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SOME CURRENT ENVIRONMENTAL ISSUES IN FORESTRY

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I. INTRODUCTION

Contacts with some of the states' leading foresters and a review of recent literature reveal several current environmental and natural resources legal issues that are of growing interest to foresters and other land managers. Three that will be described briefly in this article are on everyone's list. They are: 1) Wetlands, 2) endangered species, and 3) biological diversity, or biodiversity.

Foresters see themselves as professional resource managers. Their conversations and literature indicate a great urgency to shape and lead the various debates concerning what are often considered contradictory demands from governments and citizens respecting land use options, policy formulation and environmental protection. In discussing these three highly controversial issues, one must pay close attention in order to discern the partisan agendas behind highly polemical language used by most participants in the debates.

The three issues are inextricably interrelated. Protection of wetlands¹ and endangered species² is presently provided by statutes and regulations, and the "biodiversity" issue is presently being addressed in Congress³ and in professional forestry literature.⁴

When one is attempting to understand the premises of various interest groups' policy preferences in any natural resources allocation debate, it is instructive to consider some general observations about the resource context and the philosophies of the participants. The philosophical divergences described herein have everything to do with the political stances of foresters, wildlife biologists, conservationists and other citizens.

After twenty-five years of turmoil, which has been broadly

* Presented by J. Owens Smith, Natural Resources Law, Institute of Natural Resources, University of Georgia, Athens, Georgia, to the Twelfth Annual Meeting and Educational Conference of the American Agricultural Law Association, November 1-2, 1991, Sheraton Colony Square Hotel, Atlanta, Georgia.

1. 33 U.S.C. § 1344 (1988).

2. 16 U.S.C. §§ 1531-44 (1988).

3. See H.R. REP. NO. 102-259, 102 Cong., 1st Sess., pt. 1, at 1 (1991).

4. John R. Probst & Thomas R. Crow, *Integrating Biological Diversity and Resource Management*, J. FORESTRY, Feb. 1991, at 12-17.

defined as the "environmental movement," one would think that there would have been achieved a more peaceful plateau or consensus as to what is desirable and "doable" in natural resources management and protection. Sharp polarization among opposing policy preferences on the road to formation of a national land ethic⁵ is probably inevitable. However, one could argue that it is reasonable to have expected the formation of a greater consensus than has apparently been achieved to date. While the literature has not been balanced or weighed to support this estimate, there seems to be as much bickering and division among the contenders now, as there was in the beginning.

Many land managers experience continual frustration with trying to keep up with ever-changing "fixes" from the central authority in Washington. These "fixes" are targeted at solutions to problems that many deny even exist. Many forest and other land management professionals are convinced by practical experiences, by the continuing warfare that is waged at every policy formulation and execution level, by the oscillating nature of political commitment to what at any given time is considered sound environmental management, and by a growing appreciation of the intractable nature of the philosophies and values of the various resource competitors, that the issues, which were first seriously addressed in the late 1960s, will be the subject of many battles extending well into the twenty-first century.

One can discern political and value-based policy preferences that span any descriptive spectrum when one is attempting to establish what might be the "best" position to defend or advocate regarding policy choices that directly impact the twin, hallowed institutions of private property and representative government. Wherever one's position regarding the reconciliation of these often colliding interests "fits" on any political or value-based spectrum, it is necessary to be able to defend that preference in light of legitimate competing interests in the real world *and* in light of traditional views of constitutional norms that arise from "the persistent, long term view[s] of society at large."⁶ In a conference in Buenos Aires, Argentina, in November, 1991, the realities of the implications of the environmental protection solutions proposed

5. Norwin E. Linnartz et al., *Land Ethic Canon, Recommended by Committee*, J. FORESTRY, Sept. 1991, at 18-19; Raymond S. Craig, *Further Development of a Land Ethic*, J. FORESTRY, Jan. 1992, at 30-31.

6. Associate Justice Antonin Scalia, Address at the John A. Sibley Lecture Series, University of Georgia, Athens, Georgia (Apr. 6, 1989).

by a speaker on environmental policy formulation⁷ were repeatedly challenged as being "utopian" when prescribed for people who had to "eat or burn" every resource that came their way. While the population of the United States may not be under that great a stress, it is healthy for policy makers to be required to assess the impacts of their proposed solutions to environmental problems on the people who will have to bear them. In shaping that defense over the years, it has become obvious that there are two major philosophical views that frame and dominate the debate spectrum—both of which are untenable.

On the "left," or at one extreme, are those for whom this writer has coined the phrase "eco-socialists." They often do not approve of many aspects of free enterprise, profit, or fee simple ownership of land. They are egalitarians of various species, and their critical habitat is often some protected niche far from the realities of labor and scratching to make ends meet.

On the "right," or the other extreme of the spectrum, are those who believe property rights are, or should be, virtually absolute, and for whom this writer has coined the phrase, "private property absolutists." They are rural and urban tax-paying property owners who have a twisted, self-serving and internally inconsistent view of the institution of private property. They can be found everywhere and are generally in favor of environmental protection efforts—unless their views of near absolute property rights are threatened.

While compromise often means mediocrity, and "balance" is often a code word for allowing the established authority to continue outmoded policies, the legally correct and ecologically sound position with respect to current issues is somewhere between the "eco-socialists" and the "private property absolutists." There already exists adequate instruction in science and law for the general location of that balance point between the extremes—and its location will not suit either group. That point is, and should be, much closer to the "right" than to the "left."

Early in the environmental movement, it became obvious that common law nuisance theory had developed sufficiently to dispel any absolutist assertions of private property rights. Indeed,

7. J. Owens Smith, *Environmental and National Security in the 1990s*. Proceedings of a symposium entitled, Rethinking the Concept of Security Foreseen in the Charter of the United Nations: Implications for the Problems of Development and the Environment, Consejo Profesional De Ciencias Economicas De La Capital Federal, Buenos Aires, Argentina, October 14-16, 1991.

if the connectedness of things in nature had been understood and acknowledged earlier in this century, that knowledge might have shaped popular notions of rights in property so that present regulatory mandates would not seem so threatening to the propertied classes. No one has ever answered in the affirmative the question whether one has or ought to have a right to send the smoke of one's garbage fire into the home of a neighbor. With appropriate scientific confirmation of factual impacts, most state nuisance theory could have been expanded and codified to reach much more subtle extraboundary impacts upon the property of neighbors *and* upon the community than has been the case—even in modern federal environmental protection statutes such as the Clean Air Act⁸ and the Clean Water Act.⁹ Nuisance theory has been considered too clumsy a tool for modern environmental protection, but the broader police power has been expanded significantly with the articulation of appropriate factual predicates.

On the federal level, one has only to ask Mr. Filburn, of *Wickard v. Filburn*,¹⁰ whether and to what extent the Commerce Clause¹¹ of the United States Constitution provides an appropriate basis for ever-expanding and intrusive governmental control of land uses. In that case, the awesome potential of the government's regulatory control over the minutia of citizens' lives was demonstrated when Mr. Filburn was told his eleven acres of wheat threatened the welfare of the nation and was thus subject to regulation.¹²

New understandings of environmental systems can be the foundation for control arrangements that are essential to a course leading toward reconciliation of traditional institutions and notions of effective social arrangements. In fact, the common law roots of the nuisance theory¹³ and the modern expansion of the commerce clause powers as a basis for federal regulation together indicate, with a comfortable degree of certainty, where the balance point should be between extremely divergent views.

The disciplines of ecology and related sciences have finally been recognized by the Congress and state legislatures as providing the scientific basis upon which corrective policy formulation

8. 42 U.S.C. §§ 7401-7642 (1988 & Supp. 1991).

9. 33 U.S.C. §§ 1251-1387 (1988 & Supp. 1991).

10. 317 U.S. 111 (1942).

11. U.S. CONST. art. I, § 8.

12. *Wickard v. Filburn*, 317 U.S. 111, 127-28 (1942).

13. *Keystone Bituminous Coal Ass'n v. DeBenedictis*, 480 U.S. 470, 492 n.22 (1987) (citing, *inter alia*, the maxim, "*sic utere tuo ut alienum non laedas*," which translates as, "use your own property in such manner as not to injure that of another").

can rest. In fact, in various ways and degrees, the federal environmental protection statutory initiatives of the 1970s recognized this legally sufficient policy foundation and began building a phalanx of statutes and regulations that are "systems-sensitive." One can see this "systems-sensitive" refrain, however compromised or ignored in specific circumstances, as a *theme, thread, or pattern* in federal law of that era.

In the context of air pollution reduction, one can see the "pattern" of improvement over the common law "reasonable man" standard enunciated in the findings of the introductory portion of the Clean Air Act and in its provision for national primary and secondary ambient air quality standards. In its findings, Congress declared that modern life contexts of population concentration in metropolitan and urban areas, and increase in volume and complexity of air pollution from industry, motor vehicles and other sources has created threats to humans, animals, crops and property.¹⁴ Congress' approach to the threat posed to public health from deteriorated air quality was to mandate the promulgation of national primary and secondary ambient air quality standards.¹⁵ These standards are to be set in relation to the needs of particular susceptible groups and individuals, rather than in relation to some hypothetical standard of "reasonableness," as was the measure in some stages of the development of the common law of nuisance.¹⁶ Thus, the needs of human and animal respiratory health systems and the security of plants and inanimate property interests were protected.

In the context of water pollution reduction, one can see the "systems-sensitive" pattern as was obvious in the Clean Water Act. The objectives declaration section provides that "[t]he objective of this chapter is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."¹⁷ An interim goal was to achieve a level of water quality that "provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water"¹⁸ This deference to healthy aquatic systems occurs repetitiously throughout the statute. Its most inclusive statement is the typical formulation seen in the subchapter dealing with standards and enforcement.¹⁹ There, a par-

14. 42 U.S.C. § 7401(a)(2) (1988).

15. 42 U.S.C. § 7408(a)(1), (2) (1988).

16. 42 U.S.C. § 7408(f)(1)(c) (1988).

17. 33 U.S.C. § 1251(a) (1988 & Supp. 1991).

18. 33 U.S.C. § 1251(a)(2) (1988).

19. 33 U.S.C. § 1311 (1988 & Supp. 1991).

ticular permit may be granted if the discharge activity addressed "will not interfere, alone or in combination with pollutants from other sources, with the attainment or maintenance of that water quality which assures . . . *protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife*, and allows recreational activities, in and on the water" ²⁰ That formulation, or some modified version of it, is held up as an additional standard of acceptable systems protection in several provisions of the statute to make the point in these various contexts that *natural functioning of natural systems* is what is being protected. ²¹

Foresters are presently wrestling with the legitimacy of the "systems" view by amending the Code of Ethics propounded by the Society of American Foresters. ²² The Society is about to adopt language that will impose a standard requiring "stewardship of forest lands and associated resources" toward the goal of "assuring environmental integrity." ²³

This "systems" view is both scientifically rational and constitutionally sound. Foresters and wildlife managers who are willing to accept the views of Aldo Leopold cannot escape the logic of the ecos—whether they arrive at their conclusions through ethical sentimentalism or through dispassionate analysis of what is best or most natural for the "system"—whatever the scope of that analysis. In Leopold's, "The Land Ethic," his standard was that, "[a] thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." ²⁴ One can probably hypothesize some management scenarios in which it may be necessary or wise to abandon Leopold's text, but it is fundamentally a sound pivot point around which natural resource allocation policies can be shaped which will avoid the "systems"-damaging extremes described above and which will be sound constitutionally.

These observations support the conclusion that constructs have already been developed that can come to grips with the legal issues that cluster around the necessary limitations on and protections of *private* property interests. The legal questions that arise from allocation of *public goods* from federal lands are much less

20. 33 U.S.C. § 1311(h)(2) (Supp. 1991) (emphasis added).

21. 33 U.S.C. §§ 1311(m)(2), 1312(a), 1313(c)(2), (d)(1)(B), (d)(3), 1314(a)(1), (2), (5)(A), (B) (1988 & Supp. 1991).

22. Linnartz, *supra* note 5.

23. *Id.* at 19.

24. ALDO LEOPOLD, A SAND COUNTY ALMANAC 262 (1966).

serious than those that arise from environmental regulatory limitations imposed on private property.

Forest and wildlife managers consistently identify the issues of wetlands protection, endangered species preservation and biodiversity as presently posing substantive management challenges to these disciplines. In actual management contexts, it is highly artificial to attempt to separate these concerns, but they will be discussed individually here.

II. WETLANDS

The tortured history of wetland protection under section 404 of the Clean Water Act (CWA)²⁵ is well documented.²⁶ Essentially, the Corps of Engineers' implementation of that provision of the Act has progressed in the context of many law suits. The Corps of Engineers sought permitting authority under the 1972 version of 404, because of the Corps' historical role in regulating activities affecting navigable waters. However, expansion of the Corps' authority into the nation's wetlands in a scientifically legitimate way was accomplished after years of clarifying litigation and rulemaking.²⁷ Congress' assignment of an oversight role to, and involvement of, the Environmental Protection Agency (EPA) via its section 404(b)(1) guidelines created tensions early in the life of this new initiative. Presently, the Corps of Engineers and the EPA have evolved more efficient and cooperative working arrangements.

In 1989, the U.S. Army Corps of Engineers (Corps), the Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service (FWS), and the Soil Conservation Service (SCS), agreed on a uniform methodology for deciding what was a wetland and compiled a manual (1989 Manual)²⁸ so everyone would be using the same or similar standards to make those delineations.

It was not long before interest groups with the same mindset that justified the destruction of fifty-three percent of the wetlands in the lower forty-eight states²⁹ within the past two-hundred years began agitating to allow the continuation of that ruinous trend.

25. 33 U.S.C. § 1251(a) (1988).

26. See *A Guide to Federal Wetlands Protection Under Section 404 of the Clean Water Act*, ANADROMUS FISH LAW MEMO., Aug. 1988.

27. *Id.*

28. NAT'L WETLAND SCIENCE TRAINING COOP. ENVTL. CONCERN, INC., FEDERAL MANUAL FOR IDENTIFYING AND DELINEATING JURISDICTIONAL WETLANDS (1989) [hereinafter *FEDERAL MANUAL*].

29. THOMAS E. DAHL, U.S. DEP'T OF THE INTERIOR, WETLANDS LOSSES IN THE UNITED STATES 1780S TO 1980S 1 (1990).

Thus, there are now several bills before Congress ranging from virtual abolition of federal wetland protection to less comprehensive "corrections."³⁰ In addition, in an apparent effort to preempt some of these more radical Congressional retreats from wetland protection, the four agencies identified above published proposed joint regulations in the Federal Register³¹ that purport to respond to the concerns of property owners who believed section 404 restrictions to be excessively restrictive, unnecessary or unconstitutional. Essentially, the August 14th proposed regulations, through manipulations of the three wetland indicator parameters, will have the effect of removing millions of acres of land from the permitting requirements and oversight provided by section 404 of the CWA.

However narrowly or broadly one construes the proposed regulations, the central argument is whether and how much of the remaining wetland acreage in the United States will be destroyed. It can always be argued that both sides in any controversy obfuscate the issues to gain an advantage in the policy debate, but no amount of appeal to reasonableness can alter the fact that the proposed rules will remove large areas of wetlands from protection of section 404. The wisdom of the proposed rule change, as well as the continuation of use of the 1989 Manual should therefore be judged by an appreciation of the implications for preserving wetlands and for the degree of impingement on private property interests. One must also inquire whether, in this period of reexamination of the nation's resolution to protect wetlands, the original wetland indicators and parameters were lawful and scientifically valid. That is to say, as written or applied, did the 1989 Manual exclude activities in lands that were actually not wetlands and were the limitations on use of private property so severe as to amount to a "taking" contrary to constitutional norms?³² Many

30. The spectrum is defined primarily by four bills: HR 251 "Wetlands No Net Loss Act" of 1991; HR 2400 "Wetlands Stewardship Act" of 1991; HR 404 "Wetlands Protection and Regulatory Reform Act" of 1991; and HR 1330 "Comprehensive Wetlands Conservation and Management Act" of 1991.

31. 56 Fed. Reg. 40, 446 (1991) (to be codified at 40 C.F.R. ch. I, 33 C.F.R. ch. II, 7 C.F.R. ch. VI, 50 C.F.R. chs. I, IV) (proposed Aug. 14, 1991).

32. The "taking" referred to here is that degree of governmental regulation of private property through certain prohibitions on use of freshwater wetlands under section 404 of the Clean Water Act (33 U.S.C. §§ 1251-1387) that violates the Fifth Amendment to the Constitution. The Fifth Amendment prohibits, *inter alia*, the taking of private property for public use without payment of just compensation. For many years the standard for analysis of alleged improper governmental restrictions was the case of *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393 (1922). The classic statement of Justice Holmes in that case regarding excessive regulation was that when a decrease in "values incident to property . . . reaches a certain magnitude, in most if not all cases there must be an exercise of eminent domain and

believe that the basis for the complaints against the 1989 Manual is not an occasional or even systematic erroneous delineation, but rather another resurrection of the basic argument over whether *any* but standing water wetlands should be regulated.

While normal silvicultural activities were exempted in 1977³³ from the requirement of securing an individual permit, forest management activities were extensively limited in a recapture provision,³⁴ (*i.e.*, section 404(f)(2)). Thus, forest landowners and managers have much at stake in both the rewriting of the regulations as proposed on August 14, 1991 and in the various CWA reauthorization bills presently before the Congress which affect the geographic extent of the Corps' jurisdiction under section 404. Also, there has been at least one case that threatens conventional professional forest management activities in that it prohibits certain reforestation practices.³⁵

Further, when more than half of a resource is destroyed, does anyone seriously object to the "systems" approach to future proposals that pose additional permanent jeopardy to a diminishing resource such as wetlands? There seems to be a scientific consensus on what are the functions of wetlands to which value is attached.³⁶ At this late date in the development of wetland regulation policy, whether or not the present regulations are inadequate or excessive, the sweeping changes that are being proposed should be premised upon a scientifically sound understanding of the implications which those proposed changes have for the values inherent in healthy wetlands.

The following is a brief overview of some of the major changes

compensation to sustain the act" and "if regulation goes too far it will be recognized as a taking." *Id.* at 413, 415. Even though the law is developing in the context of land use restrictions, the Court engages in an ad hoc analysis of whether governmental action is constitutionally excessive on a case-by-case basis.

33. See 33 U.S.C. § 1344(f)(1) (1988).

34. 33 U.S.C. § 1344(f)(2) (1988).

35. See *Bayou Marcus Livestock and Agric. Co. v. United States Env'tl. Protection Agency*, 20 Env'tl. L. Rep. 20,445 (N.D. Fla. 1989).

36. One often hears references to wetlands as having "functions and values." It seems a more rational approach to speak of the *function* of wetlands to which *value* is attached—either by individuals or society.

In a summary of a study focused on "The Impacts of the Proposed Revisions to the Federal Wetlands Delineation Manual," the editors provided an excellent overview of why wetlands are special. These transition areas between open water and dry land are necessary "to restore and maintain the chemical, physical and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a) (1988). Those functions have extra-boundary impacts and include: Water quality enhancement; flood control; fisheries support; waterfowl habitat; biological diversity; groundwater recharge; erosion control and land building; and recreation. See ENVIRONMENTAL DEFENSE FUND, WORLD WILDLIFE FUND, *HOW WET IS A WETLAND? THE IMPACTS OF THE PROPOSED REVISIONS TO THE FEDERAL WETLANDS DELINEATION MANUAL* 1992 [hereinafter *DELINEATION MANUAL*].

in the regulations, probably favored by foresters and other land managers, and of a land management case in which the plaintiff attempted to use the section 404(f)(1)(A) silvicultural exemption.³⁷

In *Bayou Marcus Livestock Company v. EPA*,³⁸ a 1989 case, the plaintiffs purchased 872 acres of land in Escambia County, Florida that contained extensive wetlands. Selective harvesting and turpentine tapping had occurred earlier. Soon after purchase, Bayou Marcus secured a forest management plan from the State and began harvesting the timber. The Company also dug twenty-foot wide by five-foot deep drainage ditches and constructed roads. After clear-cutting the tract, the stumps and debris were raked into windrows. The plaintiff ignored cease and desist orders from the Corps of Engineers and the EPA. The EPA issued an administrative order requiring restoration of the site, which was also ignored by the plaintiff.

The plaintiff brought an action in the U.S. District Court seeking an order that its activities qualified for a section 404(f)(1)(A) exemption available to normal, ongoing silvicultural operations.

Sections 404(f)(1)(A)-(C), (E) exempt from permit requirements

- (a) normal farming, silvicultural and ranching activities [and usual practices that accompany such activities];
- (b) maintenance activities associated with existing structures such as dikes, dams, and levees, etc.;
- (c) the maintenance of existing drainage ditches; and,
- (e) construction of forest roads in accordance with best management practices;³⁹

There is a "recapture" provision, section 404(f)(2), that has caused great opposition among forestland managers.⁴⁰ It recaptures or "takes back" these exemptions for:

Any discharge of dredged or fill material . . . incidental to any activity having as its purpose bringing an area of the navigable waters into a use to which it was not previously subject, where the flow or circulation . . . may be impaired or the reach of such waters be reduced, shall be required to have a permit⁴¹

37. 33 U.S.C. § 1344(f)(1)(A) (1988).

38. 20 Env'tl. L. Rep. 20,445, 20,446 (N.D. Fla. 1989).

39. 33 U.S.C. §§ 1344(f)(1)(A)-(C), (E) (1988).

40. *Id.* § 1344(f)(2).

41. *Id.*

The *Bayou Marcus* court cited other cases that addressed similar circumstances in an agricultural context for the proposition of the propriety of construing the section 404(f)(1) exemptions narrowly.⁴²

Though the judge's reasoning in the *Bayou Marcus* case is difficult to follow, apparently he distinguished between the naturally stocked, uneven-aged stand and site conditions that existed on the date of purchase and the proposed creation of an even-aged, planted stand that required extensive modification of wetlands.⁴³ He called it "tree farming," and apparently believed the practice to be a prohibited departure from the "natural" original or "ongoing" use—and therefore was a new use.⁴⁴ His conclusion was buttressed by characterizing the "new" use as not being an "ongoing silvicultural" operation and by noting that there was no evidence of any planting, site preparation or other silvicultural activities in the past. Further, he stated that even if the silvicultural exemption were recognized, *Bayou Marcus* would be limited to "selective harvesting of natural growth."⁴⁵

The consequences to reforestation efforts, especially in the South, if this interpretation of the section 404(f)(1) exemptions becomes accepted generally, will be significant and pervasive. However, no citing cases have been found and industry advocacy groups report that there have been no other cases in which timber management practices have been so limited by section 404. Given the usual practices associated with harvesting, site preparation, and reforestation that have been refined over the last fifty years by the commercial forest industry, one should not be surprised at opposition to the *Bayou Marcus* interpretation of the section 404(f)(1) exemption.

Regarding the 1989 Manual, any discussion of the changes

42. *Bayou Marcus*, 20 Env'tl. L. Rep. at 20,446 (citing *United States v. Huebner*, 752 F.2d 1235, 1240-41 (7th Cir. 1985) (exemptions for normal farming activities pursuant to § 1344(f)(1) are to be construed narrowly and are not applicable to permit a "use" of wetlands to which they had not been previously subject); *United States v. Cumberland Farms of Conn., Inc.*, 647 F. Supp. 1166 (D. Mass. 1986), *aff'd*, 826 F.2d 1151 (1st Cir. 1987) (of all the activities exempted by § 1344(f)(1), only "farming, silviculture, and ranching" must be shown to be "normal and continuing" to be subject to the exemption); *United States v. Larkins*, 657 F. Supp. 76 (W.D. Ky. 1987) (it is not a "normal silviculture activity" to cut timber for the purpose of clearing land); *United States v. Akers*, 785 F.2d 814 (9th Cir. 1986) ("to the extent it may level . . . land so as to fill channels or convert wetlands to uplands," land clearing activities are a discharge of dredged or fill material in contravention of § 1344)).

43. *Id.*

44. *Id.*

45. *Id.*

proposed in the August 14, 1992 Federal Register⁴⁶ should keep in context the likelihood that today's analyses will probably be obsolete within ninety days to one year. The August 14 proposed regulations managed to anger everyone about something.

The proposed regulations require inundation for fifteen consecutive days or saturation to the surface for twenty-one consecutive days during the growing season.⁴⁷ This hydrologic standard replaces a one-week period in the 1989 Manual.⁴⁸

"Soil saturation" means that one can squeeze water out of a handful of surface soil.⁴⁹ This highly dubious field standard replaces the old test of finding a water table within eighteen inches of the soil surface.⁵⁰

The proposed rule would shorten and localize the growing season by defining it as the period between three weeks before the local average frost-free date in the spring until three weeks after the last killing frost in the fall.⁵¹ The old definition is determined by the initiation and cessation of biological activity in spring and fall. The effect is to escape the wet seasons in spring and fall and thus to decrease the area previously considered to be wetland.

To be considered a wetland, the hydrological conditions mentioned above must be accompanied by "hydric soils" which are soils that clearly show anaerobic conditions, which are caused by extensive flooding and depletion of oxygen.⁵²

The third major change is a narrowing or decrease in the types or species of plants that are presumed to indicate a wetland.⁵³ The proposed rules continue to require the presence of hydrophytic or water-adapted plants.⁵⁴ If such otherwise qualifying vegetation has been removed, "like soils" nearby may furnish this required indicator. Further, all three major wetland criteria must be present to qualify a site as a wetland,⁵⁵ and the burden to prove the existence of these criteria is on the government.⁵⁶

Lobbyists on both sides of this issue make divergent claims

46. 56 Fed. Reg. 40,446 (1991) (to be codified at 40 C.F.R. ch. I (EPA); 33 C.F.R. ch. II (Corps); 7 C.F.R. ch. VI (SCS); and, 50 C.F.R. chs. I and IV (FWS)). The regulation is jointly published by the agencies indicated.

47. 56 Fed. Reg. 40,448, 40,452 (1991).

48. FEDERAL MANUAL, *supra* note 28, at 12-13.

49. 56 Fed. Reg. 40,452 (1991).

50. FEDERAL MANUAL, *supra* note 28, at 12.

51. 56 Fed. Reg. 40,448 (1991).

52. *Id.* at 40,455.

53. *Id.* at 40,454.

54. *Id.*

55. *Id.* at 40,452.

56. DELINEATION MANUAL, *supra* note 36.

about these and other impacts that will result from the proposed rules. Conservation organizations claim that millions of acres of lands which would be considered wet under the 1989 Manual will be freed from control under the proposed rules.⁵⁷

Many of the drier-end or "higher" wetlands can be converted to or used for establishment of wood product growth. Obviously, the forest industry will benefit from the proposed rules. Even so, serious negotiations are in process over how extensively convertible wetlands will be "deregulated." However, contestants with highly variable points of view are participating in growing numbers in the debates swirling about section 404, and it is likely that the controversy over both *identifying* and *protecting* wetlands will continue for years. Section 404 of the CWA is a full employment statute for lawyers and various other consultants!

There are many other changes in the proposed rules that would require a week-long conference to explore adequately. However, this fight over policy is far from being over. Wetlands protection policies, as executed under the 1989 Manual pose a threat to the management autonomy of professional foresters. The proposed rules reflect the political successes of those who desire less intrusion by environmental interests into forest management decisions. The resulting controversies will continue until a national consensus on wetland policy matures to the point that a regulatory scheme can survive for more than a few years between major amendments, rewriting, and judicial challenges.

III. ENDANGERED SPECIES

The impacts and potential impacts on forest management decisions arising from the federal Endangered Species Act (ESA)⁵⁸ are typified by the "endangered" status accorded to the Red-Cockaded Woodpecker and the Northern Spotted Owl. The woodpecker is of most concern in southern pine forests, and the owl is at the center of harvest controversies in the Pacific Northwest.

Many professionals see an expressed interest in protecting such creatures and filing of lawsuits as surrogacy ploys to attain land use preferences which are inconsistent with the plans of professional foresters or private landowners.⁵⁹ One might question

57. *Id.* at x.

58. 16 U.S.C. §§ 1531-1544 (1982).

59. Gene W. Wood, *Owl Conservation Strategy Flawed*, J. FORESTRY, Feb. 1991, at 39.

the legal or practical relevance of inquiring into the motives of citizen enforcers of the ESA, but land managers are greatly offended by what they see as a misuse of the statute.

The ESA has had a major impact on modern forestry practice because the habitat protections that must be instituted upon the listing of an endangered species greatly or almost entirely foreclose sales and harvesting options in large segments of public lands *and even some private lands*.⁶⁰ Also, what always looms in the background is the threat that enforcement of the ESA against private activities on private property may run afoul of the Constitution's prohibition of "taking" private property without just compensation.⁶¹

The potential for what some see as the mischief that can be wrought through the ESA is illustrated in the context of two species that have caused high visibility controversies. The Red-Cockaded Woodpecker is an endangered species with significant management implications in the South. In 1989, the FWS published an interpretation of its policy on the definition of the word "harm" as it applies to that species. "Harm" is included in the list of terms in the statute to define "take," an act committed against the well-being of a listed species, as follows: "To harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."⁶²

The term "harm" is further defined in regulations as follows: "An act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering."⁶³

The FWS's position is that, to fall within these prohibitions, habitat modification must be joined by evidence that such modification results in a "taking" of individuals or groups of the pro-

41; Interagency Scientific Committee, *An Owl Conservation Strategy That Works*, J. FORESTRY, Aug. 1991, at 23-26.

60. STEVEN P. QUARLES ET AL., *THE APPLICATION OF THE ENDANGERED SPECIES ACT TO PRIVATE LANDS* 2-3, 21-27 (1990).

61. See REPORT OF THE NFPA/AFC AD-HOC TASK FORCE (1989). The report discusses applications of the ESA to private lands. Citing statutory language, legislative history, administrative interpretations, and judicial decisions, the authors concluded § 9 of the ESA prohibitions against "taking" an endangered species *do* apply to private activities on private lands. *Id.* at 10-11. That same report indicated that there were no reported cases in which the government or a citizen had successfully sought an injunction against activities constituting a "taking" on private lands. *Id.* at 4.

62. 16 U.S.C. § 1532 (19) (1988).

63. 50 C.F.R. § 17.3 (1988).

tected species.⁶⁴ With regard to the Red-Cockaded Woodpecker, this could mean that destruction of cavity trees that are in use by the species at the time of destruction constitutes a violation. Also, pine trees of an age appropriate to the life habit needs of the woodpecker must be preserved, (i.e., *not harvested*, including replacement trees to compensate for natural mortality!).⁶⁵

The seriousness with which the government views violations of the ESA is revealed by recent indictments obtained against three federal civilian forestry employees at Fort Benning in Columbus, Georgia.⁶⁶ The three were arraigned on January 31, 1992, after having been indicted on charges of conspiracy to violate the ESA by concealing the presence of the birds on government property they were managing. The men plead not guilty to charges which stemmed from investigations by the Justice Department and the Fish and Wildlife Service. The government charged that the result of the alleged conspiracy was the destruction of critical habitat during a commercial logging operation. The men face fines of up to \$640 thousand and sentences of up to thirty-six years in jail.

While the employees were governmental and the land was public, it is evident that private actions on private lands are also subject to the protections of the ESA. As of yet, neither actions brought by the federal government nor by private citizens against activities on private property that allegedly violate the ESA have been reported. However, there have been cases brought against persons destroying woodpecker cavity trees on private lands that were settled with payment of significant money penalties without ever having been tried in court.⁶⁷ Settlements of this sort usually happen when the defendant's attorney believes the client is vulnerable to a conviction or judgement.

The other highly visible controversy, with tremendous impact on management of public lands in the Northwest area of the nation, arose upon the listing of the Northern Spotted Owl as "threatened" under the ESA. However, the implications of the listing and official management responses to it are not limited to the old growth forests of that area.

The "temperature" of this controversy vastly exceeds that of

64. QUARLES, *supra* note 60, at 18 (1990) (citing REPORT OF THE NFPA/AFC AD-HOC TASK FORCE 4 (1989)).

65. *Id.*

66. *Three Face Jail Over RCW*, NEWSLETTER (Southern Forest Prod. Ass'n, Kenner, La), Feb. 10, 1992, at 1.

67. QUARLES, *supra* note 60, at 4.

the discovery and listing of the Snail Darter in Tennessee and its aftermath in the courts. In the owl's home range, the economies of the region are closely related to timber products, so reductions in harvesting will have immediate impacts on the economic welfare of the region.⁶⁸ Reductions of production on national forests and lands of the Bureau of Land Management would be in the range of 2.4 billion board feet below present levels—which is forty-eight percent of the current cutting plans adopted before the owl's welfare became a controlling factor.⁶⁹ These reductions would reduce employment projections for the next ten years by forty-one percent.⁷⁰ The currently proposed plans to protect the spotted owl will reduce annual timber revenues from public lands by 229 million dollars from existing levels by the year 2000.⁷¹

It is a vast understatement to say that the listing of this species under the ESA portends radical changes in the lives of many citizens and businesses in the affected areas. On a superficial level, the economic welfare of families is pitted against the survival of a rather unimpressive little bird.

Voices have been raised against the propriety of using the owl's welfare as a "surrogate" ploy to accomplish ends not openly divulged.⁷² Surrogacy is usually understood as standing in or being put in the place of another.⁷³ A "ploy" is a contrivance to accomplish an end indirectly.⁷⁴ Thus, it is charged that owl welfare advocates are not genuinely or primarily concerned about the owl, but rather have the primary motivation of preserving the forests that comprise their critical habitat.

As mentioned earlier, one's motivations may be politically relevant for opponents of the national policy expressed in the ESA, but there is no provision in that statute that conditions its application on a "pure ornithological heart." Use of the terms "surrogacy" and "ploy" are merely examples of philosophical hyperbole that reveal the users' dissatisfaction with an uneasy national consensus to finally draw a line against cutting the last redwood, killing the last bison, or obliterating the last four or five percent of *any* resource that stands in the way of the many modern perversions that are cloaked in the definitions of "progress."

68. Jonathon Ruben et al., *A Benefit-Cost Analysis of the Northern Spotted Owl*, J. FORESTRY, Dec. 1991 at 25-30.

69. *Id.* at 25.

70. *Id.*

71. *Id.* at 26.

72. Wood, *supra* note 59, at 41.

73. WEBSTER'S NEW COLLEGIATE DICTIONARY, 1173 (1974 ed.).

74. *Id.* at 884.

IV. BIODIVERSITY

The biodiversity issue is potentially more disruptive to traditional forestry management practices than either of the first two issues mentioned. The idea of conserving biological diversity is rapidly becoming a major issue in the formulation of plans to manage public lands.⁷⁵ Increasingly, one may find in the concept a structure within which all other natural resource issues can be addressed.

The Forest Service operates its planning activities under a mandate to consider biological diversity. It is required to:

[P]rovide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives, and within the multiple-use objectives of a land management plan . . . [must] provide, where appropriate, to the degree practicable, for steps to be taken to preserve the diversity of tree species similar to that existing in the region controlled by the plan.⁷⁶

Definitions of the phrase "biodiversity" are themselves the subject of much controversy, but one definition widely cited is: "'Biological diversity refers to the variety and variability among living organisms and the ecological complexes in which they occur.'"⁷⁷ This idea is the seed from which comprehensive public land use reforms will grow. It will inevitably expand to include private land management practices. For example, application of the "systems-sensitive" nature of the concept is already accepted in some states to affect agricultural practices on private lands that produce excessive soil erosion. Since these land-use-influencing regulations pass constitutional tests,⁷⁸ it is not too difficult to predict that similarly justified impingements on other private land use

75. Probst & Crow, *supra* note 4, at 12-17.

76. 16 U.S.C. § 1604(g)(3)(B) (1988).

77. Probst & Crow, *supra* note 4, at 13 (quoting OFF. OF TECH. ASSESSMENT, TECHNOLOGIES TO MAINTAIN BIOLOGICAL ASSESSMENT 5 (1987)).

78. Soil and its productive capacity is as basic to national survival and well-being as air and water. However, unlike air and water, citizens can own soil to such a near-absolute degree that the rights incident to such ownership have explicit protection in the Constitution. Thus, regulatory impingements on its use must be carefully crafted to meet constitutional limitations on permissible government intrusions on private property.

Soil erosion has become such a threatening problem in Iowa that the state has enacted legislation that makes soil erosion control mandatory. In Iowa, where five tons of topsoil are lost to erosion for every ton of corn produced, landowners have an affirmative duty to employ construction and cultivation practices that decrease erosional losses to acceptable limits. In the case of Woodbury County Soil Conservation District v. Ortner, 279 N.W.2d 276 (Iowa 1979), a state district court upheld application of the statute to a farmer's land

decisions will likely follow as the systems-protection approach matures.

At present, the debate on the issue centers on management of public lands—mainly forest lands—and it has been the subject of proposed national legislation. The *National Biological Diversity Conservation and Environmental Research* bill recently was reported out of committee, but its fate is not certain.⁷⁹ The bill would require the Council on Environmental Quality (CEQ) to prepare a strategy and provide guidance to federal agencies in planning compliance. Eventually, it would lead to mandates for ecosystems protections that are much broader than those in statutes like the ESA's critical habitat designations.

"Preserving biological diversity is a complex problem that encompasses a variety of scientific, social, and economic considerations."⁸⁰ There are no "five easy steps" to achieve and maintain a condition of biological diversity, but the following are some condensed management recommendations that will indicate what foresters and others are thinking of when they use the phrase "biodiversity":

1. Think regionally;
2. consider extraboundary impacts;
3. plan and manage over large areas rather than on a stand-by-stand basis;
4. consider cumulative impacts of individual projects on regional populations and resources;
5. emphasize *multispecies* and *ecosystem* management;
6. provide habitat sufficient to maintain species of concern;
7. alter cutting patterns and harvest schedules to reduce forest fragmentation;
8. include the full spectrum of ecological assemblages within the landscape, from early successional to old growth communities;

that was being allowed to erode at a rate in excess of the minimal acceptable limits under the statute. *Id.* at 279.

While these and similar rudimentary efforts to protect the productive capacity of the nation's soil resources may seem puny in comparison to the seriousness and pervasive impact of the problems posed by loss of productivity, it is inevitable that the nation will face the problem as it did those of other aspects of natural resources in the early 1970s.

Linda A. Malone, *Environmental Regulation of Land Use*, § 5.08, at 5-45 (the Clark Boardman Environmental Law Series, 1990).

79. H.R. REP. NO. 102-259, 102d Cong., 1st Sess., pt. 1, at 7 (1991).

80. Probst & Crow, *supra* note 4, at 16.

9. conduct ecological surveys to gain knowledge of the *what, where, and how much* of the resource; and
10. monitor problem species and ecosystems.⁸¹

Compliance with or adoption of these recommendations portends significant increases in government intrusion into professional management of public lands and, inevitably, into certain private land management decisions.

V. CONCLUSION

Whatever shall be the direction of systems-based national and state government environmental policy in the next twenty to thirty years, the greatest challenge will be to accomplish a rational, scientifically valid and socially acceptable accommodation between the healthy functioning of the "commons," which is our slice of the biosphere we all depend on, and the "magic" of private property and wisely operating free markets.

At a point somewhere between the original abundance of a resource and its entire destruction, it is a rational and defensible idea to stop and consider conservation or use practices that assure resource survival or continuation. Wetland resources, in all their variability, are a classic example of this need. Resource protection laws of the 1970s followed an administrative pattern whereby the federal government preempted state level primary jurisdiction. Federal protective norms were enacted, and states were allowed to reassume executory powers in their respective jurisdictions only after demonstrating to the federal authorities that national standards and policies would be enforced. Given human nature and the design of the U.S. federal system of division of government, this technique will probably be the most effective approach to wetland preservation in the United States, but it will require the wisdom of a thousand Solomons to prevent the regulators from perverting their authority to the detriment of business enterprises and private property prerogatives.

For similar reasons, protections for endangered species must continue. It is destructive land use patterns and practices that bring a species to the edge of its existence, and much more than the loss of an unknown and unappreciated life-form is lost when preservation efforts come too late. While Fifth Amendment protections of private property must be preserved, more restrictive measures may be applied to public lands. In a sense, these public

81. *Id.* at 16-17.

resources may serve as reservoirs of threatened creatures and values for replenishment of the land when future generations awaken to their plight.

Future reforms may well come in the context of growing concern for preservation of biodiversity. The time has long passed for that ultimate broader perspective to be the guiding norm. The history of the modern focus on environmental protection will record lasting successes only to the extent that the genius of private property and free enterprise can be let loose in an environment that preserves and includes the larger manifestations of life.