upon the companies by the so-called cooperative agreements are unreasonably inadequate to prevent or reasonably minimize damage to the resources of the Park resulting from timber harvesting operations; that there is substantial on-going damage presently occurring to the . . . Park . . . as a result of clearcutting within the so-called buffer zone, even as such clearcutting is done in conformity with the so-called cooperative agreements.]

C. Reasonableness of the Department of Interior's Conduct

From the court's perspective, the findings that the Redwood National Park was suffering from damage and that Interior had failed to take adequate action to protect the park were almost dispositive of the third issue, the reasonableness of Interior's response. These findings were supplemented by other indications in the record of Interior's poor

270. [Defendants' Proposed] Memorandum of Decision and Order at 11.
272. See text accompanying notes 260-61 supra.
273. E.g., Harvesting Guidelines, supra note 271, at 2, 12.
275. E.g., Harvesting Guidelines, supra note 271, at 6-9.
276. For example, the agreements provided that "Attempts will be made to eliminate ground disturbance consistent with the best practices of forest management. Where possible, the multiple use of layouts following contours will be practiced and the operation of layout equipment over obvious areas of slope instability will be avoided." E.g., id. at 2 (emphases added).
277. 398 F. Supp. at 292-93, 8 ERC at 1019.
performance. For example, in response to the recommendations of the Curry Task Force Report, the Department of Interior had submitted a proposal to the Office of Management and Budget (OMB) for the acquisition in fee of an 800-foot buffer zone around the park. This proposal was disapproved by OMB. At this point, Interior changed its position, deciding that the acquisition of a buffer zone was not justified because it would not guarantee "full protection to park resources." Apparently with an eye to avoiding public criticism, Interior then deleted the "Recommendations" section from the Curry Task Force Report before releasing it to the public. The record also showed that Interior had relied on regulation by the State of California without inquiring into the adequacy of state restrictions or requesting that the State of California adopt more stringent rules to regulate logging in the Redwood Creek basin.

The Department of Interior claimed that its failure to take effective action to protect the park was justified by the lack of reliable data about the Redwood Creek watershed, citing in particular the uncertainty regarding the relative magnitude of the dangers presented by erosion on lands upslope from the park and in the upper Redwood Creek basin. The agency claimed to be awaiting the results of continuing studies by Dr. Richard Janda. The court rejected this justification and found that, in light of the specific findings and recommendations of the various Park Service studies, "further studies [would] serve merely to further document the need for what has already been recommended." The court also noted that the studies performed by and for the Park Service had recognized that "time is of the essence."

Finally, the Department of Interior argued that its conduct was reasonable because no funds were available for acquisition of buffer zones. The availability of funds, discussed more fully in a subsequent section, was a complex issue because the cost of compensating

278. Defendants' Trial Brief at 5.
279. 398 F. Supp. at 293, 8 ERC at 1020.
280. See note 263 supra and accompanying text. The Department of Interior had also failed to avail itself of protection available in tort under the doctrine of public nuisance. Although this is not extensively discussed in the record, the Sierra Club apparently contemplated the possibility of a nuisance suit when it requested that the court order the Secretary "to prevent further damage to the park . . . , and obtain recompense or restoration from the persons responsible for previous damage . . . ." Joint Pre-trial Statement at 9. For a discussion of the probable outcome of such a lawsuit, see text accompanying notes 398-420 infra.
281. Defendants' Trial Brief at 4.
282. Id. at 5-6.
283. 398 F. Supp. at 293, 8 ERC at 1020.
284. Id.
286. See text accompanying notes 338-55 infra.
landowners for their land exceeded the authorized expenditures. As a result, some payments were made out of funds other than Redwood Park appropriations. At the time of trial, $2.8 million appropriated for the Redwood National Park remained unused, even though existing obligations for land acquisition exceeded total appropriations and authorizations.\textsuperscript{287} Despite the obvious importance of the issue, the court declined to determine whether funds were available for acquisition of buffer zones.\textsuperscript{288}

Based on the foregoing record, the court held that the Department of Interior's conduct in administering the Redwood National Park was unreasonable, arbitrary, and an abuse of discretion.\textsuperscript{289} Although the court did not explicitly state the basis for its holding, it appears to have relied largely upon the findings that the Redwood National Park was suffering damage and that the Department of Interior had not taken effective action to protect the park. To a lesser extent, the court focused upon Interior's rather lackluster performance, perhaps feeling that Interior was not making a good faith effort to protect the park.\textsuperscript{290} These conclusions standing alone provide a dubious basis for the judicial determination that Interior's conduct constituted an abuse of discretion.

The court seemed to place an inordinate amount of weight on its finding that the agency's efforts to provide an adequate level of protection had failed.\textsuperscript{291} While clearly relevant, this finding merely established that Interior's efforts had been unsuccessful; it did not establish that the agency's efforts were legally inadequate. A judgment that Interior was guilty of an abuse of discretion would have necessarily required a determination that Interior had alternative courses of action that were likely to achieve the statutory objective.\textsuperscript{292}

\begin{footnotes}
\footnote{287. [Defendants' Proposed] Memorandum of Decision and Order at 15.}
\footnote{288. The court stated that "it is the Congress which must make the ultimate determination whether additional sums should be authorized or appropriated . . ." and noted that the Secretary of Interior had never directly requested additional funds from Congress. 398 F. Supp. at 293, 294, 8 ERC at 1019, 1021, n.4. This, of course, begs the question of whether funds are available. It also appears to assume that the Secretary's failure to request additional funds from Congress is subject to judicial review, a notion which proved to be troublesome to the court. See text accompanying notes 359-71 infra.}
\footnote{289. 398 F. Supp. at 293, 8 ERC at 1020.}
\footnote{290. The court stated, for example, that Interior's conduct in deleting the "Recommendations" section from the copy of the Curry Task Force Report that was released to the public constituted "an implied recognition by the defendants of some degree of fault on their part." Id.}
\footnote{291. See 398 F. Supp. at 292, 8 ERC at 1019.}
\footnote{292. To this an important caveat should be added: if the only course of action available to an executive officer as a means of achieving the statutory objection is an act that is immune from judicial review, then generally a court will not find that an abuse of discretion has occurred. Otherwise, the court would decree that an abuse of discretion has occurred while at the same time acknowledging that no judicial remedy is possible. \textit{But see} note 205 supra and accompanying text.}
\end{footnotes}
The court, however, did not make this determination. Specifically, the court failed to determine whether funds were available for acquisition of more-satisfactory buffer zones. This failure is particularly troublesome because the record did not establish that the Secretary could do anything to protect the park without funding, except to negotiate improved cooperative agreements with the logging companies.

However, there was nothing in the record to indicate that the companies were willing to adopt more stringent harvesting restrictions.

In summary, the court simply failed to seriously consider whether or not an alternative course of action was available to Interior that could have afforded greater protection to the park. By failing to consider this issue, the court neglected to lay the foundation necessary to support a judgment that an abuse of discretion had occurred.

Nor did an implicit finding that the Secretary had shown "bad faith" in administering the Redwood Park, even in combination with earlier findings, warrant the conclusion that the Secretary had abused his discretion. The issue in dispute was the legality of the Secretary's conduct; the Secretary's state-of-mind was irrelevant if the Secretary did not have the authority or resources necessary to achieve the statutory objective. An order that adjudges an official to have committed an "abuse of discretion" based only on a finding of "bad faith" is of doubtful significance. Such an order would seem to violate the constitutional prohibition against purely advisory opinions; it certainly does not lend itself to the fashioning of a workable judicial remedy.

The awkward position in which the court placed itself by adjudging the conduct of the Department of Interior an abuse of discretion is demonstrated by the remedy the court granted. Instead of fashioning a substantive remedy, the court ordered the defendants to:

[T]ake reasonable steps within a reasonable time [five months] to exer-

293. Cf. Ross v. Community Services, Inc, 396 F. Supp. at 287. (HUD is required to carry out congressionally-mandated programs only to the extent funds are available).
294. But see discussion of nuisance suit, text accompanying notes 396-429 infra.
295. A showing of bad faith might warrant further judicial supervision if there were no way to determine, on the basis of the existing records, the probable success of possible actions by an executive officer. Otherwise, judicial review could be completely frustrated by agency inaction. However, the Sierra Club litigation did not present such a situation. The court had a sufficient record to determine whether authorized Redwood National Park monies had been exhausted. The cooperative agreements had just recently been negotiated with the logging companies (over the course of several years) and it was unlikely that the companies would agree to more restrictive provisions in the near future. No other remedies had been suggested by plaintiff.
297. The only judicial action that might "remedy" such an abuse of discretion would be placement of the park under federal receivership. In a bit of sword-rattling, the Sierra Club mentioned, but did not request, such a remedy. Supplemental Sierra Club Statement with Respect to Dep't of Interior's December 15, 1975 Report at 3 n.2.
cise the powers vested in them by law... and to perform the duties imposed upon them by law... in order to afford as full protection as is reasonably possible to the... Park; that such action shall include, if reasonably necessary, acquisition of interests in land and/or execution of contracts or cooperative agreements with the owners of land on the periphery or watershed, as authorized in [section 3(e) of the Redwood National Park Act, or] modification of the boundaries of the Park, as authorized in [section 2(a)]... 298

The court ordered the defendants to report back within five months detailing compliance with the court's order. 299

The effectiveness of the court's order depended on variables beyond the court's control. If the logging companies refused to cooperate, and if no additional funds were available, the suggested courses of action would prove fruitless. In recognition of this possibility, the court indicated that the "reasonable steps" to be taken by defendants should include:

[If] reasonably necessary, resort to Congress for a determination whether further authorization and/or appropriation of funds will be made for the taking of the foregoing steps, and whether the powers and duties of defendants... should be modified. 300

This last directive proved troublesome for the court. The court had purported to order the executive branch to "resort to Congress" without consideration of the constitutional questions raised by such an order and without oral argument or briefing by the parties. 301 This ill-considered directive was unenforceable; it placed the court in a more delicate constitutional situation than was realized.

The court was undoubtedly troubled by the overwhelming evidence of damage to the park and by the Department of Interior's apparent obliviousness to the problem. It felt obligated to force the agency to take meaningful action. Because the trial focused on the issues of damage to the park and the adequacy of the cooperative agreements, other issues, such as the availability of funds and a remedy in general, were not satisfactorily briefed or properly decided. Thus, these issues remained unresolved until issuance of Sierra Club III302 a year later; in the interim the meaning of Sierra Club's "victory" remained unclear.

298. 398 F. Supp. at 294, 8 ERC at 1020-21.
299. Id., 8 ERC at 1021 n.7.
300. Id., 8 ERC at 1020-21.
301. The court apparently inserted the directive in question on its own motion. The Sierra Club had not prayed for such relief. Joint Pre-trial Statement at 9.
From July 1975 to June 1976 the Department of Interior administered the Redwood Park under the supervision of the United States District Court. During this period the agency filed five reports with the court concerning efforts to comply with the court's directive to provide additional protection for the park. In addition, the court held a number of formal hearings and informal "in chambers" conferences regarding compliance with the court's order. At the end of the eleven months the agency had not entered into any new contracts or cooperative agreements with, or acquired any property interests from, the owners of land around the park. Nor had park boundaries been modified to establish a more viable unit. Timber harvesting continued in the Redwood Creek basin; although logging practices had been modified substantially, future harvesting presented a serious threat of additional damage to the park. In brief, the Sierra Club was never afforded a remedy. Nonetheless, in June 1976 the court dismissed the Sierra Club suit and issued its final opinion—Sierra Club III. In Sierra Club III the court purged defendants of their previously found failure to fulfill their trust and statutory duties and found:

[T]he Department of the Interior has now in good faith and to the best of its ability attempted to exercise those powers and to perform those duties as far as possible within the limits of powers and funds provided by the Congress.

Some understanding of this apparently anomalous result can be gained from an examination of the five remedies that the court and the parties contemplated during the course of the supervisory year. These five remedies were: (1) reliance on state regulation; (2) reliance on voluntary cooperation by the logging companies; (3) acquisition of "buffer zones" around the park; (4) a resort to Congress for additional authority; and (5) litigation against the logging companies.

A. Reliance on State Regulation

In accordance with the directive of Sierra Club II to "take reasonable steps" to assure adequate protection of park resources, the Department of Interior first decided to seek protection for the park through a means not specifically mentioned by the court—regulation of timber harvesting by the State of California. The logic behind this strategy was unassailable; all harvesting plans were submitted to the California State Board of Forestry for approval. Unlike the Department of Inte-

303. Id. at 173, 8 ERC at 2197.
304. Id.
305. Id. at 175, 8 ERC at 2199.
rior, the Forestry Board has authority to impose unilaterally harvesting restrictions on the logging companies. The problem was to convince the State Board of Forestry to act to protect a federal resource. Applicable state forestry regulations had failed to provide adequate protection for the park since its establishment in 1968.

The failure of California forestry laws to protect the Redwood National Park reflected in part the disarray of California forestry regulation. In 1971 the California Forest Practice Act had been declared unconstitutional in *Bayside Timber Co. v. Board of Supervisors of San Mateo County.* The State Forestry Board limped along on emergency legislation until passage of the Z'berg-Nejedly Forest Practice Act of 1973. Although the new act took effect in 1974, it was not fully effective or operational until 1975.

No sooner had the new Forest Practice Act become operational than a fresh controversy developed, arising directly out of the Redwood National Park situation. In June 1973, the Natural Resources Defense Council (NRDC) had brought suit against the companies conducting logging operations in the Redwood Creek basin, alleging, *inter alia,* that the harvesting operations constituted a public nuisance. Although the nuisance portion of the lawsuit languished, NRDC prevailed on a related claim; in January 1975, the court ruled that the California Environmental Quality Act requires all timber harvesting plans submitted to the State Board of Forestry to be accompanied by an environmental impact report. The Board worked through 1975 to adopt new regulations to conform to the *NDRC* ruling. In late 1975, the legislature passed a bill which in effect permitted the information contained in the timber harvesting plans to be substituted for separate

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306. **CAL. PUB. RES. CODE §§ 4551.5, 4583 (West Supp. 1978).**
310. **1976 Hearings, supra** note 24, at 752 (subsequent response to questions by Claire Dedrick, then-Secretary, California Resources Agency).
312. **CAL. PUB. RES. CODE §§ 21000-176 (West Supp. 1978).**
314. **1976 Hearings, supra** note 247, at 34-35 (statement of Lewis Moran, Director, California Dep't of Conservation).
environmental impact reports.315

In November 1976, following this major upheaval in California’s forestry regulation regime, the National Park Service made a formal presentation to the State Board of Forestry.316 The report explained in detail the damage that the Redwood National Park was suffering as a result of state-approved logging operations and recommended that specific restrictions be imposed on timber harvesting in the Redwood Creek basin. These restrictions included no-cut buffer zones near streams and within 150 feet of the park, limitation on total diennial harvest to thirty percent of a watershed, high-lead cable yarding on slopes over thirty percent, special restraints on harvesting within 800 feet of the park (including prohibition of the use of bulldozers), and detailed restrictions on road construction.317 In January 1976 the Board of Forestry declined to impose any of these restrictions.318 If park resources were to be protected, federal initiatives would be required.

B. Cooperative Agreements

The second remedy pursued by the Department of Interior, suggested by the court in Sierra Club II, was negotiation of more-satisfactory cooperative agreements with the logging companies. In July 1975 the Department of Interior requested that the logging companies voluntarily agree to an eighteen-month moratorium on logging in certain areas of the Redwood Creek basin.319 The Park Service also continued its discussions with the companies in an effort to negotiate a new set of cooperative agreements.320 However, the companies refused to agree to either a moratorium or new restrictions, claiming that any additional restrictions would require compensation. By January 1976 the Department of Interior had concluded that further negotiations with the com-

317. ld. at 4-7.
320. Id. at 7.
panies would be fruitless. Nonetheless, in March 1977, the companies unilaterally imposed extensive and detailed restrictions on harvesting operations in the Redwood Creek basin.

Although the restrictions are too detailed and technical to be fully explained here, the basic outlines of the restrictions can be set out. Clearcutting throughout the Redwood Creek basin was limited to forty-acre blocks, with smaller blocks required near designated streams and within 250 feet of the park. High-lead cable yarding was mandated for logging on all slopes over fifty percent. Special requirements were imposed on harvesting near designated streams and within an 800-foot buffer zone around the Redwood Creek corridor, including use of cable yarding and restoration of vegetative cover to cutover land. The annual cut in certain areas presenting critical erosion hazards was limited to twenty-five acres per year. Strict standards of road construction and maintenance were adopted.

Dr. Richard Janda, who had recently completed a comprehensive three-year study of the Redwood Creek basin, compared the self-imposed restrictions with those recommended by the Park Service and concluded:

I am impressed by the extent to which the companies are now willing to modify their practices in order to afford the Park a higher level of protection than that afforded by the so-called Cooperative Agreements. I, nonetheless, detect ten major areas of difference between the companies' proposed restrictions and the Park Service position. Unfortunately, the issues involved in these differences are crucial if the risk of future damage to park resources is to be reduced to the level desired by the Park Service.

One of the deficiencies cited by Dr. Janda was the continuation of logging in certain highly critical areas where the Park Service had asked for deferment. In addition, logging would continue near streams and within 150 feet of the park where the Park Service desired that no-cut buffer zones be established. Tractor yarding would still be allowed on slopes over thirty-five percent.

A number of problems with the self-imposed restrictions were not
noted by Dr. Janda. Clearcutting would continue in blocks of twenty
to forty acres where smaller units were necessary to reduce erosion,331
no limit was placed on the total rate of harvest in the Redwood Creek
basin,332 and no mechanism was created by which the Park Service
could monitor and enforce compliance with the guidelines.333

Although the lumber companies adopted the harvesting restric-
tions voluntarily, they were responding, at least in part, to the pressure
the Sierra Club litigation was generating.334 Despite their limitations,
these restrictions are one of the few concrete protections for the park to
result directly from the Sierra Club suit.

C. Acquisition of Buffer Zones

In Sierra Club II the court had suggested that the Department of
Interior could comply with the court's directive by entering into con-
tracts with, or acquiring property interests from, landowners near the
park pursuant to section 3(e) of the Redwood National Park Act.335
Alternatively, Interior could modify the park boundaries under section
2(a) of the Act.336 Since the Secretary of Interior has eminent domain
powers to acquire property interests,337 these provisions could theoreti-
cally be used to impose restrictions more stringent than those the com-
panies had voluntarily adopted. However, implementation of these
provisions required money. The court again encountered Interior's as-
sertion that all authorized and appropriated funds already had been
designated to pay for lands taken under the 1968 Act.

The availability of funds for acquisition of buffer zones was a
complicated issue because of the unexpected high cost of acquiring
land for the park. The Redwood National Park Act had authorized
future appropriations of up to $92 million from the Land and Water
Conservation Fund;338 $72 million had actually been budgeted by

332. Id. at 3.
333. See id. at 3, 4, 6.
334. Personal interview with Michael Sherwood, Staff Attorney, Sierra Club Legal De-

fense Fund, in San Francisco (Oct. 21, 1977). Though the companies denied that the harvest-
ing restrictions were necessary to protect the park, they explained that they were acting "to
reassure those who feel more protection is important to minimize the risk of damage..."
Letter from J. Frank Leach et al. to Thomas S. Kleppe at 2 (March 2, 1976), Attachment D,
Department of Interior's Status Report of March 5, 1976.
(1976)) (current version at 16 U.S.C.A. § 79c(e) (West Supp. 1978)). See text accompanying
note 144 supra.
(West Supp. 1978)). See text accompanying note 143 supra.
337. See note 145 supra.
(West Supp. 1978)).
1975. However, after the Court of Claims determined that the value of the land taken from one logging company exceeded the government appraisal by $39 million, it became clear that the $92 million authorization ceiling would be exceeded. The Department of Interior accordingly made a $51 million payment, not from the Land and Water Conservation Fund, but from a Supplemental Claims and Judgment Appropriation which Congress approved in 1975. This payment had the anomalous effect of leaving in the Land and Water Conservation Fund $2.8 million which had been appropriated for the Redwood National Park (along with an additional $20 million of authorized but unappropriated funds), even though $120 million had already been spent to compensate owners for lands taken for the park. This amount greatly exceeded the money authorized and appropriated. Furthermore, claims exceeding $140 million remained outstanding.

As noted earlier, in *Sierra Club II* the court had failed to rule on the Secretary's assertion that no funds remained available for acquisition of buffer zones. In October 1975, the Department of Interior filed a Memorandum from the Associate Solicitor which explained in detail the Secretary's conclusion that no funds were available.

The Solicitor pointed out that although the Redwood National


The $49 million claim was subsequently settled for $35 million plus interest at the rate of 6.6% from the date of taking, totaling $51 million. Letter from Nathaniel P. Reed to James P. Haley, *supra* note 340, at 449. For an explanation of the statutory provisions governing payment of compensation for lands taken for the park, see note 137 *supra*.


As of July 1977, total cash payments for lands taken, including interest and severance damages, amounted to $129 million. In addition, land valued at $52 million had been exchanged. Comptroller General, *supra* note 136, app. I. There is evidence that the timber companies were overcompensated for lands taken. When negotiations between the companies and the government reached an impasse, the companies filed suit in the Court of Claims. The Court of Claims refused to apply a "discount factor" in assessing the value of the lands taken. A discount factor is a standard appraisal technique by which the value of land and timber is discounted (reduced) to reflect the deflationary effect of large sales on the market price. A discount factor had been previously applied in assessing the value of Forest Service lands turned over to the logging companies. *Id.* at 6-7. Thus, the companies received excessive payments for their land and benefited from the use of non-uniform appraisal techniques. In addition, interest in the amount of $34 million had to be paid because of the delay in resolution of the companies' claims. *Id.* at app. I.

Park Act included an authorization ceiling of $92 million, it also provided that title to most lands within the park boundaries would vest in the United States immediately upon enactment of the Act.\textsuperscript{346} Congress specifically stated in the Act that "The United States \[would\] pay just compensation" for lands legislatively taken.\textsuperscript{347} By passing the Act the United States had thus pledged its full faith and credit to compensate owners for lands taken;\textsuperscript{348} failure to make promised payments would have violated the constitutional proscription on taking without just compensation.\textsuperscript{349} The Solicitor further noted that the conference report accompanying the Act indicated that money judgments for lands taken could be paid in the same manner as ordinary judgments against the United States, that is, "by being included in the items 'Claims and Judgments' . . . which is [sic] regularly transmitted to the Congress for appropriations."\textsuperscript{350} On this basis, the Solicitor determined that the Act had implicitly authorized claims and judgments appropriations (and payments therefrom) in excess of the $92 million authorization ceiling to the extent necessary to provide constitutionally mandated compensation for lands legislatively taken.\textsuperscript{351} In order to provide the necessary compensation, Interior had requested, and Congress had passed, a supplemental appropriation.\textsuperscript{352}

Noting, however, that the authorization ceiling applied to "land acquisition to carry out the provisions of this Act,"\textsuperscript{353} the Solicitor concluded that Congress had intended the $92 million authorization to "cover all land acquisition subject only to the constitutional requirement that just compensation be paid for lands taken by the passage of the Act."\textsuperscript{354} The Solicitor thus found that, in view of the over $92 million already spent on land acquisition, "[t]here [was] no further authorization available for a discretionary land acquisition program."\textsuperscript{355}

Although the Solicitor's analysis was sound, the court apparently was not satisfied; it repeatedly requested further clarification regarding

\begin{itemize}
\item \textsuperscript{347} \textit{Id.} § 3(b)\textsuperscript{82} (codified at 16 U.S.C. § 79c(b)(2) (1976)) (current version at 16 U.S.C.A. § 79c(b)(2) (West Supp. 1978)). See note 137 \textit{supra}.
\item \textsuperscript{348} 1968 CONF. REP., \textit{supra} note 133, at 8.
\item \textsuperscript{349} U.S. \textit{CONST.} amend. V; \textit{e.g.}, Monongahela Navigation Co. v. United States, 148 U.S. 312 (1893).
\item \textsuperscript{350} 1968 CONF. REP., \textit{supra} note 133, at 10.
\item \textsuperscript{351} Solicitor's Memorandum, \textit{supra} note 339, at 4.
\item \textsuperscript{352} See authorities cited in note 341 \textit{supra}.
\item \textsuperscript{355} Solicitor's Memorandum, \textit{supra} note 339, at 9.
\end{itemize}
the status of unobligated monies.\textsuperscript{356} The Department of Interior's only response was to re-submit its analysis.\textsuperscript{357} The court eventually was convinced and in \textit{Sierra Club III} concluded:

It thus appears that all presently authorized funds have been in effect committed for compensation for lands already taken for the Park—leaving nothing for the acquisition of new additional land interests or other protective expenditures.

We, therefore, agree with Interior's position and find that none of the presently authorized funds are available for those purposes—certainly not without some indication or action of the Congress.\textsuperscript{358}

\textbf{D. Resort to Congress}

The lack of available funds required a resort to the other remedy specifically suggested by the court in \textit{Sierra Club II}—a request to Congress either for additional funds to allow Interior to exercise its existing authority or for additional authority to regulate timber harvesting on lands within the Redwood Creek basin \textit{without} payment of compensation.\textsuperscript{359} By January 1976 both plaintiff and defendants seemed to agree that a resort to Congress was the only remedy remaining through which greater protection could be afforded the park.\textsuperscript{360} However, the parties disagreed on the proper role of the court in supervising such an action.

The Department of Interior claimed that it lacked authority to submit a request for legislation directly to Congress.\textsuperscript{361} Congress has provided that an executive agency must submit any request for an appropriation of additional funds to the Office of Management and Budget (OMB) for administration approval. Only OMB has authority to actually request additional funds from Congress.\textsuperscript{362} Moreover, by

\textsuperscript{356} See, \textit{e.g.}, Department of Interior's Final Report at 1-2; First Supplemental Order at 3.
\textsuperscript{357} Department of Interior's Final Report at 2-5; Department of Interior's Report Pursuant to First Supplemental Order of March 18, 1976 at 4-5.
\textsuperscript{358} 424 F. Supp. at 175, 8 ERC at 2199. Throughout the litigation the court improperly focused on the availability of authorized funds rather than appropriated funds. Authorized but unappropriated funds would not have enabled the Department of Interior to expend funds to protect park resources.
\textsuperscript{359} In response to a request from the Director of the National Park Service, the Solicitor's office prepared a memo which concluded that the Park Service had no authority under existing law to directly regulate logging practices in the Redwood Creek basin outside the park. Memorandum from Charles Raynor to Assistant Solicitor, Parks and Recreation (June 4, 1976), \textit{reprinted in 1976 Hearings, supra} note 24, at 459, 460-63 [hereinafter cited as Raynor Memorandum].
\textsuperscript{360} Supplemental Sierra Club Statement with Respect to Department of Interior's December 15, 1975 Report at 3-5; Defendants' Reply to the Sierra Club Response to the "Report of United States Dep't of Interior" at 5-6.
\textsuperscript{361} Report of the United States Dep't of Interior, Pursuant to Order of Court Dated July 15, 1975, at 2, 5, 7-8.
\textsuperscript{362} 31 U.S.C. \textsuperscript{\textcircled{15}, 16 (1976).}
long-standing practice, OMB reviews all executive recommendations for new legislation and performs the clearinghouse function of vetoing those proposals not in accord with administration policy. The Sierra Club vigorously disputed the propriety of OMB involvement in non-financial matters, pointing out that OMB has never been given explicit statutory authority to review non-fiscal legislative proposals. It appears, however, that this authority has been properly delegated to OMB through a series of government reorganization plans.

Thus, in February 1976, when the Secretary of Interior sought authority to regulate directly logging on lands outside the park, he submitted the request for legislation to OMB for administration approval. Although this proposal was made in response to the Sierra Club litigation, the Secretary claimed to be operating within his independent discretion; he specifically denied that the court had authority to order such a request. The desired legislation would have authorized the Secretary to identify zones within the Redwood Creek

364. Memorandum of Points and Authorities in Support of Motion to Join the Office of Management and Budget (OMB) and James T. Lynn, its Director, as Parties Defendant...
366. A reorganization plan promulgated by President Roosevelt in 1939 authorized OMB's predecessor, the Bureau of the Budget, to:

[A]ssist the President by clearing and coordinating departmental advice on proposed legislation and by making recommendations as to Presidential action on legislative enactments, in accordance with past practice.

Exec. Order No. 8248, 4 Fed. Reg. 3864 (1939). Although President Roosevelt did not cite any specific authority for the powers he purported to delegate, the delegation was apparently based on the President's constitutional powers. U.S. CONST. art. II, § 1, cl. 1 provides:

The executive Power shall be vested in a President of the United States of America.

U.S. CONST. art. II, § 3 provides:

[The President] shall from time to time give to the Congress Information on the State of the Union, and recommend to their Consideration such Measures as he shall judge necessary and expedient . . . .

These two provisions, read together, appear to authorize the president to coordinate and, if necessary, disapprove, requests by executive agencies for new legislation.


Since these delegations satisfied the statutory requirement that they not authorize an agency to exercise a function "not expressly authorized by law," 5 U.S.C. § 905(a)(4) (1976), the reorganization plans legally authorized OMB to review non-financial legislative proposals submitted by other executive agencies.

368. Id. at 1.
basin where land-use practices constituted a threat to park resources, and would have provided that:

The Secretary shall promulgate and enforce such reasonable rules and regulations, including reasonable restrictions on harvesting of timber, within such zones as are necessary to provide continuing protection to lands and other resources within the park.\textsuperscript{369}

The proposed legislation might have provided increased protection for park resources.\textsuperscript{370} The bill, however, was disapproved by OMB in May 1976.\textsuperscript{371}

Of course, OMB's refusal to transmit this legislative proposal to Congress did not, per se, frustrate the court's ability to afford relief to the Sierra Club. OMB could be made a party to the lawsuit as easily as the Department of Interior; as a party, it could be directed to comply with valid court orders. Recognizing this possibility, Sierra Club moved to join OMB as a party defendant in April 1977.\textsuperscript{372} At a hearing on the Sierra Club's motion, the court indicated it would grant the motion.\textsuperscript{373}

\textsuperscript{369} A [Draft] Bill to amend [sic] the Act of Oct. 2, 1968, \ldots at 2, Attachment A, Department of Interior's Status Report of March 5, 1976. The draft bill further provided that "any regulation adopted by the Secretary that is deemed by a court of competent jurisdiction to require the taking of a property interest compensable under Article [sic; should read Amendment] 5 of the Constitution of the United States shall be of no effect." \textit{Id.} at 2-3.

\textsuperscript{370} The Sierra Club applauded the Secretary for taking action, but expressed reservations about the proposed legislation, noting that "it contains no specifics [sic] or even general criteria or guidelines as to what the regulations must contain, nor does it set forth any deadline for the promulgation of such regulations." Supplemental Response of Sierra Club to Department of Interior's "Final Report" at 2.

\textsuperscript{371} OMB disapproved the proposed bill for the reason as follows:

By attempting to extend the degree to which the Federal Government can regulate the use of private property without creating a compensable taking, the bill would provide for a precedential and major expansion of the property clause of the U.S. Constitution which we believe should not be undertaken.


OMB did not cite any authority in support of its assertion. One noted scholar has called OMB's conclusion "at best dubious." Sax, \textit{Helpless Giants: The National Parks and the Regulation of Private Lands}, 75 Mich. L. Rev. 239, 250 (1976) [hereinafter cited as Sax, \textit{Helpless Giants}]. The Department of Interior subsequently prepared a carefully reasoned legal memorandum which concluded that the proposed regulatory authority would not fail as an uncompensated taking. Raynor Memorandum, \textit{supra} note 359, at 475-90. A contemporaneous Supreme Court decision held that the federal government may regulate wild burros on nonfederal lands in order to "achieve and maintain a thriving natural ecological balance on the public lands." Kleppe v. New Mexico, 96 S. Ct. 2285, 2287 (1976). In light of the lack of authority in support of OMB's implication that the proposed regulation would constitute a compensable taking, the conclusion is inescapable that OMB's disapproval of the proposed legislation was motivated by political rather than constitutional considerations. For a discussion of the constitutional limits on the authority of the Park Service to regulate private lands, see Sax, \textit{Helpless Giants}, \textit{supra} at 270-99.

\textsuperscript{372} Motion to Join the Office of Management and Budget (OMB) and James T. Lynn, its Director, as Parties Defendant \ldots

\textsuperscript{373} Reporter's Transcript at 45-49 (April 9, 1976).
but the order was never formally approved by the court. In *Sierra Club* *III* the court not only denied the motion to join OMB, but dismissed the entire lawsuit.\(^{374}\) It refused to intervene further in the executive determination of whether to submit a legislative proposal to Congress. Apparently, the court was concerned that such intervention constituted improper involvement of the judicial branch in executive and legislative matters. Intervention struck the court as particularly inappropriate where it involved OMB, an arm of the Executive Office of the President.\(^{375}\) The court stated, "such decisions . . . involve new policy-making which is the exclusive function of the Congress and the Executive under the doctrine of separation of powers."\(^{376}\) The court’s discussion of the separation of powers doctrine is devoid of citation to authority,\(^{377}\) as was the briefing by the parties.\(^{378}\) No cases directly discuss the power a court might have to direct an executive agency to submit a legislative proposal to Congress; this lack of authority may reflect a long-standing judicial practice of nonintervention in such matters. Nonetheless, the doctrine of separation of powers is sufficiently developed to provide a fairly clear resolution of this issue.

Separation of powers is not specifically mentioned in the constitution, but the doctrine flows from the constitutional scheme of a tripartite government.\(^{379}\) Under this scheme:

> [A]ll the powers intrusted to government . . . are divided into three grand departments, the executive, the legislative, and the judicial. . . . [T]he functions appropriate to each of these branches of government shall be vested in a separate body of public servants, and . . . the perfection of the system requires that the lines which separate and divide these departments shall be broadly and clearly defined.\(^{380}\)

The doctrine proscribes any branch of government from performing functions entrusted to another branch.\(^{381}\)

In response to the restrictions imposed by the separation of powers doctrine, the Supreme Court has developed the requirement of justiciability and the related "political question" doctrine.\(^{382}\) Although many factors are considered in determining justiciability,\(^{383}\) and the

\(^{374}\) 424 F. Supp. at 175-76, 8 ERC at 2200.


\(^{376}\) 424 F. Supp. at 175, 8 ERC at 2199.

\(^{377}\) *Id.*, 8 ERC at 2199-200.

\(^{378}\) *See, e.g.*, Defendant’s Reply to the Sierra Club Response to the “Report of the United States Dept’t of Interior” at 3, 5-6; Supplemental Sierra Club Statement with Respect to Department of Interior’s December 15, 1975 Report at 5-6.


\(^{380}\) Kilbourn v. Thompson, 103 U.S. 168, 190-91 (1880).

\(^{381}\) *Id.* at 191; United States v. Nixon, 418 U.S. at 704; Springer v. Philippine Islands, 277 U.S. 189, 202-03 (1928).


Court itself has acknowledged that the requirement is "one of uncertain and shifting contours," the preeminent consideration is "textual commitment." Where there is found "a textually demonstrable constitutional commitment of the issue to a coordinate political department," federal courts will decline to intervene.

Applying this test to the issue at hand, it appears that the preparation and submission of legislative proposals is a matter textually committed to the executive and legislative branches. Article I of the Constitution states, "All legislative Powers herein granted shall be vested in a Congress of the United States . . . ." The Constitution gives the President only two roles in the legislative process, "the recommending of laws he thinks wise and the vetoing of laws he thinks bad." The judiciary performs no function at all in the legislative process. Accordingly, the Supreme Court has repeatedly held that federal courts cannot issue advisory opinions regarding the validity or wisdom of proposed legislation. Under the separation of powers doctrine, such opinions would constitute improper judicial involvement in the legislative process.

Under this analysis the Sierra Club court lacked authority to order any executive agency, whether OMB or the Department of Interior, to submit a particular piece of legislation to Congress. The court indicated as much in Sierra Club III:

- It is beyond the province of this court to say whether and, if so, to what extent the Congress or Executive should act—much less to order such action . . . .
- Any further orders of this court, designed to mandate the Congress or the Executive to act to provide new legislation [or] new funds[,].

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388. Youngstown Co. v. Sawyer, 343 U.S. 579, 587 (1952); see U.S. CONST. art. I, § 7, cl. 2-3; id. art. II, § 3.
389. See U.S. CONST. art. III.
392. But see Henkin, Is There a "Political Question" Doctrine?, 85 YALE L.J. 597 (1976): The Supreme Court has not recently held any issue to be textually committed by the Constitution to the other branches and therefore not justiciable—a "political question." [fn.] And the Court's failure to require judicial abstention in those instances where scripture can most plausibly be read to require it leaves a strong sense that the present Justices are not disposed to find many—or any—issues in fact so textually committed.

Id. at 604-05. Cf. Powell v. McCormack, 395 U.S. at 520-21, 547-48 (Constitutional prescription in art. I, § 5, cl.1 that "Each house shall be the Judge of the . . . Qualifications of its own Members" only confers upon Congress the power to judge whether elected members possess the constitutionally prescribed qualifications for membership, and not an unreviewable power to set new qualifications for membership.)
no matter how well intended by the court or how desirable for the protection of the Park, would be an extrajudicial and, therefore, futile injection of this court into the prerogatives of the Congress and the Executive.393

The difficulty, of course, is that in Sierra Club II the court had ordered defendants to "resort to the Congress" if reasonably necessary to protect the park.394 In Sierra Club III the court acknowledged that the Department of Interior was not mandated by law to resort to Congress, and explained that the earlier order was an attempt "to assure that Interior had gone as far as it legally or practically could go in an attempt to exercise its powers and perform its duties under existing law."395 This explanation is not satisfactory; courts are not in the business of compelling parties to take actions not legally mandated. The original order to "resort to the Congress" was improper.

With the "resort to the Congress" provision of the order eliminated, the funding problem remained unsolved (and apparently insoluble by the judicial branch). Lack of funding made the other remedies suggested in Sierra Club II unavailable, or at least inadequate.

E. Litigation Against the Logging Companies

Litigation against the companies logging in the Redwood Creek basin was the last means available to the Department of Interior to protect the Redwood National Park. This avenue had not been discussed by the court in Sierra Club II, but the plaintiff formally suggested the possibility of legal action against the companies to the court in January 1976.396 In response, the court directed Interior to determine what causes of action might exist against the companies.397 The purpose of litigation would have been to enjoin harvesting practices that were unreasonably injurious to park resources.

1. Existence of a Cause of Action

The Sierra Club and the Department of Interior seemed to agree that the damage the Redwood National Park was suffering from logging on adjacent property could be the basis for injunctive relief against the companies.398 While the precise rights and remedies of the Department were never litigated, Interior may have had a cause of ac-

393. 424 F. Supp. at 175, 8 ERC at 2199-200.
395. 424 F. Supp. at 175, 8 ERC at 2199 n.2.
396. Sierra Club Response to Department of Interior's Report to Congress at 3; see also note 280 supra.
397. Department of Interior's Final Report at 2; see also First Supplemental Order at 2.
398. Supplemental Sierra Club Statement with Respect to Department of Interior's December 15, 1975, Report at 7-8; Department of Interior's Final Report at 11-12.
tion against the companies for creating a "public nuisance" under California law.\footnote{399}

"Public nuisance" is a field of tort law affording protection against injury to interests "common to the general public."\footnote{400} Thus a nuisance suit is distinguished from other actions by the type of injury—in other respects, general tort principles govern.\footnote{401} The requisite elements of a cause of action for nuisance are those common to tort law: injury, causation, and unreasonableness.

The first requirement of a nuisance action is injury. Actual damage is not required; threatened injury is sufficient to warrant injunctive relief.\footnote{402} However, the harm in question must be substantial.\footnote{403} Nuisance law can provide relief from a wide range of injuries. California law defines nuisance broadly:

Anything which is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property, or unlawfully obstructs the free passage or use, in the customary manner, of . . . any public park . . . \footnote{404}

This definition appears to encompass the physical and aesthetic injury to the Redwood National Park.

The damage to the Redwood National Park was well-documented in 1976. In addition to the evidence produced at trial,\footnote{405} Dr. Janda had by this time completed a comprehensive study of the Redwood Creek basin. In his report, Dr. Janda observed that: increased sediment transport had resulted in the filling of many fish-rearing pools, aggradation of the streambed measured as much as fifteen feet in some areas up-
stream from the park, and the resulting braided stream pattern had caused frequent shifting of streambed materials, threatening benthic organisms and fish eggs. Stream bank erosion, landslides, and logging had resulted in loss of canopy vegetation along Redwood Creek and its tributaries, further damaging the aquatic habitat by increasing summer water temperatures and decreasing concentrations of dissolved oxygen. Aesthetic damage was documented as well:

The visual character of Redwood Creek's alluvial plain has been modified by deposition of sawed logs, battered culverts and logging cables.

... The physical appearance of [tributary] streams has been drastically changed. Pools have been filled and sculptured logs and streamside vegetation buried by fine gravel. Unfilled pools show a recent layer of brownish silt and fine sand.

Slopes away from stream channels were modified less severely. It appears then that injury, the first element of a cause of action for nuisance, was present.

The second requirement of a nuisance action is causation; the injury in question must have been caused, or be threatened, by the conduct to be enjoined. Although in Sierra Club II one court had found that the damage to the park was occurring as a result of logging in the Redwood Creek basin, the logging companies were not parties to the Sierra Club litigation. They could be expected to vigorously dispute any causative link between the deterioration of the Redwood Creek unit of the national park and nearby logging activity. This challenge could not be dismissed out of hand. The ecological processes at work in the Redwood Creek basin are subtle and complex; determination of the "cause" of disruption is difficult.

Dr. Janda's report is the most authoritative study of the deterioration of the Redwood Creek basin. It concludes:

The major modifications of park resources appear primarily to reflect recent increases in suspended-sediment concentration, suspended-sediment discharge and rates of bedload transport.

The increased sediment transport and runoff, in turn, reflect the combination of recent floods and intensive timber harvest. Ongoing studies indicate that the large scale, tractor-yarded, clearcut harvesting of old-growth redwood has substantially increased peak storm discharge, suspended sediment concentrations, and bedload

407. Id. at 5.
408. Id. at 3.
409. Id. at 7.
Dr. Janda noted, however, that "a quantitative apportioning of recent modifications of park resources into natural and man-induced categories is presently not possible" and speculated that "[W]ithout any timber harvest, the floods of 1972 and 1975 would undoubtedly have drastically modified many park resources." Nonetheless, he concluded that "it is possible to identify some aspects of recent timber harvest operations that have had a recognizably deleterious impact upon the erosional stability of the Redwood Creek basin." Since the remedy sought in litigation against the logging companies would have been injunctive relief from injurious practices rather than assessment of damages (with concomittant apportionment of liability), Dr. Janda's conclusions would appear to establish the necessary element of causation.

The final requirement of a nuisance suit is that the offending conduct must be "unreasonable." Although nuisance actions can be based on theories of strict liability, intentional tort, or negligence, conduct will not be deemed a nuisance under any theory unless it constitutes unreasonable use of land. In deciding if conduct is unreasonable, a court will look to the "totality of circumstances" and will balance all the interests involved. Furthermore, even where the offending action admittedly constitutes a nuisance, injunctive relief may be denied if the benefits of that use outweigh the harm to the infringed activity.

Since injunctive relief for nuisance is governed by a balancing test, it is impossible to determine the exact characteristics of the judicial relief available to the Department of Interior. The park resources threatened by logging operations have unmatched aesthetic, recreational, and spiritual value. The injury to these resources is serious and irreparable. There is precedent in California for the proposition that injunctive relief should be granted when a nuisance "would destroy vegetation . . . that may be of peculiar value to the owner . . . ."

413. Id.
414. Id.
The logging companies probably could not be enjoined from logging altogether, but more restrictive harvesting practices could be imposed.

2. Settlement of Threatened Litigation

Apparently with these principles in mind, the Department of Interior in April 1976 requested the Attorney General to "initiate legal action to enjoin certain timber harvest practices on private lands upstream and upslope of the Redwood Creek portion of Redwood National Park . . ." In response to this request, the Department of Justice entered into settlement negotiations with the logging companies in an effort to obtain improved harvesting practices.

These negotiations were still taking place in June 1976 when Sierra Club III was dismissed. The court concluded that an order directing the executive to initiate litigation against the companies would constitute "an extra-judicial and, therefore, futile injection of this court into the prerogatives of . . . the Executive." This holding was correct; the separation of powers doctrine prevents a court from directing the attorney general to initiate litigation. Despite the dismissal of the lawsuit, the settlement agreements of November 1976 negotiated be-

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421. Letter from H. Gregory Austin, Solicitor, Department of the Interior to Edward Levi, Attorney General, United States Dep't of Justice (Apr. 7, 1976) at 1, Attachment I to Certificate of Counsel.

422. 1976 Hearings, supra note 24, at 539 (prepared statement of Peter Taft, Assistant Attorney General, United States Dep't of Justice). In 1976 the logging companies were defending two other suits alleging that harvesting operations in the Redwood Creek basin constituted a public nuisance. In 1974 the California attorney general sought an injunction against the three companies. Id. at 33 (statement of Lewis Moran, Director, California Department of Conservation). This suit was settled in January 1977 on terms substantially similar to the settlement of the federal nuisance action. Hearing on Forest Management and Redwood National Park Pt. 2 Before a Subcomm. of the House Comm. on Government Operations, 95th Cong., 1st Sess. 43-44 (1977) (statement of Michael Sherwood, Staff Attorney, Sierra Club Legal Defense Fund) [hereinafter cited as 1977 Hearings]. As discussed in text accompanying note 311 supra, the Natural Resources Defense Council filed a nuisance suit against the timber companies in June 1973. The nuisance portion of this suit has yet to go to trial, and NRDC presently has no plans to pursue the lawsuit. Telephone interview with Jim Frankel, Staff Attorney, NRDC, in Palo Alto (Nov. 16, 1977).

423. 424 F. Supp. at 175, 8 ERC at 2200.


425. E.g., Redwoods Agreement between United States of America and Louisiana-Pacific Corp. (Nov. 8, 1976), reprinted in 1976 Hearings, supra note 24, at 728 [hereinafter cited as Redwoods Agreement]. The agreements with Arcata National Corp. and Simpson Timber Co. are substantially identical.
tween the Department of Justice and the logging companies pursuant to dismissal of the nuisance action may be attributed to the *Sierra Club* litigation.426

The settlement agreements provided a procedural mechanism by which the Department of Interior could review harvesting plans, but they did not resolve any substantive issues regarding harvesting practices. The companies made no commitment to change their methods,427 but the agreements specifically left to the Justice Department the option of seeking further judicial relief.428 Under the pact, the Park Service could review timber harvesting plans and make site-specific inspection before the proposals were submitted to the California State Board of Forestry. In the event that the Park Service found the plans objectionable, the agreements provided only that the Service could file its objections with the company and with the California State Forester.429 Although the effectiveness of these settlements is questionable, they did correct a shortcoming in the earlier cooperative agreements—the lack of a mechanism for even partial supervision of industry practices. Any additional protection provided by the pacts depended on cooperation of the companies or the State of California.

**F. Dismissal of the Sierra Club Suit.**

It had become apparent by June 1976 that the court would not provide meaningful protection for the Redwood National Park. All of the possible courses of action suggested by either the court or the parties had been explored and had proven either unavailable or inadequate. The State of California had declined to impose more stringent harvesting restrictions on the companies. While the companies had voluntarily agreed to certain restrictions, the Park Service and the *Sierra Club* considered these concessions insufficient. No funds were available to more fully implement sections 3(e) and 2(a) of the Redwood National Park Act.430 Litigation against the companies and legislative action were potentially workable solutions to the park problem, but the court had no authority to intervene in such matters. Having reached this impasse, the court dismissed the lawsuit,431 concluding that "the Department of the Interior has now in good faith and to the

426. See text accompanying notes 396-97 *supra*.
428. *E.g.*, id. at 731.
429. *E.g.*, id. at 729-31.
430. See text accompanying notes 338-58 *supra*.
431. The court purged defendants of their "previously found failure" to fulfill their statutory and trust duties, and discharged defendants "from further obligation to comply with or further report upon" the directives of *Sierra Club II*, "insofar as such compliance or reporting involves new, additional legislation, funds or litigation." 421 F. Supp. at 175-76, 8 ERC at 2200.
best of its ability attempted to exercise those powers and perform those duties as far as possible within the limits of powers and funds provided by the Congress.\textsuperscript{432}

In retrospect, the court did not dismiss the Sierra Club suit because circumstances had changed. The Sierra Club was left without a remedy because the court belatedly decided the previously unresolved questions regarding the availability of funds and the constitutional limits on the court's power. These issues were ripe at the time of trial and should have been resolved in Sierra Club II. Failing to resolve these issues, the court mistakenly concluded in that opinion that the Department of Interior had a legally enforceable duty to provide additional protection for the park. The court thereupon put itself in the precarious position of attempting to order a remedy when it lacked the authority to fashion an effective one. After one year of futile efforts to fashion a remedy, the court concluded:

\begin{quote}
[In order adequately to exercise its powers and perform its duties in a manner adequately to protect the Park, Interior now stands in need of new Congressional legislation and/or new Congressional appropriations.

It follows that primary responsibility for the protection of the Park rests, no longer upon Interior, but squarely upon Congress to decide whether and, if so, when, how and to what extent new legislation should be passed to provide additional regulatory powers or funds for protection of the Redwood National Park.

To a lesser extent—some responsibility rests upon the Executive
\end{quote}

The foregoing excerpt from Sierra Club III also represents a substantially accurate description of the legal posture of the Sierra Club case at the time of trial.

VII

THE IMPACT OF SIERRA CLUB V. DEPARTMENT OF INTERIOR

A. Immediate Accomplishments

From a legal perspective, the Sierra Club lawsuit accomplished relatively little. Once it had been determined that no funds were available to acquire buffer zones, a judicial remedy was effectively precluded. The remaining available remedies—voluntary cooperation of the logging companies, litigation against the companies, and a resort to legislative action—were beyond the jurisdiction of the court.

However, from a practical perspective the lawsuit accomplished a

\textsuperscript{432} Id. at 175, 8 ERC at 2199.
\textsuperscript{433} Id.
great deal. The Sierra Club regards the action as a highly successful "consciousness-raising effort." The litigation alerted many participants, including the Park Service itself, to the precarious position of the park. In one sense, the suit was motivated less by the Park Service's failure to acquire buffer zones (the ostensible legal issue) than by the general pattern of neglect that characterized park administration. The litigation succeeded in jolting the Park Service out of its pattern of neglect.

During the lawsuit, the Department of Interior and the Park Service became substantially more sensitive to the problems in the park and began to play a more aggressive role in its preservation. Interior took a number of measures that, although not necessarily within the power of the judiciary to order, were within the duties of the agency in its role as guardian of the park. The Park Service sent reports to Congress and to the California State Board of Forestry, submitted requests for legislation to OMB, elicited greater cooperation from the logging industry, and requested that the Department of Justice file a lawsuit against the companies. In March 1977 the Park Service prepared an options paper which discussed proposals to expand the park. This flurry of activity stands in marked contrast to the years of inaction that preceded the Sierra Club suit.

The Sierra Club litigation had beneficial effects on non-parties. The logging companies, for example, watched the progress of the lawsuit closely. The voluntary imposition of harvesting restrictions was a response to the Sierra Club suit. Most important, the lawsuit brought the situation to the attention of Congress. The end of the Sierra Club litigation marked the beginning of a legislative effort to provide the Redwood Park with adequate protection from the effects of adjacent logging.

B. Legislative Activity Over the Redwood National Park

Three months after the decision in Sierra Club III, a subcommittee of the House Committee on Government Operations, chaired by the late Rep. Leo Ryan, began oversight hearings on the Redwood National Park. At these hearings the message of Sierra Club III—that the

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437. 1976 Hearings, supra note 17, at 77 (prepared statement of Michael Sherwood, Staff Attorney, Sierra Club Legal Defense Fund).
park was in trouble and Congress was the only institution with the resources to remedy the situation—was delivered by the attorney who had represented Sierra Club in the park litigation.\textsuperscript{438} Congress was presented for the first time with a comprehensive view of the two problems confronting the park, and it became apparent that it would have to address itself to their resolution.

The first problem to be considered was the failure of the park to provide an inspiring recreational experience for visitors. From the perspective of the visitor, the park was utterly senseless.\textsuperscript{439} In order to establish a usable park unit, Congress would have to acquire the ridge and hillside areas surrounding the Redwood Creek corridor. These acquisitions would improve access to the Tall Trees Grove, facilitate establishment of a trail network, and eliminate the sights and sounds of continued logging near the grove.\textsuperscript{440} However, many of these ridge and hillside parcels were cutover and all contained less than fifty percent old-growth redwood.\textsuperscript{441} Of the 40,000 acres of virgin growth in Redwood Creek basin still in private hands in 1968, all but 12,000 had been logged by 1976.\textsuperscript{442} Although in time this cutover land could produce beautiful redwood groves, the scars of past logging would mar the park for decades.

Secondly, it was clear that the resources of the park could not be adequately protected, nor could the effects of past logging be mitigated, if the park boundaries remained as established in 1968. To solve these problems Congress would have to follow a three-pronged approach, allowing expansion of the park, regulation of the lumber industry, and

\begin{itemize}
  \item \textsuperscript{438} Id. at 70-87.
  \item \textsuperscript{439} Id. at 36 (statement of Lewis Moran, Director, Calif. Dep't of Conservation).
  \item \textsuperscript{440} See id. at 67 (statement of Dr. Edgar Wayburn, Past President, Sierra Club).
  \item \textsuperscript{441} Acquisition Options, supra note 436, at 7.
  \item \textsuperscript{442} 1977 \textit{GOV'T OPERATIONS REP.}, supra note 141, at 5. At the historical rate of harvest, the remainder of the virgin redwood growth would be cutover within twelve to fourteen years. \textit{Id.} This placed a premium on quick legislative action. The logging companies declined to agree to a moratorium on harvesting in areas slated for park expansion. The California State Board of Forestry forbid harvesting on certain particularly critical sites. The Board's authority to impose such a moratorium was upheld in Arcata Redwood Co. v. State Board of Forestry, No. 61910 (Humboldt County Super. Ct., Sept. 12, 1977). This decision relied heavily on the holding of Natural Resources Defense Council, Inc. v. Arcata National Corp., 59 Cal. App. 3d 959, 131 Cal. Rptr. 172 (1976) (discussed at text accompanying notes 311-13 supra) that the California Environmental Quality Act, \textit{CAL. PUB. RES. CODE} §§ 21000-176 (West Supp. 1978), applies to Forestry Board decisions to approve or disapprove timber harvesting plans. In addition, the Secretary of Interior purchased a tract of land scheduled for immediate logging when the Save-the-Redwoods League donated $1 million to the government. The Secretary then exercised his authority to acquire a scenic screen along Highway 101 pursuant to section 2(d) of the Redwood National Park Act. 1977 \textit{GOV'T OPERATIONS REP.}, supra note 141, at 29. (See note 142 supra for an explanation of section 2(d).) Despite these measures, 1,000 acres of virgin redwood growth slated for acquisition were logged during 1977. S.F. Chronicle, Nov. 22, 1977, at 5, col. 5.
\end{itemize}
rehabilitation of areas already damaged. Indeed, the situation was so out of hand by 1976 that substantial fee acquisitions were advisable to protect the park.

Dr. Janda testified that, although existing logging practices represented a substantial improvement over past methods, considerable erosion and stream damage should be expected if the remaining timber were harvested.

Much of the remaining timber is concentrated in close proximity to major stream channels. It is also concentrated on steep slopes, on slopes which have had a complex history of mass movement.

So the timber that remains is on terrain which is much more inherently susceptible to erosion.

Much of the sediment load in Redwood Creek originated in the upper basin—logged in the 1950's. The sediment caused by logging the old-growth nearer the park could cause significant damage when added to this load. As Dr. Janda stated:

The channel of Redwood Creek is having to bear the brunt simultaneously of natural events and land-use practices which took place in the past [in the upper watershed] as well as the impact of ongoing land-use changes and present climatic events immediately on its borders.

Given the present overloaded condition of the creek, even a small increment of additional sediment can do a disproportionately large amount of damage to riparian and aquatic [sic] resources.

Dr. Janda expressed no confidence that remaining timber could be safely harvested without causing damage to park resources. Therefore, it was desirable to expand the park to include as much nearby uncut redwood growth as possible.

However, expansion of the park alone was not a workable solution for two reasons. Firstly, acquisition of recently cutover land would not remedy the situation, because cutover lands would continue to erode, creating stream sediment and causing damage to park resources. Secondly, acquisition of the entire Redwood Creek watershed was not practical. The Redwood Creek basin is over 61 miles long and includes approximately 180,000 acres. The upper watershed is mostly cutover redwood, brushland, and prairie. Because of this land's prohibitive cost and its minimal value to the park, no expansion proposals recom-
mended its acquisition. Yet, this upper portion was the greatest source of sediment in the basin.

The Department of Interior needed two additional powers to effectively protect the park. Firstly, the Secretary of Interior needed authority to regulate directly timber harvesting practices on lands within the watershed, but which might be left out of an expanded park, so that damage from future harvesting could be mitigated. The Secretary's authority under section 3(e) of the Redwood National Park Act to acquire buffer zones and negotiate cooperative agreements had proved inadequate, since it depended on the cooperation of the logging companies or the appropriation of funds by Congress. Secondly, the Secretary needed congressional authorization for a program to rehabilitate cutover land in the Redwood Creek watershed, whether or not such land was included in an expanded park. According to Dr. Janda, such programs should be carried out to "re-establish a reasonably close facsimile of the original hillslope drainage configuration, and . . . to re-vegetate all areas of bare mineral soil."

Although the three-pronged approach of expansion, regulation and rehabilitation offered the best hope of protecting the resources of the park, there remained the question of whether the suggested remedial actions were too late. In an oft-quoted statement, one California official warned that, because of the enormous sediment load in Redwood Creek, one serious flood could "wipe out" the Tall Trees Grove. Dr. Janda did not concur in this dour assessment, but he agreed that a major flood would be likely to cause substantial damage to the grove. In any event, the stream sediment posing the greatest threat was already in place in upper Redwood Creek and its tributaries. It was clear that additional investment could not guarantee that park resources would be protected.

In March 1977, the Government Operations Committee released its report and recommended the three-pronged approach, including expansion of the park by a minimum of 21,500 acres. This report was the most comprehensive congressional treatment of the Redwood National Park situation, and it served to frame the central issues for other

450. See, e.g., id. at 17; Acquisition Options, supra note 436, at 10.
451. 1977 Hearings, supra note 422, at 59 (statement of Dr. Richard Janda).
452. Id. at 58 (statement of Dr. Richard Curry).
454. Id. at 45-46 (statement of Claire Dedrick, then-Secretary, Calif. Resources Agency).
455. Id. at 431.
456. Id. at 36 (statement of Lewis Moran, Director, Calif. Dep't of Conservation).
committees that subsequently considered park expansion bills. Upon release of this report, a political outcry arose over expansion of the Redwood National Park. During hearings on a bill sponsored by Rep. Phillip Burton to add 74,000 acres to the park, loggers opposed to expansion surrounded the federal building in San Francisco with logging trucks and packed the hearing room. They then embarked on a cross-country caravan to Washington where they attempted to present President Carter with the likeness of a giant peanut carved from a redwood log.

Despite these protests, the Carter administration endorsed a plan to add 48,000 acres to the Redwood National Park. The House Interior Committee amended Rep. Burton’s bill to conform to the proposed administration bill and approved it in August 1977. The bill then passed the House Appropriations Committee without recommendation and was ready to be sent to the floor of the House.

In the meantime, Senator Alan Cranston had introduced the administration bill in the Senate. In late 1977 the Cranston bill passed the Senate Committee on Energy and Natural Resources in somewhat amended form, and was reported by the Senate Appropriations Committee without recommendation. Hopes for quick passage of an expansion bill vanished, however, when House Speaker Tip O’Neill, responding to pressure from organized labor, kept the House bill bottled up in the Rules Committee throughout the remainder of the 1977 session. Speaker O’Neill subsequently promised that park expansion would be considered early in the 1978 session.

The expansion bill reached the floor of the Senate in January 1978, where a series of crippling amendments offered by park opponents was
The Senate passed the bill by a vote of 74-20. Representative Burton then made a few strategic amendments to his bill and maneuvered it out of the House Rules Committee onto the floor, where it passed by a vote of 328 to 60. The two bills were then referred to conference committee for resolution of the differences between them. On March 6, 1978, the conference committee announced that it had reached agreement on a final version. The conference bill passed both houses of Congress easily and was signed into law by President Carter on March 27, 1978.

C. Outline of Redwood National Park Expansion

The expansion legislation added 48,000 acres to the Redwood Creek unit of the park. As indicated above, the expanded park does not include the entire Redwood Creek watershed, but it does follow watershed boundaries much more closely than did the original park. The park now contains 21,460 acres of land upslope from the Redwood Creek corridor. The “worm” thus has become a thing of the past, as the Tall Trees Grove is now protected by ridge-to-ridge acquisitions. The addition of 10,000 acres of watershed upstream from the grove further protects the park. Acquisitions downstream from the Tall Trees Grove create a park that reaches from the ocean to the first inland ridge and whose boundaries reflect natural watershed barriers.

Besides establishing a park designed around ecological realities, the expansion also should significantly improve the park experience for visitors. The addition of lands upslope from the Tall Trees Grove will facilitate access to the grove and eliminate ongoing logging opera-

470. Id. at S959.
477. See text accompanying notes 449-50 supra.
tions nearby. The new park land downstream from the grove links previously fragmented units together into one unified park. This will protect ridge-to-ridge vistas, connect the Tall Trees unit with the ocean, and allow the establishment of a trail network.

The expansion legislation also authorizes the Department of Interior to embark on a program to rehabilitate the Redwood Creek basin. The Act provides that the agency may, either alone or in cooperation with other public or private entities, develop and implement "a program for the rehabilitation of areas within and upstream from the park contributing significant sedimentation... and to the extent feasible, to reduce risk of damage to streamside areas adjacent to Redwood Creek..." The Act authorizes $33 million for rehabilitation purposes.

Although both the Senate and House bills originally granted the Secretary of the Interior the power to regulate logging practices in watersheds tributary to the park, the Act as passed does not include this important provision. Instead, it authorizes the Secretary, after notice to Congress, to acquire any part of a 30,000-acre "Park Protection Zone" in the upper Redwood Creek watershed "upon a finding... that failure to acquire... such lands could result in physical damage to park

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482. See authorities cited in note 479 supra.


484. Id. § 105 (codified at 16 U.S.C.A. § 79n (West Supp. 1978)).

485. In language substantially similar to that in the legislation requested by the Secretary of Interior in 1976, the bills would have provided: [T]he Secretary is... authorized to identify and establish zones where he has determined a need for rules and regulations to protect and preserve Redwood National Park resources from activities and interference occurring on... non-Federal lands... [U]pon finding that the existing State regulation provisions are insufficient to achieve this required protection, the Secretary is authorized to promulgate and enforce reasonable regulations of and restrictions on harvesting of timber and land rehabilitation and management practices within such zones, necessary to provide continuing protection to the lands and other resources within the park.

resources . . . " This provision is designed, in the words of the Senate report, "to provide a basis to further the existing cooperative efforts between the companies and the Secretary concerning necessary park protection needs." However, it is questionable whether this standby acquisition authority will significantly increase the Secretary's leverage in negotiating cooperative agreements with the companies, since its effectiveness depends on the availability of funds. The history of the Redwood National Park suggests that it is unlikely that such funds will be available. Even if money is provided, this provision will necessitate expensive acquisition of old-growth redwood when better harvesting practices might provide sufficient protection for the park. Thus, this power is a poor substitute for the regulatory authority requested by the Secretary.


487. 1977 S. NAT. RESOURCES REP., supra note 464, at 8. The Senate Report states that, "[i]t is contemplated" that no acquisition would occur until 60 days have elapsed from the date of notice to the appropriate Congressional committees. 1977 S. NAT. RESOURCES REP., supra note 464, at 8. The report further states that "the Secretary may proceed to condemn the identified lands after 60 days following notice to the committee, but may not file a declaration of taking on such lands without the specific permission of the committee." Id. at 9. On the floor of the House, Representative Phillip Burton acknowledged that a sixty-day delay could be disastrous when emergency acquisition is necessary, and suggested that "the Secretary of the Interior should keep the appropriate committees advised of difficult harvest plans as the review process proceeds, alert the committees that emergency acquisition may be necessary, and seek their review at that early point in time." 124 CONG. REC. H2018 (daily ed. Mar. 14, 1978).

488. 1977 S. NAT. RESOURCES REP., supra note 464, at 8. The Senate Report states that:

"The Secretary is instructed to develop clear guidelines; no acquisition should take place unless those guidelines are not being met."

Id.


490. Since Congress did not provide funds to establish a contemplated "buffer zone," it is unlikely that Congress will provide a reserve for the contingency that land acquisitions will be necessary. At present the Secretary of Interior has a similar authority to acquire certain private holdings in national parks that are not managed in accordance with standards promulgated by the Secretary. For a discussion suggesting that this authority has proven "ineffective because of a chronic shortage of condemnation funds," see Sax, Helpless Giants, supra note 371, at 242.
The drafters of the expansion Act, like the supporters of the original park legislation, found themselves “racing against chainsaws”; during 1976 and 1977 the companies continued to harvest in areas slated for park expansion. Thus, the expansion Act provides that title to the lands included in the enlarged park vested in the United States immediately upon enactment into law. The legislation also includes provisions designed to correct problems that have plagued park development since 1968. By January 1980, the Secretary of Interior must submit to the appropriate Congressional committees a comprehensive master plan for park development and protection. In addition, provisions encourage the donation of state park lands to the federal government. Finally, the Act includes a $40 million program to provide employment for loggers whose jobs are eliminated by expansion.

D. Prospects for the Future

Although the 1978 Act is a victory for conservationists, it remains to be seen whether park expansion will be successful. To a certain extent the future of the park depends on forces beyond human control, particularly the weather. Present damage has resulted from the interaction of the effects of past logging operations with recent severe floods;

491. See note 442 supra.
493. For example, in order to avoid excessive payments for land acquisition, the Act provides that claims for land taken must be filed in the United States District Court rather than the Court of Claims. Id. § 101(a)(5) (codified at 16 U.S.C.A. § 79c(b)(2) (West Supp. 1978)). The United States District Court, it is believed, will be less generous to the logging companies and has authority to accept deposits (which toll the running of interest). 1977 HOUSE INTERIOR REP., supra note 414, at 19-20; 124 CONG. REC. S945-46 (daily ed. Jan. 31, 1978) (remarks of Sen. Abourezk). For a discussion of the factors that led to the excessive cost of Redwood Park land acquisition, see note 344 supra.
495. Development of a master plan, it was hoped, would satisfy California’s demand that the national park have an articulated management philosophy before the state would turn management of state parks over to the National Park Service. The Act also provides that donation of state park lands may be accepted “subject to such preexisting reverters and other conditions as may appear in the title to these lands . . . .” Act of Mar. 27, 1978, Pub. L. No. 95-250, § 101(a)(3), 92 Stat. 163 (codified at 16 U.S.C.A. § 79c(a) (West Supp. 1978)). These provisions were designed to induce the Save-the-Redwoods League to assent to donation of state park lands to the federal government. See note 153 supra.
496. As this Article was going to press, the State of California was negotiating a “Management Agreement” with the National Park Service pursuant to which the N.P.S. would manage three state parks for a period of fifteen years; title to the park lands would remain vested in the State of California. Although a finalized agreement had not been reached, it was anticipated that a final agreement would be negotiated and approved. Telephone interview with Jack Davis, Deputy Director, Western Region, National Park Service, in San Francisco (Dec. 22, 1978).
the severity of future floods may be the most important factor in the future of the Redwood National Park.

The success of the expanded park also depends on aggressive and creative administration by the Park Service. Protection and rehabilitation of the Redwood Creek watershed require that restoration programs be carried out quickly and effectively. There is reason for hope that the Park Service is now up to the task. It has a much better database than in the past, and has administered the park more aggressively in recent years. The Service is presumably still smarting from frequent criticism of its past management policies.497

Of greater importance, perhaps, is Congress's willingness to grant the Service funds sufficient to protect and rehabilitate the park. Following enactment of the 1968 Act, Congress never provided the additional appropriations necessary to acquire protective buffer zones.498 If this sorry history is repeated, the most aggressive leadership by the Park Service will not prevent present or future injury to the park.

Finally, it must be said that "success" in the Redwood Park context is necessarily a relative thing. The Redwood National Park will never be what it could have been had it been properly established and protected in 1968. Nor, for that matter, could such a park equal one that could have been established twenty years earlier. For decades the Redwood Park will be a sore thumb in the national park system, while the Park Service and visitors patiently wait for nature's slow healing processes to do their work. Eventually, the sediment in the streambed will be reduced, although the streambed will never revert to its earlier form. Second-growth redwood trees will revegetate the vast tracts of cutover land, although they will not match the impressive height of their predecessors for decades or centuries. Perhaps someday the Redwood National Park will become a great national park. Until that time we can enjoy what is left, and wait for development of what may be. That wait is the high price to be paid for years of legislative compromise, administrative neglect, and private irresponsibility.

CONCLUSION

This Article has evaluated developments in the Redwood Park controversy on the basis of information available at the time, in part because of the chronological organization of the Article, and in part because discussion of the *Sierra Club* litigation has necessarily been


498. Of course, it was the responsibility of the Department of Interior to request additional funds. In 1971, officials from Interior advised a Congressional committee that the existing authorization would probably be adequate. 1971 Hearings, supra note 151, at 16 (statement of Robert Eastman, Bureau of Outdoor Recreation).
limited to matters contained in the record. Now that the park has been expanded and studies of the park have been completed, it may be helpful to analyze park establishment and administration with the benefit of the knowledge that has been gained in the interim.

The most surprising insight that retrospection provides is that the "worm," symbolic of the poor planning that went into the Redwood National Park, is not the major cause of the vulnerability of the Tall Trees Grove. The sediment posing the greatest threat to the Tall Trees did not originate in the area around the "worm," but rather in the upper Redwood Creek watershed. Not only was this area largely excluded from even the most ambitious of park proposals, but the logging that produced the sediment had, in fact, occurred prior to park establishment. Thus, even if Congress had approved the 90,000-acre Sierra Club park, Redwood Creek and the Tall Trees Grove would still be facing much the same threat that they do today. This is not to say that establishment of the "worm" has not been costly. Firstly, the continued logging around the Redwood Creek corridor has greatly undermined the aesthetic values of the park. Secondly, the impact of nearby harvesting on a park already severely affected by upstream logging is potentially ruinous. But the essential element of an effective program to preserve the Tall Trees Grove, not fully grasped until the mid-1970's, is a program to rehabilitate the upper Redwood Creek watershed.

It is helpful to examine the 1968 Act in light of this conclusion. In view of the difficulty and expense involved in protecting the Redwood Creek area, one might well inquire whether establishment of a park in the Mill Creek area would have been preferable. Certainly a park that included the entire Mill Creek watershed, as proposed by the Johnson Administration, would have been less expensive and less vulnerable to external influences. Yet, such a park inevitably would have been disappointing from a conservationist's perspective. Firstly, a Mill Creek park would have only rounded out existing state parks. Secondly, the world's tallest trees would have been left in private ownership at a time when thousands of acres of additional redwood old-growth were being acquired.499 These considerations led Congress to create the Redwood Creek unit of the park. Unfortunately, the attempt to preserve a little bit of the Redwood Creek basin has proved impractical; Congress has been faced with the choice of devoting the necessary resources to the conservation effort or admitting that the endeavor is a farce. Although preservation of the coast redwoods may well justify this allocation of funds, it is dubious whether Congress would have committed itself to

499. In fact, the administration proposal included a 1,600-acre Tall Trees unit. See note 105 supra. Thus, establishment of the proposed administration park might well have led to the same resource management problem as exists today.
creation of a Redwood Creek park unit in 1968 had it fully understood the ultimate costs of this decision.

Park administration may also be examined in retrospect with some benefit. This Article has been critical of the Park Service for failing to act earlier to protect the park from the effects of logging in the Redwood Creek basin. Yet it must be said in defense of the Service that early researchers did not understand the threat to the park. The Stone Report, prepared in 1969, while evincing an awareness of the vulnerability of the Redwood Creek unit, limited its recommendations to development of buffer zones within 800 feet of the boundary; it failed to identify the upper watershed as the source of stream sediment. The Curry Task Force Report recognized the threat from the upper watershed, but did not recommend a program to rehabilitate that area.

These inadequacies in the early studies do not justify Park Service inaction. The continued logging around the park, as explained above, was quite destructive. However, these reports indicate that early agency action to protect the park might well have been misdirected; that is, not precisely focused on the greatest threat. Accordingly, the results of such action might have been disappointing. Yet, this sobering fact does not detract from the lesson taught by the Redwood National Park experience; indeed, it confirms it. The ecological processes at work in the Redwood Creek basin were at first not fully understood by human observers. The early studies were deficient because they failed to grasp the essential unity of the entire watershed. This not only underlines the importance of the watershed in the redwood ecology; it suggests that since human understanding of any ecosystem is likely to be incomplete, wilderness preservation requires that entire ecological units be kept largely free of human interference.

If the Redwood National Park has not been successful in many other respects, it has at least brought about a greater realization of this need.