ARTICLES

AMOCO PRODUCTION CO. v. VILLAGE OF
GAMBELL AND MOTOR VEHICLE
MANUFACTURERS ASSOCIATION v. STATE
FARM MUTUAL AUTOMOBILE INSURANCE
CO.: AUTHORITY WARRANTING
RECONSIDERATION OF THE SUBSTANTIVE
GOALS OF THE NATIONAL
ENVIRONMENTAL POLICY ACT

Don J. Frost, Jr.*

Congress enacted the National Environmental Policy Act ("NEPA") to protect and enhance the environment and in doing so based the national environmental policy contained in section 101 of NEPA on the precept that man must establish a harmonious relationship with nature. In interpreting NEPA to be "essentially procedural," however, the United States Supreme Court and the United States Court of Appeals for the Ninth Circuit have precluded the fulfillment of NEPA's substantive goals. This article will demonstrate that the Court's method of statutory construction applied in Amoco Production Co. and the scope of review employed in State Farm suggest that the Court's and the Ninth Circuit's interpretation and application of NEPA are no longer sound. Hence, NEPA's environmentally-based substantive goals should be elevated above its procedural mandate. Consequently, environmental impact statements ("EIS's") and agency actions pursuant to

Copyright © 1988 by Alaska Law Review

The author would like to thank Professor Christopher Schroeder for his helpful comments and especially to thank Carolyn and B.G.

^{*} J.D., 1988, Duke University School of Law; M.A., 1988, Duke University School of Forestry & Environmental Studies (Resource Economics & Policy); B.A. cum laude, 1983, Carleton College (Geology). The author has accepted a position as an associate with the environmental section of Skadden, Arps, Slate, Meagher & Flom, in the firm's Washington, D.C., office.

completed EIS's should be found adequate only if they comply with NEPA's substantive goals. That is, only those "major Federal actions" that protect and enhance the environment should be permitted to proceed.

I. Introduction

Alaska is a land of incomparable grandeur. No other state and few countries can boast as Alaska can of its wilderness, wildlife, natural resources, and scenic beauty. Alaska's physical and biological attributes, however, are fragile, susceptible to exploitation and degradation. Man must be cognizant of his actions, carefully considering the impact of his endeavors before undertaking any project or activity that will alter nature's scheme. Responsible development in Alaska, however, is complicated by the array of private, state, Native, and federal ownership interests. Following the enactment of the Alaska National Interest Lands Conservation Act ("ANILCA"), the federal government owned 225.2 million of Alaska's 375 million acres. the state 104.5 million acres, the Natives 44 million acres, and private parties the remaining 1.3 million acres.² Owning approximately sixty percent of the acreage, the federal government is the major player in Alaska land ownership; therefore, its activities play an important role in the preservation and development of Alaska's natural resources.

Numerous federal statutes³ control both federal and nonfederal activities affecting Alaska's natural resources and environment. The majority of these statutes control the development of particular resources or the pollution of certain mediums. In contrast, the National Environmental Policy Act of 1969 ("NEPA")⁴ is a general statute,

^{1.} Pub. L. No. 96-487, 94 Stat. 2371 (1980) (codified as amended in scattered sections of 16 U.S.C., 43 U.S.C. & 48 U.S.C.).

^{2.} See P. Wayburn, Adventuring in Alaska 74 (1982). The state and Native allotments do not represent actual acreage under ownership, but rather the total ownership to which these groups are entitled. See Alaska Native Claims Settlement Act ("ANCSA") § 12, 43 U.S.C. § 1611 (1982 & Supp. III 1985) (Native allotment); Alaska Statehood Act, Pub. L. No. 85-508, §§ 5 & 6, 72 Stat. 339, 340 (1958) (state allotment).

^{3.} See, e.g., ANILCA, Pub. L. No. 96-487, 94 Stat. 2371 (1980) (codified as amended in scattered sections of 16 U.S.C., 43 U.S.C. & 48 U.S.C.); Marine Mammal Protection Act, 16 U.S.C. §§ 1361-1407 (1982 & Supp. III 1985); Endangered Species Act, 16 U.S.C. §§ 1531-1543 (1982 & Supp. III 1985); Mineral Leasing Act of 1920, 30 U.S.C. §§ 181-263 (1982 & Supp. III 1985); Federal Water Pollution Control Act, 33 U.S.C. §§ 1251-1376 (1982 & Supp. III 1985); Clean Air Act, 42 U.S.C. §§ 7401-7642 (1982 & Supp. III 1985); Outer Continental Shelf Lands Act, 43 U.S.C. §§ 1331-1356 (1982 & Supp. III 1985); ANCSA, 43 U.S.C. §§ 1601-1628 (1982 & Supp. III 1985).

^{4. 42} U.S.C. §§ 4321-4370c (1982).

establishing a national environmental policy for the nation. The environmental policy — NEPA's substance — is founded on Congress' belief that the "Federal Government, in cooperation with state and local governments, and other concerned public and private organizations [must]... use all practicable means and measures... to create and maintain conditions under which man and nature can exist in productive harmony." NEPA imposes nondiscretionary procedural requirements⁶ on any federal agency engaging in an activity that constitutes a "major Federal action[] significantly affecting the quality of the human environment."

Few Alaskans are untouched by the requirements of NEPA. Section 102(2)(C) requires an agency to complete an Environmental Impact Statement ("EIS") before engaging in an activity involving a "major Federal action[]." In Alaska, 264 final EIS's were completed between 1971 and 1987.9 These EIS's were completed for a variety of "major Federal actions," including, for example: forty-seven special purpose federal lands¹⁰ designations and management plans; forty-four road and highway projects; twenty-six harbor projects; twenty-six oil, gas, and mineral leasing and development activities; eighteen national forest timber sales; eleven fishery projects; ten airport projects; six military installations and nuclear weapons tests; six power plant

^{5. 42} U.S.C. § 4331(a) (1982).

^{6.} See NEPA section 102(2)(C), 42 U.S.C. § 4332(2)(C) (1982), discussed infra text accompanying notes 62-69; see also Andrus v. Sierra Club, 442 U.S. 347, 350-51 (1979) ("NEPA contains "'action forcing' procedures" that "require[]" "'detailed statement'"); Kleppe v. Sierra Club, 427 U.S. 390, 409 (1976) (section 102(2)(C) is "'action forcing'"); Aberdeen & Rockfish R.R. v. Students Challenging Regulatory Agency Procedures (SCRAP), 422 U.S. 289, 319 (1975) ("NEPA does create a discrete procedural obligation"); Thomas v. Peterson, 753 F.2d 754, 758 (9th Cir. 1985) ("NEPA requires an [EIS] for 'major Federal actions . . .'"); Save Our Ecosystems v. Clark, 747 F.2d 1240, 1244 (9th Cir. 1984) ("NEPA requires an [EIS] for 'major federal [sic] actions . . .'"); Lathan v. Volpe, 455 F.2d 1111, 1120 (9th Cir. 1971) ("federal agencies which undertake activities which may affect the environment must prepare and submit [an EIS]"); Calvert Cliffs' Coordinating Comm., Inc. v. United States Atomic Energy Comm'n, 449 F.2d 1109, 1112 (D.C. Cir. 1971) ("[NEPA's procedural] provisions are not highly flexible. . . . [T]hey establish a strict standard of compliance.").

^{7. 42} U.S.C. § 4332(2)(C) (1982).

^{3.} *Id.*

^{9.} Environmental Protection Agency, Environmental Impact Statement (1971-86) Title Index for Alaska (1987); 52 Fed. Reg. 1,945, 12,980, 21,629, 37,535, 41,328, 43,129 & 45,253 (1987).

^{10.} These lands include: (1) national parks; (2) national forests; (3) national wilderness areas; (4) national wildlife refuges; (5) national monuments; (6) national wild and scenic river systems; (7) national recreation areas; (8) national wildlands; and (9) national ranges.

projects; five water projects; four sewage treatment and solid waste disposal projects; and four oil and gas transportation systems.¹¹

Although NEPA establishes "substantive goals for the Nation," ¹² the United States Supreme Court and the United States Court of Appeals for the Ninth Circuit have interpreted the Act's mandate to be "essentially procedural." ¹³ Consequently, the courts generally review the adequacy of EIS's with extreme deference. ¹⁴ As established by the Supreme Court, when reviewing the sufficiency of an EIS:

Neither the statute nor its legislative history contemplates that a court should substitute its judgment for that of an agency as to the environmental consequences of its actions. The only role for a court

NEPA's substantive goals, as defined in section 101 of the Act, 42 U.S.C. § 4331 (1982), are discussed *infra* in Section IV.

^{11.} ENVIRONMENTAL PROTECTION AGENCY, ENVIRONMENTAL IMPACT STATEMENT TITLE (1971-86) INDEX FOR ALASKA (1987); 52 Fed. Reg. 1,945, 12,980, 21,629, 37,535, 41,328, 43,129 & 45,253 (1987).

^{12.} See, e.g., Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 558 (1978), quoted in Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227 (1980); accord Kleppe v. Sierra Club, 427 U.S. 390, 409 (1976) ("NEPA announced a national policy of environmental protection"); United States v. Students Challenging Regulatory Agency Procedures (SCRAP), 412 U.S. 669, 693 (1973) ("NEPA, one of the . . . major federal efforts at reversing the deterioration of the country's environment, declares 'that it is the continuing policy of the Federal Government . . . to use all practicable means and measures . . . in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.' 42 U.S.C. § 4331 [(1982)]").

^{13.} See, e.g., Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 558 (1978), quoted in Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227 (1980); accord City of Davis v. Coleman, 521 F.2d 661, 670 (9th Cir. 1975); Alpine Lakes Protection Soc'y v. Schlapfer, 518 F.2d 1089, 1090 (9th Cir. 1975); see also Karp, The NEPA Regulations, 19 Am. Bus. L.J. 295, 315-16 (1981) ("when the courts review the substantive decision, they speak vaguely about applying Section 101(b) criteria, but show little vigor in measuring the agency decision by those standards. In short, agencies that have played the procedural game properly — prepared adequate EIS's — have had little reason to fear that their substantive decisions would be overturned." (footnotes omitted)); Strohbehn, NEPA's Impact on Federal Decisionmaking: Examples of Noncompliance and Suggestions for Change, 4 Ecology L.Q. 93, 95 (1974) (agencies view NEPA as essentially procedural).

^{14.} Professors Richard Goldsmith and William Banks observed that one of the consequences of the Supreme Court finding NEPA to be "essentially procedural" is that the lower federal courts "are enforcing NEPA with diminished rigor. . . . [U]nder the influence of Strycker's Bay, some of the lower courts now seem to be reviewing agency action under NEPA far less closely than they review other types of agency action. This extreme deference to the federal bureaucracy invites the mockery of NEPA" Goldsmith & Banks, Environmental Values: Institutional Responsibility and the Supreme Court, 7 HARV. ENVTL. L. REV. 1, 5-6 (1983).

is to insure that the agency has taken a "hard look" at environmental consequences; it cannot "interject itself within the area of discretion of the executive as to the choice of the action to be taken." ¹⁵

In other words, as the Court explained in *Baltimore Gas and Electric Co. v. Natural Resources Defense Council, Inc.*, ¹⁶ "[t]he role of the courts is simply to ensure that the agency has adequately considered and disclosed the environmental impact of its actions and that its decision is not arbitrary or capricious." Furthermore, the Court held that in completing the "hard look" the agency need not "elevate environmental concerns over other appropriate considerations." ¹⁸

The Ninth Circuit invokes one of two review standards depending upon the nature of the claim. First, when considering whether an EIS complies with NEPA's requirements, the Ninth Circuit applies the "rule of reason." Under this standard, which represents an application of section 706(2)(D) of the Administrative Procedure Act ("APA"), 20 the reviewing court is limited to determining whether:

15. Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976); accord Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 97-98 (1983); Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227-28 (1980); Village of False Pass v. Clark, 733 F.2d 605, 613 (9th Cir. 1984); California v. Block, 690 F.2d 753, 761 (9th Cir. 1982).

In analyzing the Court's decision in Strycker's Bay, in which the Court employed language similar to that quoted and found NEPA to be "essentially procedural," 444 U.S. at 227-28, Professors Richard Goldsmith and William Banks conclude that the Court held "that a federal court may not set aside agency action as 'arbitrary and capricious' on the theory that the agency gave insufficient weight to the substantive goals enumerated in NEPA." Goldsmith & Banks, supra note 14, at 11. The Court's decision in Baltimore Gas seems to further support this observation. See infra notes 245-68 and accompanying text.

- 16. 462 U.S. 87 (1983).
- 17. Id. at 97-98 (1983) (citing Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 415-17 (1971)).
- 18. Id. at 97 (citation omitted); accord Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227, 228 n.2 (1980).
- 19. See, e.g., Enos v. Marsh, 769 F.2d 1363, 1372 (9th Cir. 1985); California v. Block, 690 F.2d 753, 761 (9th Cir. 1982); accord Village of False Pass v. Watt, 565 F. Supp. 1123, 1143-44 (D. Alaska 1983), aff'd, 733 F.2d 605, 613 (9th Cir. 1984).
 - 20. 5 U.S.C. § 706(2)(D) (1982). Section (2)(D) of the APA provides:

The reviewing court shall —

- (2) hold unlawful and set aside agency action, findings, and conclusions found to be
 - (D) without observance of procedure required by law;

[T]he Final [EIS] contain[s] "a reasonably thorough discussion of the significant aspects of the probable environmental consequences," and . . . [whether] its "form, content and preparation foster both informed decision-making and informed public participation." Once satisfied that the Secretary [of the Interior] has taken this procedural and substantive "hard look" at environmental consequences in the Final Statement, our review is at an end.²¹

As explained by the court in *Lathan v. Brinegar*, ²² the Ninth Circuit adopted this standard of review "because NEPA is essentially a procedural statute."²³

The arbitrary and capricious standard²⁴ is the second type of review used in the Ninth Circuit. The courts apply this standard when determining the lawfulness of an adminstrator's decision that is made pursuant to the considerations and conclusions contained in an EIS.²⁵ The Ninth Circuit views the arbitrary and capricious standard as providing a higher degree of deference to an agency's action than the level of deference owed under the "rule of reason."²⁶ Despite this approach, the "rule of reason" and the arbitrary and capricious standard applied by the Supreme Court are indistinguishable. Both standards require the reviewing court to determine whether the administrator has taken a "hard look" at the environmental consequences of the proposed decision.²⁷ Therefore, the scope of review under the two standards employed in the Ninth Circuit should be considered analogous.

The reviewing court shall —

^{21.} Village of False Pass v. Clark, 733 F.2d 605, 613 (9th Cir. 1984) (citations omitted); accord Enos v. Marsh, 769 F.2d 1363, 1372 (9th Cir. 1985); California v. Block, 690 F.2d 753, 761 (9th Cir. 1982).

^{22. 506} F.2d 677 (9th Cir. 1974) (en banc).

^{23.} Id., quoted in Village of False Pass v. Watt, 565 F. Supp. 1123, 1143 (D. Alaska 1983), aff'd, 733 F.2d 605 (9th Cir. 1984).

^{24.} The arbitrary and capricious standard of review is included in section 706(2)(A) of the APA, which provides:

⁽²⁾ hold unlawful and set aside agency action, findings, and conclusions found to be -

⁽A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

⁵ U.S.C. § 706(2)(A) (1982).

^{25.} See, e.g., Lathan v. Brinegar, 506 F.2d 677, 692 (9th Cir. 1974) (en banc); Village of False Pass v. Watt, 565 F. Supp. 1123, 1143 (D. Alaska 1983), aff'd, 733 F.2d 605 (9th Cir. 1984).

^{26.} See, e.g., Lathan, 506 F.2d at 692-93, quoted in Village of False Pass, 565 F. Supp. at 1142-43.

^{27.} Compare Village of False Pass v. Clark, 733 F.2d 605, 613 (9th Cir. 1984) with Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 97-98 (1983).

Nevertheless, because of the high level of deference to an administrative agency historically owed by a reviewing court under these two standards.²⁸ and because its review is limited to an agency's compliance with NEPA's procedural mandate, the adequacy of an EIS or the integrity of an adminstrator's decision to proceed with a project pursuant to a completed EIS is rarely challenged. Although 264 final EIS's have been completed in Alaska, only five final EIS's and one draft EIS have been challenged on the grounds that they were inadequate, and/ or administrative action pursuant to the completed EIS was arbitrary and capricious.²⁹ No challenges to administrative action have been based on a completed EIS. This sparse litigation record most likely would differ if parties could challenge the adequacy of either an EIS or an administrator's action pursuant to an EIS on the grounds that they failed to fulfill NEPA's substantive mandate. The deference owed an agency would be significantly reduced: a reviewing court would not only have to determine that the agency had complied with NEPA's procedural mandate, but also would be required to find that the EIS or the administrator's decision fulfilled NEPA's broad substantive goals, which are contained in section 101.30

In addition to encouraging litigation, such a change in the scope of judicial review would alter significantly agency decisionmaking under NEPA. A close analysis of section 101 and its legislative history reveals that the Court's determination that an agency need not

^{28.} See infra notes 42-46 and accompanying text.

^{29.} Alaska v. Andrus, 580 F.2d 465, 485-86 (D.C. Cir.) (final EIS prepared by the Bureau of Land Management for the sale of offshore oil and gas leases in the Gulf of Alaska found inadequate for failure to consider certain alternatives), vacated in part sub nom. Western Oil & Gas Assoc. v. Alaska, 439 U.S. 922 (1978); Wilderness Soc'y v. Morton, 479 F.2d 842 (D.C. Cir.) (en banc) (final EIS prepared by the Department of the Interior for construction of the trans-Alaska pipeline challenged for failure adequately to consider alternatives, and court found NEPA issues unripe for adjudication), cert. denied, 411 U.S. 917 (1973); International Fund for Animal Welfare v. Baldridge, 594 F. Supp. 129, 132-33 (D.C. Cir. 1984) (draft EIS prepared by the Secretary of Commerce for killing of 22,000 subadult male seals found adequate); Village of False Pass v. Watt, 565 F. Supp. 1123, 1165 (D. Alaska 1983) (final EIS prepared by the Department of the Interior for an offshore oil and gas lease in the St. George Basin of the Bering Sea found inadequate for failure to consider the dangers to whales presented by preliminary seismic activity), aff'd, 733 F.2d 605 (9th Cir. 1984); North Slope Borough v. Andrus, 486 F. Supp. 332, 347-49 (D. D.C.) (final EIS prepared by the Department of the Interior for an offshore oil and gas lease sale in the Beaufort Sea found wanting for failure to consider adequately cumulative impacts and alternatives), aff'd in part and rev'd in part, 642 F.2d 589 (D.C. Cir. 1980); Aleut League v. Atomic Energy Comm'n, 337 F. Supp. 534, 542-46 (D. Alaska 1971) (final EIS prepared by Atomic Energy Commission for detonation of nuclear bomb (code named CANNIKIN) on Amchitka Island found adequate under NEPA).

^{30. 42} U.S.C. § 4331 (1982), discussed infra Section IV.

"elevate environmental concerns over other appropriate considerations" undermines the national environmental policy espoused in section 101.³² NEPA's substantive goals, which are premised on the need to protect the environment, ³³ require environmental values to be given priority over economic and, in some instances, social factors.

In light of the scope of review under the arbitrary and capricious standard adopted by the Supreme Court in Motor Vehicle Manufacturers Association v. State Farm Mutual Automobile Insurance Co., 34 and its recent decision in Amoco Production Co. v. Village of Gambell, 35 these observations are not merely academic. This article first reviews these judicial developments and then discusses how NEPA's requirements would differ if either an EIS or an adminstrator's action pursuant to an EIS were adequate only if, in addition to fulfilling NEPA's procedural requirements, they met the Act's substantive mandates.

Specifically, Section II of this article discusses the scope of review espoused in *State Farm*, under which an "agency must examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.' "36 Superimposed on this analysis is a discussion of *Amoco Production Co.*, which demonstrates that, when applied to NEPA, an agency's mere compliance with section 102(2)(C)³⁷ may be insufficient. Rather, procedural compliance is adequate only if it is in accord with NEPA's underlying substantive goals.

Section III of this article presents the various tenets that are viable candidates for the environmental policy underlying NEPA's substantive goals. The four precepts analyzed are founded on two distinct philosophies: utilitarianism and environmentalism. The former gives rise to an environmental policy based on either exploitative or environmentally-conscious utilitarianism, and the latter an environmental policy stemming from either biocentrism or duty-based environmentalism. The discussion of these various principles is necessary because it establishes a base against which NEPA's statutory language

^{31.} Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 97 (1983); *accord* Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227 (1980).

^{32. 42} U.S.C. § 4331 (1982), discussed infra Section IV.

^{33.} See infra notes 84, 168-89 and accompanying text.

^{34. 463} U.S. 29 (1983); see generally Shapiro & Levy, Heightened Scrutiny of the Fourth Branch: Separation of Powers and the Requirement of Adequate Reasons for Agency Decisions, 1987 DUKE L.J. 387, 410-11.

^{35.} __ U.S. __, 107 S. Ct. 1396 (1987).

^{36.} Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Ins. Co., 463 U.S. 29, 43 (1983) (quoting Burlington Truck Lines, Inc. v. United States, 371 U.S. 156, 168 (1962)); accord Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 105 (1983).

^{37. 42} U.S.C. § 4332(2)(C) (1982).

and its legislative history can be evaluated. This discussion further demonstrates that only an environmental policy founded on duty-based environmentalism can protect Alaska's physical and biological elements from unnecessary degradation and ill-conceived development.

Section IV of this article examines NEPA's substantive goals by reviewing the Act's structure, language, and legislative history. When viewed in light of the characteristics of the four tenets discussed in Section III, the national environmental policy enacted by Congress, as embodied in section 101 of NEPA,³⁸ is one founded on duty-based environmentalism.

Section V of this article discusses NEPA's operation, as reflected (1) in the interpretative regulations promulgated by the Council on Environmental Quality ("CEQ") to provide guidance to federal agencies engaged in the completion of an EIS,39 and (2) by the Supreme Court in Baltimore Gas and Electric Co. v. Natural Resources Defense Council, Inc. 40 This discussion illustrates the fundamental conflict between the regulations promulgated by the CEO and the Court's interpretation of NEPA. The CEQ recognizes: (1) the importance of NEPA's substantive mandate; and (2) the precept underlying NEPA's espoused environmental policy as being duty-based environmentalism, as defined by this author. In contrast, the Court all but ignores NEPA's substantive goals and, to the extent substantive goals are taken into account, considers NEPA's mandate to be based on environmentally-conscious utilitarianism, as defined by this author. Section V then discusses how the Court's decision in Baltimore Gas would have differed had NEPA's substantive goals provided the base upon which the adequacy of the agency's compliance with NEPA had been measured. The Court's decision would have differed dramatically.

Finally, Section VI of this article concludes that if the Amoco Production Co. Court's method of statutory construction and the State Farm Court's scope of review are employed, then Baltimore Gas is no longer a sound decision. Furthermore, the Court's and the Ninth Circuit's view that NEPA is "essentially procedural" is erroneous. The impact of such a shift would be dramatic, and it would better fulfill NEPA's substantive goals. Consequently, NEPA would better serve as an environmental policy protecting and enhancing the integrity of Alaska's natural endowment.

^{38.} Id. § 4331.

^{39. 40} C.F.R. §§ 1500.1-1508.28 (1987).

^{40. 462} U.S. 87 (1983).

II. SCOPE OF REVIEW AND PROCEDURAL VERSUS SUBSTANTIVE COMPLIANCE

A. Scope of Review

The scope of review used by a court when considering the validity of an administrative agency's action is extremely important to the ultimate resolution of a challenge to the adequacy of an agency's action. In Motor Vehicle Manufacturers Association v. State Farm Mutual Automobile Insurance Co., 41 the United States Supreme Court rejected an extremely deferential approach under the arbitrary and capricious standard of review and adopted what has been labeled "rationalism," or the "rationalist model of judicial review." As explained by Professors Sidney Shapiro and Richard Levy, under this standard of review (a form of "hard look" review), agencies must "give a 'reasoned elaboration' demonstrating that their decisions serve the statutory ends for which they were created." The rational relationship between an agency's decision and its statutory mandate, however, is not "equivalent to the 'minimum rationality a statute must bear in order to withstand analysis under the Due Process Clause.' "44 Instead, as

Initially, under "the 'structuralist' model of judicial review," the focus of review was "on the constitutional limits to the structure of government." *Id.* at 397, 398-404, 414-16. As Shapiro and Levy explain, however, this review has been limited to the use of "statutory interpretation to ensure that agency action is within the scope of its authority." *Id.* at 401 (citing Board of Governors v. Dimension Fin. Corp., 474 U.S. 361 (1986)).

With the decline in "structuralism" the authors observe that the Court adopted a "proceduralist" model of review. Under this model, the courts based their review of agency actions on "procedural fairness." *Id.* at 397, 404-10, 416-22. In Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 558 (1978), the Court held that reviewing courts could not require an agency to emplace procedures that surpassed those imposed by the statute or the Constitution. Thus, in *Vermont Yankee* the Court rendered proceduralism impotent as an effective model of review. *See* Shapiro & Levy, *supra* note 34, at 420. In its place, the Court, followed by the lower federal courts, has turned to a "rationalist model of judicial review." *Id.* at 389, 410-13, 422-25, discussed *infra* notes 43-45, 51 and accompanying text.

^{41. 463} U.S. 29, 43-51 (1983).

^{42.} The "rationalist model of judicial review," as described by Professors Sidney Shapiro and Richard Levy, represents a departure by the Court and the lower federal courts from review models that provided agency decisions with substantial deference, namely "structuralism" and "proceduralism." See Shapiro & Levy, supra note 34, at 397.

^{43.} Shapiro & Levy, supra note 34, at 412.

^{44.} Bowen v. American Hosp. Ass'n, __ U.S. __, 106 S. Ct. 2101, 2112 (1986); accord Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co., 463 U.S. 29, 43 n.9 (1983).

25

the Court explained in State Farm, "the agency must examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.' ','45

The courts are less deferential to agency actions under "rationalism" than they were under other forms of review.46 Nevertheless, it does not necessarily follow that an agency's compliance with NEPA's procedural requirements would be insufficient. Particularly, given the Court's interpretation that NEPA is "essentially procedural,"47 it would appear that the "hard look" required by State Farm would involve a procedural review only. This view seems to be the one employed by the Court in Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc., 48 which is discussed in Section V of this article. Nevertheless, such a view cannot be reconciled with the Court's recent decision in Amoco Production Co. v. Village of Gambell. 49 The Court's decision in Amoco Production Co. would seem to suggest that NEPA's section 102 procedural requirements are secondary to its section 101 substantive goals, or at least, that the adequacy of an EIS or an administrator's action pursuant to an EIS should not be determined by mere compliance with the procedural requirements of section 102, but also should be measured against the satisfaction of section 101's broad goals.

Although the Court's decision in Amoco Production Co. does not involve an application of the arbitrary and capricious standard of review, the Court's interpretation of ANILCA's structure and purpose will affect subsequent application of the arbitrary and capricious standard. For example, to satisfy the State Farm standard an agency must

^{45.} State Farm, 463 U.S. at 43 (quoting Burlington Truck Lines, Inc. v. United States, 371 U.S. 156, 168 (1962)).

^{46.} See supra note 42.

^{47.} Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227 (1980) (quoting Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 558 (1978)).

^{48. 462} U.S. 87 (1983); see also Note, The Vermont Yankee Line: A Hard Look Becomes a Passing Glance, 19 New Eng. L. Rev. 837, 860-65 (1984). But see Shapiro & Levy, supra note 34, at 432 n.215 (Baltimore Gas does not undermine the heightened level of scrutiny underlying "rationalism," because the Court "reversed a court of appeals decision which focused not on the adequacy of the reasons supporting an agency decision, but rather on the wisdom of that decision itself."); Weinstein, Substantive Review Under NEPA After Vermont Yankee IV, 36 SYRACUSE L. REV. 837, 867-83 (1985) (interprets Baltimore Gas to acknowledge NEPA's substantive mandate and to permit a reviewing court to enforce NEPA's substantive goals).

^{49.} __ U.S. __, 107 S. Ct. 1396 (1987).

demonstrate that its action pursuant to an ANILCA section 810 significant restriction study⁵⁰ is in accord with the statutory mandate, that is, ANILCA's underlying substantive goals. This interpretation better fulfills the objectives of the "rationalist model" of review and also comports with Shapiro and Levy's observation that "the proper role of statutory interpretation under rationalism is to identify the value choice embodied in a statute. Identification of values obviously must occur if judicial review is to ensure a rational relationship between agency action and the statutory objectives."⁵¹ As demonstrated below, because of the similarities between section 102 of NEPA and section 810 of ANILCA, NEPA should be construed in a similar manner.

B. Amoco Production Co. v. Village of Gambell

In Amoco Production Co. v. Village of Gambell⁵² the Court confronted the issue of whether the Secretary of the Interior should be enjoined from selling oil and gas exploration leases because he had failed to comply with the procedural mandate of ANILCA section 810.53 In denying injunctive relief, the Court found the case to be indistinguishable from Weinberger v. Romero-Barcelo.54 In Romero-Barcelo, the Court held that the Navy's failure to obtain a National Pollution Discharge Elimination System permit prior to discharging ordnances, as required under the Federal Water Pollution Control Act ("FWPCA"),55 did not warrant the automatic issuance of injunctive relief.56 Instead, the Romero-Barcelo, Court found that the FWPCA did not preclude the courts from exercising equitable discretion in determining whether an injunction should be granted.⁵⁷ In both decisions the Court found that injunction relief was unnecessary because the agencies' procedural violations did not contravene the substantive goals of the statutes involved.58

^{50.} An ANILCA section 810 significant restriction study is the device employed by agencies to comply with the requirements of section 810. 16 U.S.C. § 3120 (1982). These studies can be analogized to the EIS's prepared by agencies in an effort to comply with section 102 of NEPA.

^{51.} Shapiro & Levy, supra note 34, at 434.

^{52.} __ U.S. __, 107 S. Ct. 1396 (1987).

^{53.} Id. at 1399 (construing ANILCA § 810, 16 U.S.C. § 3120 (1982)).

^{54.} Amoco Production Co., __ U.S. at __, 107 S. Ct. at 1402-03 (applying Weinberger v. Romero-Barcelo, 456 U.S. 305 (1982)).

^{55. 33} U.S.C. §§ 1311(a), 1323(a) (1982).

^{56.} Romero-Barcelo, 456 U.S. at 320.

^{57.} Id.

^{58.} See Amoco Production Co., __ U.S. at __, 107 S. Ct. at 1403; Romero-Barcelo, 456 U.S. at 314-15.

Amoco Production Co. is particularly probative due to the similarities between section 810(a) of ANILCA⁵⁹ and section 102(2)(C) of NEPA.⁶⁰ Section 810 of ANILCA provides in part:

(a) Factors considered; requirements

In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands . . . , the head of the Federal agency having primary jurisdiction over such lands . . . shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands . . . and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease or other use, occupancy, or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such Federal agency —

(1) gives notice to the appropriate State agency and the appropriate local committees and regional councils . . . ;

(2) gives notice of, and holds, a hearing in the vicinity of the area involved; and

(3) determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.

(d) Management or disposal of lands

After compliance with the procedural requirements of this section and the other applicable law, the head of the appropriate Federal agency may manage or dispose of public lands under his primary jurisdiction for any of those uses or purposes authorized by this Act or other law.^[61]

In comparison, section 102 of NEPA provides in part that:

The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this chapter, [62] and (2) all agencies of the Federal Government shall —

^{59. 16} U.S.C. § 3120(a) (1982).

^{60. 42} U.S.C. § 4332(2)(C) (1982).

^{61. 16} U.S.C. § 3120 (1982) (emphasis added).

^{62.} With this language, Congress explicitly intended to incorporate the substantive goals of section 101 into the 102 procedural process. That is, Congress intended section 102 to be the implementing mechanism for the national environmental policy espoused by section 101. See generally 40 C.F.R. § 1500.1(a) (1987) (CEQ

- (C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on
 - (i) the environmental impact of the proposed action,
 - (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
 - (iii) alternatives to the proposed action,
 - (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
 - (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies . . . shall be made available to the President, the Council on Environmental Quality and to the public . . . and shall accompany the proposal through the . . . agency review processes.

(E) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources; . . . ⁶³

The structure of these two statutes is similar in that, if the operative language of the acts is triggered,⁶⁴ both acts require the responsible agency or governmental entity to fulfill the procedural mandate prior to undertaking the proposed federal action. Congress' use of "shall" in ANILCA section 810 and NEPA section 102 indicates that

mandatory EIS guidelines), discussed infra notes 189-200 and accompanying text; Andrews, Agency Responses to NEPA: A Comparison and Implications, 16 NAT. RESOURCES J. 301, 301-02 (1976); Liebesman, The Council on Environmental Quality's Regulations to Implement the National Environmental Policy Act — Will They Further NEPA's Substantive Mandate?, 10 Envtl. L. Rep. (Envtl. L. Inst.) 50,039, 50,039-40; Peterson, An Analysis of Title I of the National Environmental Policy Act of 1969, 1 Envtl. L. Rep. (Envtl. L. Inst.) 50,035, 50,040 (1971); Note, Putting Bite in NEPA's Bark: New Council on Environmental Quality Regulations For the Preparation of Environmental Impact Statements, 13 U. MICH. J.L. Rep. 367, 367-68 (1980).

^{63. 42} U.S.C. § 4332 (1982) (emphasis added).

^{64.} ANILCA's procedural requirements attach when proposed federal action will "significantly restrict subsistence uses." 16 U.S.C. § 3120(a) (1982). In comparison, NEPA's procedural requirements apply when planned federal action is deemed to be "major Federal action[] significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C)(1982).

it intended the procedural requirements of these Acts to be nondiscretionary.65 Furthermore, Congress structured section 810 so that the head of an administrative agency "shall" first comply with the procedural scheme of ANILCA, and, having complied with the procedures. he "may" use his discretion to "manage or dispose of public lands."66 It contemplated that the head of the administrative agency would employ his discretionary powers in subsistence-related decisions only after complying with the procedural scheme Congress emplaced to "protect and provide the opportunity for continued subsistence uses on the public lands by Native and non-Native rural residents."67 Similarly, NEPA's procedural mandate, contained within section 102, requires the agency involved to prepare an EIS prior to proceeding with any "major Federal actions significantly affecting the quality of the human environment."68 Procedural compliance under NEPA is nondiscretionary, and only after such requirements are fulfilled may the agency involved proceed with the proposed action.⁶⁹

^{65.} As explained by the Supreme Court in Escoe v. Zerbst, 295 U.S. 490 (1935), "shall" is "the language of command." Id. at 493. Accordingly, Congress intended through section 810 of ANILCA to provide rural Alaskans an opportunity to participate in decisions affecting subsistence uses. Absent section 810, the agencies could have listened to the rural Alaskans had they so chosen, but they had not, as illustrated by the Secretary's and the State's failure to protect subsistence uses as Congress had demanded in the ANCSA, 43 U.S.C. §§ 1601-1629 (1982 & Supp. III 1985). This neglect, as explained by Congressman Udall, one of the principal authors and supporters of ANILCA, was a major impetus for the enactment of the subsistence subchapter containing section 810. See 125 CONG. REC. 9,904 (1979) (quoting H.R. CONF. REP. No. 746, 92d Cong., 1st Sess. 37, reprinted in 1971 U.S. CODE CONG. & ADMIN. NEWS 2247, 2250). Similarly, section 102 of NEPA — its "action forcing" provisions — ensures the implementation of NEPA's substantive goals. See cases cited supra note 6; supra note 62 and accompanying text. Thus, it is clear that Congress intended to leave the agencies no discretion when it used "shall" in ANILCA section 810 and NEPA section 102.

^{66. 16} U.S.C. § 3120 (1982).

^{67.} Id. § 3111(4). Congress explained in its declaration and findings: the national interest in the . . . continuation of the opportunity for a subsistence way of life by residents of rural Alaska require[s] that an administrative structure be established for the purpose of enabling rural residents who have personal knowledge of local conditions and requirements to have a meaningful role in the management of . . . subsistence uses on the public lands in Alaska.

Id. § 3111(5). Congress did not intend for ANILCA to preserve all subsistence uses. Although the statute does not define the "opportunity for" qualification of subsistence uses, its meaning is reflected in ANILCA's purpose: "This act does not, however, attempt to perpetuate [subsistence] lifestyle[s]. . . . Rather, the act would merely attempt to allow the Native people to decide for themselves the rate at which acculturation will take place." H.R. Rep. No. 1045, 95th Cong., 2d Sess., pt. 2, at 76 (1978).

^{68. 42} U.S.C. § 4332 (1982).

^{69.} See cases cited supra note 6.

Despite the nondiscretionary nature of Congress' procedural mandate, the Court held that section 810 of ANILCA does not affect the courts' ability to invoke the traditional balancing test when determining whether to issue injunctive relief for a substantial procedural violation of section 810(a).⁷⁰ Therefore, upon balancing the interests, the Court found that the Secretary's failure to comply with section 810 of ANILCA did not warrant an injunction.⁷¹

In light of Congress' nondiscretionary procedural mandate, it would at first blush seem that such a holding abridges the separation of powers doctrine,72 which in the context of NEPA litigation has led the Court to explain that "once an agency has made a decision subject to NEPA's procedural requirements, the only role for a court is to insure that the agency has considered the environmental consequences; it cannot 'interject itself within the area of discretion of the executive as to the choice of the action to be taken." "73 As it did in Romero-Barcelo, however, the Court based its holding on an interpretation of the statute that skirts the separation of powers dilemma and conforms with the use and interpretation of statutory mandates under the "rationalist" model of review.⁷⁴ The Court explained that "Illike the First Circuit in Romero-Barcelo, the Ninth Circuit erroneously focused on the statutory procedure rather than on the underlying substantive policy the process was designed to effect — preservation of subsistence resources."75 The Court based its holding on its determination that the procedural requirements of section 810(a) are subordinate to its underlying substantive policy;76 therefore, because the Secretary's action "did not undermine the [substantive] policy" of

^{70.} Amoco Prod. Co. v. Village of Gambell, __ U.S. __, 107 S. Ct. 1396, 1403-05 (1987). The Court explained that the Ninth Circuit's presumption favoring injunctive relief "is contrary to traditional equitable principles and has no basis in ANILCA." Id. The United States District Court for the District of Alaska in Sierra Club v. Penfold, 664 F. Supp. 1299, 1305-07 (D. Alaska 1987), applied this aspect of the Amoco Production Co. decision to determine whether to issue an injunction for a violation of NEPA section 102(2)(C). See infra notes 85-88 and accompanying text.

^{71.} Amoco Production Co., _ U.S. at __, 107 S. Ct. at 1403-05.

^{72.} See Note, Preliminary Injunctions as Relief for Substantial Procedural Violations of Environmental Statutes: Amoco Production Co. v. Village of Gambell, 4 ALASKA L. REV. 105, 117-31, 148-51 (1987).

^{73.} Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227-28 (1980) (quoting Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976)).

^{74.} Shapiro & Levy, supra note 34, at 433-34, discussed supra at note 51 and accompanying text.

^{75.} Amoco Prod. Co. v. Village of Gambell, __ U.S. __, 107 S. Ct. 1396, 1403 (1987).

^{76.} Id.

ANILCA,⁷⁷ injunctive relief was not warranted for the violation of ANILCA's mandatory procedures.⁷⁸

The Court's determination that the Ninth Circuit erred in "focus[ing] on the statutory procedure rather than on the underlying substantive policy the process was designed to effect" could dramatically affect the implementation of section 102 of NEPA. Because of the structure and importance of ANILCA's procedural mandate, it is difficult to imagine a statute for which the nondiscretionary procedures can be construed to be primary and not subordinate to the underlying substantive purpose. Furthermore, as demonstrated above, the procedural mandates embodied in section 102 of NEPA and section 810 of ANILCA are similar. 81

In Sierra Club v. Penfold, 85 the United States District Court for the District of Alaska recently applied the injunction test enunciated in Amoco Production Co. 86 to determine whether the Bureau of Land Management ("BLM") should be enjoined from approving certain

^{77.} Id.

^{78.} Id. at 1405.

^{79.} Id.

^{80.} See Note, supra note 72, at 117-31.

^{81.} See supra notes 59-69 and accompanying text. The Court, however, has never decided whether and to what extent NEPA affects a court's ability to invoke the traditional equitable balancing test in deciding whether to grant or deny injunctive relief for a substantial procedural violation of section 102(2)(C).

^{82.} Amoco Production Co., __ U.S. at __, 107 S. Ct. at 1403 (emphasis added).

^{83. 427} U.S. 390 (1976) (emphasis added).

^{84.} Id. at 409 (emphasis added); accord 40 C.F.R. § 1500.1(c) (1987), discussed infra note 191 and accompanying text; see also Liebesman, supra note 62, at 50,039; Peterson, supra note 62, at 50,035; Strohbehn, supra note 13, at 104 ("NEPA's substantive mandate [is] to preserve and enhance the environment to the fullest extent possible.").

^{85. 664} F. Supp. 1299, 1305-06 (D. Alaska 1987).

^{86.} __ U.S. at __, 107 S. Ct. at 1403-05, discussed *supra* notes 70-71 and accompanying text.

placer mining operations. Injunctive relief was sought because the BLM had failed to prepare an EIS addressing the cumulative impact of the mining activities. In granting delayed injunctive relief, the court balanced the equities, as required in *Amoco Production Co.* for a violation of section 810 of ANILCA.⁸⁷ The court's application of the balancing test is important because it represents a dramatic departure from the injunction test generally applied in the Ninth Circuit for such violations of NEPA. The court did not recognize the usual presumption favoring the issuance of a preliminary injunction upon the showing of a probable violation of NEPA section 102.⁸⁸ This wholesale adoption of the injunction rule applied in *Amoco Production Co.* further suggests that, at least in the eyes of the Alaska District Court, ANILCA's and NEPA's procedural mandates are similar and thereby warrant analogous injunction standards.

Additional evidence of the Supreme Court's willingness to reconsider NEPA in a manner that would elevate the importance of its substantive goals is the Court's statement that:

Environmental injury, by its nature, can seldom be adequately remedied by money damages and is often permanent or at least of long duration, *i.e.*, irreparable. If such injury is sufficiently likely, therefore, the balance of harms will usually favor the issuance of an injunction to protect the environment.⁸⁹

This observation of the Court seems to reflect a view that, in most cases in which a proposed action will injure the environment, an injunction is warranted because environmental considerations will outweigh other factors. Such a view echoes the substantive goals of NEPA and, therefore, could be construed as further evidence that, given the opportunity, the Court would emphasize NEPA's substantive goals and hold that environmental harm, because it is often "irreparable," should be given priority over other factors.

The above analysis demonstrates that the Court's decisions in State Farm and Amoco Production Co. provide a basis upon which to view NEPA as not "essentially procedural" but rather essentially substantive. That is, compliance with section 102 should only be adequate if it is in accord with NEPA's substantive goals contained in

^{87. 664} F. Supp. at 1305-06.

^{88.} Id. But see Save Our Ecosystems v. Clark, 747 F.2d 1240, 1250 (9th Cir. 1984) ("Irreparable damage is presumed when an agency fails to evaluate thoroughly the environmental impact of proposed action. Only in a rare circumstance may a court refuse to issue an injunction when it finds a NEPA violation." (citation and footnote omitted)); Friends of the Earth, Inc. v. Coleman, 518 F.2d 323, 330 (9th Cir. 1975); California v. Bergland, 483 F. Supp. 465, 498-99 (E.D. Cal. 1980), aff'd in part and rev'd in part, both on other grounds, 690 F.2d 753 (9th Cir. 1982); see also Note, supra note 72, at 134-36.

^{89.} Amoco Production Co., __ U.S. at __, 107 S. Ct. at 1404.

section 101. Such a shift would significantly alter the manner in which courts review the adequacy of an agency's compliance with section 102 of NEPA. In the Ninth Circuit, for instance, the "rule of reason," which is invoked as the appropriate standard of review, must be rejected because it is premised on NEPA being "essentially procedural." Therefore, the arbitrary and capricious standard, as applied by the Court in *State Farm*, would be the appropriate standard of review for considering (1) the adequacy of an EIS, and (2) the lawfulness of an administrator's action pursuant to an EIS.

Although affecting the scope and focus of judicial review, the real impact of such a shift in emphasis favoring NEPA's substantive goals will depend on the nature of these goals. To understand fully and evaluate this national environmental policy, however, the basic tenets underlying such a policy must be considered; only then can the magnitude of Congress' broad sweeping goals contained in section 101 of NEPA be appreciated.

III. THE TENET UPON WHICH NEPA'S SUBSTANTIVE GOALS ARE FOUNDED

In response to its recognition that man's activities have significant environmental impacts, Congress enacted a national environmental policy: section 101 of NEPA.⁹² Two philosophical theories provide viable alternatives upon which to found NEPA's national environmental policy: utilitarianism and environmentalism. The impact of the environmental policy will dramatically differ depending upon which tenet is accepted. A policy based on a form of utilitarianism will favor development over environmental protection, whereas, a policy founded on a form of environmentalism will encourage environmental protection.

A. Utilitarianism

Self interest provides the foundation for utilitarian philosophy.⁹³ Utilitarian philosophy in turn supports two distinct environmental policies. The first, exploitative utilitarianism, is based on the belief

^{90.} See supra notes 19-23 and accompanying text.

^{91.} See Lathan v. Brinegar, 506 F.2d 677, 692 (9th Cir. 1974) (en banc), discussed supra note 22.

^{92. 42} U.S.C. § 4331 (1982).

^{93.} For a general discussion of utilitarianism and the principles upon which it is based, see Bentham, An Introduction to the Principles of Morals and Legislation, in The Selected Writings of Jeremy Bentham, James Mill & John Stuart Mill 1, 7-12 (P. Wheelwright ed. 1935); Mill, Utilitarianism, in The Selected Writings of Jeremy Bentham, James Mill & John Stuart Mill 397, 403-26 (P. Wheelwright ed. 1935).

that man should use and consume the earth's resources as quickly as possible, so long as exploitation is in man's or an individual's present best interest. In other words, all decisions are economic, self interest-based, with the interests of future generations heavily discounted. Under the second view, environmentally-conscious utilitarianism, the environment is considered an entity that must be managed in order to maximize its productivity. Hence, although decisions are founded on economic self interest, the future and alternative resource uses or values are an integral factor in the present allocation and use of a resource.

Exploitative Utilitarianism. Environmental policy based on exploitative utilitarianism either is founded on: (1) a total disregard for the environment; or (2) an ignorant view that either the earth's resources are boundless, with man's only physical limit being himself. or technological growth is exponential and benign. The first view environmental indifference — is best illustrated by the practices of the "shake-makers." A shake-maker, as described by environmentalist John Muir, would find a stand of virgin pine, quickly build a shanty, and then proceed to level the forest in order to obtain the bottom ten to twenty feet of trees 250 feet tall. The shake-maker would cut until the stand of pine was exhausted and then move on to another virgin stand. Muir noted that the shake-makers "[bought] no land, [paid] no taxes, dwell[ed] in paradise with no forbidding angel either from Washington or from heaven. Every one of the frail shake shanties [was] a center of destruction "95 Furthermore, he explained that all shake-makers "preferred shake business, until something more profitable and as sure could be found, with equal comfort and independence."96 Individuals such as the shake-makers, whose motivations are exclusively self interest-based, do not contemplate, hence make no attempt to justify, the environmental consequences of their actions.

Individuals within the second group share the same self interest-based motivations as the shake-makers but attempt to justify their actions. Justification, however, lies on the tenuous foundation that there is a technological solution for every conceivable resource or environmental problem. The epitomy of this philosophy is captured in Professor Julian Simon's statement: "[A]n increased need for resources usually leaves us with a permanently greater capacity to get them, because we gain knowledge in the process. And there is no meaningful physical limit — even the commonly mentioned weight of the earth —

^{94.} J. Muir, Our National Parks 353-65 (1981).

^{95.} Id. at 356.

^{96.} Id. at 354.

to our capacity to keep growing forever." Under this view, it follows that the only real problem with the present state of the environment is the failure to exploit fully the earth's resources.

Simon applies this philosophy to population growth and concludes that the only population problem lies in the attempt to control and curb population growth. Under Simon's theory, attempts to control population growth impede man's progress and cultural development because:

The main fuel to speed our progress is our stock of knowledge, and the brake is our lack of imagination. The ultimate resource is people — skilled, spirited, and hopeful people who will exert their wills and imaginations for their own benefit, and so, inevitably, for the benefit of us all.⁹⁸

Simon's thesis is founded on the assumption that each additional person will contribute positively to man's progress. Simon and other technological optimists, however, fail to address the fact that as resources become scarcer and mere existence becomes a paramount issue, as is the situation in the parts of the world in which starvation and disease are the rule and not the exception, the number of "skilled, spirited, and hopeful people who will exert their wills and imaginations for their own benefit" will most likely decline.

Furthermore, the success of technological optimism is founded on the beliefs that new technology is benign and political institutions will mature exponentially, as is necessary to maximize the new technologies. Political institutions, unfortunately, are primarily reactive in nature 100 and, therefore, cannot keep pace with exponential technological growth. Nuclear power represents an example of governmental and societal inability to mature at a rate necessary to ensure the benign use of technological growth. Although nuclear power has many beneficial uses, these applications have been overshadowed by its weapon and fuel capabilities. The first presents mankind with the insecurity of the arms race between the United States and the Soviet Union, threat of nuclear terrorism, and the potential of a nuclear holocaust. The second leaves man with high-level radioactive wastes for which technology has not provided a method of safe, long-term disposal. These

^{97.} J. SIMON, THE ULTIMATE RESOURCE 346 (1981); accord, No Small Difference of Opinion, WORLD ENVIRONMENT NEWSLETTER, Aug. 15, 1972, at 30-31 (in his comments concerning the exponential growth of knowledge, Lord Zuckerman explained that "the tree of knowledge will go on growing endlessly"), quoted in W. OPHULS, ECOLOGY AND THE POLITICS OF SCARCITY 116 (1977).

^{98.} J. Simon, supra note 97, at 348 (emphasis added).

^{99.} See, e.g., Krier & Gillette, The Un-Easy Case for Technological Optimism, 84 MICH. L. REV. 405, 413-29 (1985).

^{100.} Id. at 428.

^{101.} See generally J. Schell, Fate of the Earth (1982).

two important technological dilemmas are not the product of the technology itself, but rather, political and societal inability to mature to a level necessary to harness responsibly the technology.

Institutional inability to keep pace with technology and resource-related dilemmas and their subsequent impacts are further illustrated by Professor Garrett Hardin's explanation of the tragedy of the commons¹⁰² and is most clearly presented in model two of Professor Kenneth Boulding's mesa analysis, which illustrates the dilemma through population growth.¹⁰³ Boulding analogizes the present world population to that of a population atop a "pretty crowded mesa surrounded on all sides by cliffs," in which the rich occupy the center of the mesa and are protected by a fence from the poor who occupy the remainder of the mesa. Provided no measures are taken to curb population and resource consumption on the mesa, Boulding asserts that "before the poor push each other off the edge, they [will] pull down the fence, invade the preserve of the rich, and the whole mesa becomes one great mass of misery and poverty." ¹⁰⁴

Boulding's example clearly demonstrates the physical and political flaws inherent in the utilitarian philosophy espoused by Simon and embodied in technological optimism. Simply stated, the mesa, like our finite world, cannot grow and the impoverished — a group that will enlarge as resources become scarcer and population increases — will not maintain the status quo either by leaping from the mesa or by developing scientific and technological means capable of sustaining

^{102.} Hardin invokes the dilemma of exponential population growth within a finite world to suggest that it is but one example of a class of "no technical solution problems." Hardin, *The Tragedy of the Commons*, in Managing the Commons 16, 17 (G. Hardin & J. Baden eds. 1977). Such problems have neither scientific nor technological solutions. Rather, Hardin explains that the solutions to these problems are social/institutional ones founded on the concept of "mutual coercion" — coercion that is "mutually agreed upon by the majority of the people affected." *Id.* at 27. Hardin suggests that if a social solution is not discovered, then a tragedy of the commons is certain. *Id.* at 20-21. The commons are those resources for which use and access are unrestricted — private property rights are nonexistent. The tragedy, therefore, unfolds because the commons are finite; thus, unrestrained use degrades the resource. Individual users, however, will not reduce their use because, absent coercion, it is unlikely that all users will similarly modify their actions. Hence, for example, in a situation in which the commons is a defined unit of grazing land, Hardin explains that:

Each man is locked in a system that compels him to increase his herd without limit — in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in the commons brings ruin to all.

^{103.} Boulding, Commons and Community: The Idea of a Public, in Managing The Commons 280, 291 (G. Hardin & J. Baden eds. 1977).

^{104.} Id. at 291.

unlimited growth. Furthermore, even if the technology is developed, it is unlikely that political institutions will adapt quickly enough to employ that technology responsibly and in a benign fashion. Thus, the only solution available for the mass of underprivileged of a utilitarian-based society who are incapable of solving their dilemma scientifically or technologically (because they lack the adequate education and more importantly because their lives are consumed in a day-to-day struggle to exist) is to take from the rich, thereby destroying the status quo through political and social strife. Hence, if the goals of an environmental policy are either for man to develop a harmonious relationship with the environment or to ensure that environmental values are considered, then exploitative utilitarianism is inept. 105

2. Environmentally-Conscious Utilitarianism. Historically, the Conservation movement, under Gifford Pinchot, ¹⁰⁶ provides the best example of this form of utilitarianism. Conservation, as defined by Pinchot, was based on management of the earth's resources in such a way as to maximize the utility of the present generation. Specifically, "[c]onservation mean[t] the greatest good to the greatest number for the longest time." Three principles provided the core of this policy:

The first principle of conservation is development, the use of the natural resources now existing on this continent for the benefit of the people who live here now. There may be just as much waste in neglecting the development and use of certain natural resources as there is in their destruction. . . .

[S]econd . . . conservation stands for the prevention of waste. . . .

[T]hird . . . natural resources must be developed and preserved for the benefit of the many, and not merely for the profit of a few. . . . 108

Although a major political force affecting all aspects of life during the early 1900's, ¹⁰⁹ Conservation did not persist. The primary reason for Conservation's short duration as a national ethic was the tenet's inability to recognize value in unused or undeveloped lands. This fault

^{105.} Furthermore, as Section IV demonstrates, exploitative utilitarianism is a tenet that Congress did not consider to be the basis for the environmental policy enacted.

^{106.} Gifford Pinchot, Chief of the Division of Forestry (1898-1905), Chief of the Bureau of Forestry in the Department of Agriculture (1905-1910), was the driving force behind the Conservation movement. The movement began as a philosophy by which the national forests were to be managed (sustainable-yield management) and under Theodore Roosevelt's presidency became a short-lived national ethic. See generally S. Dana & S. Fairfax, Forest and Range Policy 69-97 (1980); S. Hays, Conservation and the Gospel of Efficiency 27-48, 122-27 (1980).

^{107.} G. PINCHOT, THE FIGHT FOR CONSERVATION 48 (1910).

^{108.} Id. at 42-46 (1910).

^{109.} See S. DANA & S. FAIRFAX, supra note 106, at 69-97; S. HAYS, supra note 106, at 27-48, 122-27.

provided a nucleus for the Preservation movement¹¹⁰ headed by John Muir — a movement that Pinchot was unable to quash. The conflict between Conservation and Preservation demonstrated the inherent limitations of an environmental policy based on utilitarian principles: the inability to recognize inherent value in non-productive land.

The failure of Conservation to become an enduring national environmental ethic, however, did not eliminate environmental policy based on utilitarian or benefit-cost (economic efficiency) principles.¹¹¹ Currently, in the United States there is a resurgence of utilitarian-based environmental policy. Illustrative of this point are two initiatives of the Reagan administration: (1) its attempts to weaken or eliminate various environmental statutes and regulatory programs;¹¹² and (2) its use of benefit-cost analysis as a policy rule, rather than as a tool in administrative decisionmaking.¹¹³ The policy rule versus tool distinction is especially important because, when benefit-cost analysis is used as a rule, decisions must mirror the results of a cost efficiency determination; whereas when benefit-cost analysis is employed as a tool, decisions must consider but are not bound by the benefit-cost results.

The benefit-cost (economic efficiency) methodology in which environmental costs and benefits are weighed against their non-environmental counterparts¹¹⁴ either to determine the net present

All of the costs and benefits of a project, to all of the individual members of the relevant society, are supposed to be taken into account, discounting future costs and benefits, ideally at the rate of time preference of each person concerned. The benefits of a project to an individual are, in principle, to be valued at the maximum amount of money he would be willing to pay in

^{110.} See infra note 140 and accompanying text.

^{111.} Professor Alan Coddington views benefit-cost analysis as a "variant of Utilitarian philosophy," or, in other words, the "New Utilitarianism." Coddington, "Cost-Benefit" as the New Utilitarianism, 42 Pol. Q. 320 (1971). "Wealth maximization," as defined by Richard Posner, is another economic-based philosophy that can provide the basis for an environmental policy founded on economic principles. See infra notes 124-25 and accompanying text.

^{112.} See generally N. Vig & M. Kraft, Environmental Policy in the 1980's: Reagan's New Agenda (1984).

^{113.} See, e.g., Exec. Order No. 12,291, 3 C.F.R. 127 (1982), reprinted in 5 U.S.C. § 601 at 431-34 (1982); Leonard & Zeckhauser, Cost-Benefit Analysis Applied to Risks: Its Philosophy and Legitimacy, in VALUES AT RISK 31, 33 (D. Maclean ed. 1986) ("Cost-benefit analysis, which begins by totaling the gains and losses of each party, is the appropriate way to determine which public decisions affecting risk levels would gain the hypothetical consent of the citizenry. We know of no other mechanism for making such choices that has an ethical underpinning.").

^{114.} Professor David Copp explains that "there is a standard view about the associated economic techniques and criteria" underlying cost-benefit methodology. Copp, Morality, Reason, and Management Science: The Rationale of Cost-Benefit Analysis, in ETHICS AND ECONOMICS 128, 130 (E. Paul, J. Paul & F. Miller eds. 1985). This methodology requires:

value¹¹⁵ or the benefit-cost ratio¹¹⁶ of a particular project — on the surface at least — appears to encompass the Conservation/Preservation dispute. The benefit-cost methodology is based on the theory that the intangible properties of wilderness and values of undeveloped lands can be quantified and, therefore, can be weighed against the values associated with developing these lands and other relevant nonenvironmental benefits and costs. Hence, the projects chosen purport to maximize social welfare because only those projects are chosen that either have the greatest net present value or benefit-cost ratios equalling or exceeding one.¹¹⁷ The effectiveness of such a decision-making rule as an environmental policy, however, is contingent upon the adoption of two premises: (1) environmental values, such as clean water or endangered species, are capable of quantification; and (2) an appropriate method of valuation exists.

The assumption that environmental values are quantifiable presumes that all environmental and resource problems are economic rather than social or ethical problems. For example, as economist Larry Ruff explains, the pollution dilemma facing a "rational society" (one basing its environmental policy on cost efficiency) is not "between clean air and dirty air, or between clear water and polluted water, but rather between various *levels* of dirt and pollution." Such a view of pollution, however, would conflict with that held by an environmentalist. Aldo Leopold, for example, believes that any amount of pollution or similar activity that disturbs the "integrity, stability, and beauty of the biotic community" is "wrong." 120

Additionally, within a "rational society" it is assumed that either consumer value equals citizen value or no such distinction exists. Benefit-cost and other "economic approaches to public policy may," as Professor Mark Sagoff concedes, "purport to weigh both consumer and citizen values." He asserts, however, that "we may, as citizens,

order to have the project go forward.... Ideally, all costs and benefits are to be assigned a monetary value, positive or negative, and, in the simple case — where there is no uncertainty and where all costs and benefits are expected immediately — their values are added. The result is a measure of the expected net social gain or loss.

Id. (footnote and citations omitted).

^{115.} Net present value is the sum of the discounted costs and benefits associated with the project over its economic life.

^{116.} Benefit-cost ratio equals the discounted value of a project's benefits divided by the discounted value of its costs.

^{117.} Copp, supra note 114, at 130-31.

^{118.} Ruff, *The Economic Common Sense of Pollution*, in Economics of the Environment 41, 41-42 (R. Dorfman & N. Dorfman 2d ed. 1977).

^{119.} Id. at 43.

^{120.} A. LEOPOLD, A SAND COUNTY ALMANAC 262 (1949), discussed *infra* notes 139, 141-44 and accompanying text.

believe that certain public values or collective goals (e.g., that an innocent person not be convicted) supersede the values that we pursue as self-seeking individuals (e.g., security from crime). Moreover, we might decide to sacrifice economic optimality for cleaner air and water."¹²¹

Economists attempt to address Sagoff's concern by either assigning value to nonmarket goods or internalizing externalities, that is, assigning values to "public wants or citizen preferences," such as the value of clean water or ensured survival of species that otherwise lack value. Sagoff believes, however, that this effort "to measure the convictions or values of citizens by pricing them as market externalities confuses what the individual wants as an individual and what he or she, as a citizen, believes is best for the community." This, Sagoff asserts, is a categorical mistake, because self interest motivates the consumer self; whereas community convictions — not individual wants or preferences — motivate the citizen self. Consequently, any attempt to place a value (willingness to pay) on a public good must fail, because a community conviction cannot be measured in utilitarian terms.

Economists disagree, however. Richard Posner, for instance, would concur with Sagoff's conclusion that autonomy/consent — the individual's ability to choose and to participate — is paramount. ¹²⁴ But, if given the opportunity to choose, Posner maintains that an individual will choose a society or policy that maximizes wealth. The wealth of society, as defined by Posner, is "the aggregate satisfaction of those preferences (the only ones that have ethical weight in a system of wealth maximization) that are backed up by money, that is, that are registered in a market." Hence, under Posner's view of society and man (the view incorporated by a "rational society") the categorical mistake is nonexistent, because both the consumer and citizen selves (if such a distinction could even exist in Posner's view of society) are driven by the need to maximize wealth.

Once it is established or accepted that environmental values are quantifiable, then traditional benefit-cost analysis requires that monetary value be assigned to all factors relevant to particular decisions or policy questions. Quantifying public and private values, as Professor R. H. Coase explains, enables society when "devising and choosing

^{121.} Sagoff, Economic Theory and Environmental Law, 79 MICH. L. REV. 1393, 1401 (1981).

^{122.} Id. at 1403.

^{123.} Id. at 1410.

^{124.} Compare Sagoff, supra note 121, at 1414-16 with R. Posner, The Economics of Justice 88-99 (1981).

^{125.} R. POSNER, supra note 124, at 61.

between social arrangements . . . [to] have regard for the total effect." ¹²⁶ The success of weighing all private and public benefits and costs in attaining an "optimal arrangement of rights, and a greater value of production which it would bring," is contingent upon "costless market transactions." ¹²⁷ For Coase asserts that the value of the right to pollute and the value of the right to be free from pollution in a system without transaction costs are equal. Therefore, the initial assignment of the rights is immaterial, and furthermore the market would achieve an optimal arrangement of rights. ¹²⁸ Nevertheless, Coase admits the presence of transaction costs, which are "often extremely costly;" ¹²⁹ therefore, the initial allocation of rights will affect the efficiency of the economic system and the social arrangements.

Moreover, even if transaction costs are negligible or otherwise accounted for, Coase's theory further assumes that value is uniform. That is, one's asking and offering price must be equal. This assumption is questionable. For instance, Professor Duncan Kennedy demonstrates that the monetary value assigned to either a tangible (body of water) or intangible (solitude) entity will differ from one person to another as well as for each individual depending on whether the assignment of value is based on one's offering or asking price. 131

In addition to these considerations, present value must be weighed against future value and an appropriate discount rate must be assigned. Inherent in this calculation is the question of whether the present generation has any obligation to future generations to protect and provide a clean environment or to preserve finite resources. Classic utilitarians would say no. Regardless of whether a duty exists, this dilemma is particularly perplexing in the area of environmental policy because: (1) many of nature's components have no present value, much less a calculable future value; and (2) many environmental disturbances caused by the present generation are not limited, but rather will linger and perhaps worsen over time.

In determining whether environmentally-conscious utilitarianism and its necessary assumptions provide an adequate tenet upon which to anchor a national environmental policy, it is helpful to consider how such a policy would operate. Professor David Ehrenfeld clearly

^{126.} Coase, The Problem of Social Cost, 3 J. LAW & ECON. 1, 44 (1960).

^{127.} Id. at 15-16.

^{128.} Id. at 16.

^{129.} Id. at 15.

^{130.} Copp, supra note 114, at 133-35 (a person's willingness to pay and welfare gain may vary depending on an individual's wealth, available information, and one's willingness, or lack thereof, to sell at any price); Kennedy, Cost-Benefit Analysis of Entitlement Problems: A Critique, 33 STAN. L. REV. 387, 401-10 (1981); Krutilla, Conservation Reconsidered, 57 AM. ECON. REV. 777, 779-80 (1967).

^{131.} Kennedy, supra note 130, at 401-10.

illustrates the consequences of basing environmental policy on wealth maximization or cost efficiency principles.¹³² In assessing the risks inherent in assigning economic value to a marsh site, Ehrenfeld explains:

First, any competing use with a higher value, no matter how slight the differential, would be entitled to priority in the use of the marsh site. Because most competing uses are irreversible, a subsequent relative increase in value of marsh land would come too late

Second, values change

Third, the implication of the study is that both the valuable and the valueless qualities of the tidal marsh are all known and identified. Conversely, this means that those qualities of the salt marsh that have not been assigned a conventional value are not very important

Fourth, . . . quick profits from immediate exploitation, even to the point of extinction of a resource, often are economically superior to long-term, sustained profits of the sort that might be generated by the intact resource In other words, finding a value for some part of Nature is no guarantee that it will be *rational* for us to preserve it — the reverse may hold. 133

Similarly, an environmental policy based on utilitarian principles — even environmentally-conscious utilitarianism — will not guarantee that Alaska's physical and biological constituents will receive appropriate consideration in development related decisions. Where cost efficiency is invoked as a decisionmaking rule, the fragile ecosystems of the Arctic National Wildlife Refuge, old growth timber in the Tongass National Forest, pristine river systems adjacent to mineral rich formations, and wildlife living in areas sustaining mineral and petroleum activities are just a few examples of Alaska's natural resources that would fare no better than Ehrenfeld's marsh.

B. Environmentalism

In contrast to utilitarianism, environmentalism is founded on the principle that man's relationship with nature must be a harmonious one. From this precept, two forms of environmentalism have developed. One form, biocentrism, harbors the view that man is indistinguishable in kind from the other inhabitants of the earth. Under the second form, duty-based environmentalism, man is not considered equal to other species; rather, man is viewed as having an obligation to preserve the environment and its inhabitants.

1. Biocentrism. An environmental policy based on a belief that man is similar in kind to the earth's other inhabitants is philosophically the most harmonious and conceptually the simplest philosophy

^{132.} D. EHRENFELD, THE ARROGANCE OF HUMANISM 177-211 (1978).

^{133.} Id. at 201-02.

upon which to base an environmental policy. Unfortunately, an environmental policy founded on this philosophy is impractical and unrealistic. This view, illustated in the writings of environmentalist Henry Thoreau, 134 and ecologists Bill Devall and George Sessions, 135 and embodied in an environmentally-conscious, subsistence-type lifestyle, fails to accommodate man's dual nature — his thinking and nonthinking selves. 136 Because of the marriage of technology and science, man has developed his "self conscious and intelligent will," 137 as George Perkins Marsh labeled man's thinking self, over his nonthinking, natural self in such a manner that precludes the two selves of man from existing in harmony as they could in a subsistence-type existence. In a subsistence-type lifestyle man's ability to alter nature on a regional or global scale is limited; hence his actions, although differing in kind in that they are products of a "self conscious and intelligent will," do not differ in degree from those of other inhabitants of the earth.

Thus, regardless of its intellectual appeal, biocentric philosophy is unrealistic, mainly because it can only succeed if man is willing to establish a "harmonious dynamic balance of humans-in-Nature," thereby requiring him to accept a subsistence-type lifestyle similar to that pursued by Thoreau. Such a commitment, absent a nuclear holocaust or other similar catastrophe divorcing science and technology, is precluded by the development of man's thinking self. Therefore, today a successful environmental policy cannot be based on a biocentric philosophy.

^{134.} H. THOREAU, WALDEN (J. Shanley ed. 1973).

^{135.} Devall & Sessions, The Development of Natural Resources and the Integrity of Nature, 6 Envil. Ethics 293 (1984).

^{136.} See generally I. KANT, CRITIQUE OF PURE REASON 327-67 (N. Smith trans. 1929) (Transcendental Dialectic, Book II, ch. I, The Paralogisms of Pure Reason); Rolston, Can and Ought We to Follow Nature, 1 ENVIL. ETHICS 7, 12-30 (1979).

Upon observing that man's nature is dualistic, Professor Holmes Rolston III concludes that man is not merely another creature inhabiting the earth. Thus, he explains that because man is the only "animal[] with deliberate options and these options do enable us to command nature, the more so with the advance of science," Rolston, supra, at 14, and because human actions are "unnatural," id. at 15, man is, therefore, a moral creature and cannot follow nature in an "imitative ethical sense." Id. at 16-19. Nevertheless, Rolston concludes that we ought to follow nature in two capacities. First, we should follow nature in an "axiological sense" because "[w]e find meanings in wild things," id. at 24, and therefore "[w]e ought not destroy this integrity [of nature], but rather preserve it and contemplate it, and in this sense our relations with nature are moral," id. Second, we should follow nature in a "tutorial sense," because "we have enormous amounts of nature programmed into us," id. at 26, and thus "our optional conduct ought to be commensurately natural.... Our ethical life ought to maintain for us a good natural fit in both an efficient and a moral sense," id. at 27.

^{137.} G. MARSH, MAN AND NATURE 41 (1974).

^{138.} Devall & Sessions, supra note 135, at 319.

2. Duty-Based Environmentalism. Obligation serves as the foundation for a duty-based environmental policy. Under this policy man's relationship to nature is similar to a man-within-nature view in that it embraces environmentalism — the demand that man's interaction with nature be harmonious. But, unlike a biocentric philosophy in which harmony exists because man is merely another species in its natural state inhabiting the earth, under a duty-based view harmony is present because, as environmentalist Aldo Leopold explains, "[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." 139

Historically, Preservation, as promoted by Muir, and the Land ethic, as described by Leopold, represent two examples of a duty-based environmental ethic. The Preservation movement was founded on an understanding that a need existed to use and manage resources, but that "first priority" should be given to "preserving the finest land-scapes of the public domain as temples unspoiled and intact." Muir believed that man had a duty to protect certain pristine environments from the exploiters and managers.

The Land ethic, as described by Leopold, is dependent on man's relationship to land evolving from one that is "strictly economic, entailing privileges but not obligations,"141 to one that is ethical. Leopold demonstrates the plausibility of such a transition by reminding us that "social ethics . . . a century ago" were "governed wholly by economic self-interest,"142 rather than by obligation or notions of "right or wrong." The abolition of slavery in the United States, where slaves were considered property and, as Leopold explains, "[t]he disposal of property was then, as now, a matter of expediency, not of right and wrong,"143 represents a classic example of human relationships evolving from an economic, self interest base to an ethical base. Leopold, therefore, believes that man can shed his property-based view of nature for an ethically-based one in a manner similar to our transition vis-à-vis human relationships. (In fact, Professors Eva and John Hanks believe that NEPA meant to provide the basis for such an ethic - an "ecological ethic.")144 The Land ethic requires a fundamental value change, demanding that every decision affecting the environment be made in a manner that preserves man's harmonious relationship with nature.

^{139.} A. LEOPOLD, supra note 120, at 262.

^{140.} S. UDALL, THE QUIET CRISIS 120 (1963); see also S. DANA & S. FAIRFAX, supra note 106, at 45; S. HAYS, supra note 106, at 141-46.

^{141.} A. LEOPOLD, supra note 120, at 238.

^{142.} *Id.* at 245.

^{143.} Id. at 237.

^{144.} Hanks & Hanks, An Environmental Bill of Rights: The Citizen Suit and the National Environmental Policy Act of 1969, 24 RUTGERS L. REV. 230, 268 (1970).

Coupled with a duty to develop and maintain a harmonious relationship with nature is an obligation to provide future generations with a clean and healthy environment. The issues presented by such an obligation are: (1) the extent of this obligation; and (2) whether such an obligation is uniform for all future generations. Professor Annette Baier attempts to address these two questions. Concerning the nature of the obligation, she asserts:

Where we are in doubt whether a certain change for the worse is or is not irreversible, it would seem the prudent thing to suppose the worst.... Similarly with responsible thinking on behalf of future people — we should not *count* on their finding ways to detoxify what we are poisoning. The sacrifice required of us to stop the poisoning seems much less than the burden placed on them if we bet wrong on their ability to undo what we are doing. ¹⁴⁶

Baier does not contend, however, that the interests of all future generations should be considered equally. Instead, she explains that to people in the near future¹⁴⁷ "we owe . . . responsible planning, planning aimed at seeing not merely that they inherit basic resources 'as good' as ours, but also the means to get 'enough' of the divisible exhaustible goods we know they will need."¹⁴⁸ Whereas, to "all future people" the present generation is obligated "not knowingly to injure the common human interests [future people] like all [people] have — interests in a good earth and in a good tradition guiding us in living well on it without destroying its hospitability to human life."¹⁴⁹

An effective environmental policy based on obligations to the environment and to future generations cannot ignore, however, the fact that many of man's actions are motivated by self interest. Hence, the difficulty rests in developing a policy that can accommodate self interest without compromising man's duty to maintain a harmonious relationship with nature and to fulfill his obligation to future generations.

^{145.} But see, e.g., Baier, For the Sake of Future Generations, in Earthbound 214, 220-25 (T. Regan ed. 1984). Baier presents and then refutes, id. at 231-34, the classic argument against any obligation for future generations. The analysis against future obligation is founded on the paradox that for a hypothetical future person to seek redress for a wrong caused prior to his or her birth requires the future person to maintain the claim that they would be better off not being born. For example, employing this logic, a person A born into slavery and whose father was captured in state X and mother in state Z cannot assert that he has been wronged. To maintain such a claim requires that A believe that nonexistence is superior to existing in his present state, because, but for the enslavement of his parents, A would not exist.

^{146.} Id. at 240.

^{147.} Baier considers this group to include those future generations that are "close enough in time to us for their *particular* needs and abilities to be foreseeable, and for us to have control over how many of them there will be, what opportunities they will have, what supply problems they will face." *Id.* at 242.

^{148.} *Id.*

^{149.} Id. at 243.

Both Sagoff and Ehrenfeld confront this dilemma. Sagoff suggests that man is comprised of both a consumer and a citizen self with the former being motivated by "desires or wants" and the latter by "opinions or beliefs." Sagoff supports this view of our society by explaining that many of our environmental laws such as the Endangered Species Act¹⁵¹ and the Federal Water Pollution Control Act¹⁵² cannot be justified using an economic efficiency analysis. (NEPA, too, could be added to Sagoff's list.) Sagoff recognizes that "[o]ur environmental laws illustrate that we are governed by legislatures, not by markets." These laws are the products of citizen selves expressing community convictions within an autonomous, democratic society. Although under this view economic efficiency and markets cannot be used to make policy decisions, Sagoff does recognize that benefit-cost analysis "may play a useful role in supplementing or informing political decision making." It is a tool rather than a policymaking rule.

Ehrenfeld suggests a system that maintains the distinction between the citizen and consumer selves, as defined by Sagoff, while permitting the limited use of benefit-cost analysis. His balancing scheme satifies man's selfish needs without compromising man's obligation to nature. Ehrenfeld asserts that "[s]elfishness, within bounds" or decisions founded on utilitarian principles are "necessary." But, he notes that when humanistic and non-humanistic values conflict, humanistic values must be set aside. Humanistic values should yield to non-humanistic values because "[r]esource reasons for conservation can be used if honest, but must always be presented together with the non-humanistic reasons, and it should be made clear that the latter are more important in every case." 159

If NEPA were applied in a manner consistent with duty-based environmentalism, it would provide an effective means of ensuring responsible use and protection of Alaska's unique physical and biological endowment. NEPA's ability to serve as the basis for a Land or ecological ethic, however, is contingent upon its (1) language and

^{150.} Sagoff, supra note 121, at 1411, discussed supra notes 121-25 and accompanying text.

^{151. 16} U.S.C. §§ 1531-1543 (1982 & Supp. III 1985).

^{152. 33} U.S.C. §§ 1251-1376 (1982 & Supp. III 1985).

^{153.} Sagoff, supra note 121, at 1399.

^{154.} Id. at 1409.

^{155.} See supra note 113 and accompanying text.

^{156.} D. EHRENFELD, supra note 132, at 210.

^{157.} A species' value to man.

^{158.} A species' inherent, "unimpeachable right to continued existence." D. EHRENFELD, supra note 132, at 207-08.

^{159.} Id. at 210.

structure and (2) administrative and judicial interpretations and applications.

IV. NATIONAL ENVIRONMENTAL POLICY ACT

NEPA is one of the most important, yet among the shortest and simplest environmental statutes enacted. It is "action forcing," but neither technology forcing 162 nor standard setting, 163 as are other major environmental statutes. In its brief history, however, NEPA has dramatically affected governmental decisionmaking. Before NEPA's enactment, governmental management was principally based on economic considerations. As Daniel Dreyfus and Professor Helen Ingram observed, prior to NEPA:

An essential objective of government throughout the history of the [United States] had been to promote economic growth. Early frontier expansionism had been replaced by the progressive conservation ethic of the 1900's, which espoused wise use of natural resources. Sustained yield and public stewardship had replaced exploitation, but the goal of management, both public and private, was still economic gain. Even the preservationists of the 1950's and 1960's did not challenge the ascendency of economics as it applied to most issues. They simply maintained that some places had a very great value which was difficult to quantify.

The idea incorporated in the policy statement of NEPA that valuable economic opportunity might in some instances be foregone

^{160.} Professor William Rodgers considers NEPA the "Sherman Act of environmental law," W. Rodgers, Environmental Law 697 (1977), and in 1976, Richard Liroff characterized NEPA as "the most sweeping environmental law ever enacted by a United States Congress." R. LIROFF, A NATIONAL POLICY FOR THE ENVIRONMENT: NEPA and its Aftermath 3 (1976).

^{161.} S. Rep. No. 296, 91st Cong., 1st Sess., pt. 14, at 19-21 (1969) (section analysis of section 102); *accord* Andrus v. Sierra Club, 442 U.S. 347, 350-51 (1979); Kleppe v. Sierra Club, 427 U.S. 390, 409-10 (1976).

^{162.} Examples of technology forcing environmental statutes include section 301(b)(2)(A) of the Federal Water Pollution Control Act, 33 U.S.C. § 1311(b)(2)(A) (1982) ("FWPCA") (best available technology requirements), section 301(k) of the FWPCA, 33 U.S.C. § 1311(k) (1982), and section 202(a)(3)(A)(i) of the Clean Air Act, 42 U.S.C. § 7521(a)(3)(A)(i) (1982) ("CAA") (emission standards for new motor vehicles or new motor vehicle engines).

^{163.} Examples of standard setting environmental statutes include sections 108-9 of the CAA, 42 U.S.C. §§ 7408-09 (1982) (national primary and secondary ambient air quality standards), and section 303 of the FWPCA, 33 U.S.C. § 1313 (1982) (water quality standards and state implementation plans).

^{164.} See generally W. RODGERS, supra note 160, at 704 ("[NEPA] is tectonic legislation affecting relationships of governmental institutions in many subtle ways."); Andrews, supra note 62, at 301 (while important, NEPA's impact on agencies is not uniform); Rabin, Federal Regulation in Historical Perspective, 38 STAN. L. REV. 1189, 1287 (1986). But see Sax, The (Unhappy) Truth About NEPA, 26 OKLA. L. REV. 239 (1973); Strohbehn, supra note 13, at 104 (unless changed, NEPA will "have only a limited impact on agency decisionmaking, particularly at policy levels").

in order to achieve an environmental goal was a significant shift of policy premises. 165

At the very least, NEPA's substantive and procedural mandates influence governmental decisionmaking by requiring the consideration of environmental effects along with economic factors prior to engaging in any "major Federal actions significantly affecting the quality of the human environment." The following analysis of NEPA and its legislative history, however, demonstrates that Congress intended the statute to require more than merely adding environmental concerns to the decisionmaking calculus. NEPA's underlying substantive goals suggest that Congress intended environmental factors to be given a priority over other factors. This view of NEPA is not only the one that Congress espoused, but it is also the interpretation that must be adopted and enforced if Alaska's natural resources are to be protected from irresponsible and excessive governmental activities.

A. NEPA and Its Legislative History

The substantive goals underlying NEPA's procedural mandate (section 102) are contained primarily in section 101 of the Act and are further explained in its legislative history. Section 101 professes to

The policies and goals set forth in section 101 can be implemented if they are incorporated into the ongoing activities of the Federal Government in carrying out its responsibilities to the public. In many areas of Federal action there is no body of experience or precedent for substantial and consistent consideration of environmental factors in decisionmaking. In some areas of Federal activity, existing legislation does not provide clear authority for the consideration of environmental factors which conflict with other objectives.

To remedy present shortcomings in the legislative foundation of existing programs, and to establish action-forcing procedures which will help to insure that the policies enunciated in section 101 are implemented, section 102 authorizes and directs

^{165.} Dreyfus & Ingram, The National Environmental Policy Act: A View of Intent and Practice, 16 NAT. RESOURCES J. 243, 245 (1976); accord R. LIROFF, supra note 160, at 81 ("NEPA was a comprehensive attack on narrow agency decision-making schemas. Its goal was to overhaul fundamentally an incremental decision-making process in which the pursuit of narrow economic goals had obscured the need to weigh environmental impact.").

^{166. 42} U.S.C. § 4332(2)(C) (1982).

^{167.} In considering the nature of the substantive goals underlying section 102(2)(C), it is appropriate to consider the substantive goals of section 101. First, section 102(1) expressly provides that the policies established in section 101 and other sections within the chapter should apply. Section 102(1) provides that "the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this chapter . . . " 42 U.S.C. § 4332(1), discussed supra note 62 and accompanying text. Furthermore, the Senate Committee on Interior and Insular Affairs, in reference to the purpose of section 102, explained:

S. Rep. No. 296, 91st Cong., 1st Sess., pt. 14, at 19 (1969); accord infra note 208 and accompanying text. Second, unless a reviewing court is considering the validity of an

establish a national environmental policy intended to create and maintain "conditions under which man and nature can exist in productive harmony." ¹⁶⁸ Specifically, section 101 provides:

(a) The Congress, recognizing the profound impact of man's activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances and recognizing further the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man, declares that it is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, [169] including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and

administrative agency's interpretation of a statute, the Court permits a wholistic approach to statutory construction, that is, an analysis of the entire Act, rather than an analysis of each section as an independent entity with its own legislative history, is appropriate. Compare International Paper Co. v. Ouellette, __ U.S. __, 107 S. Ct. 805, 812 (1987) (In determining whether FWPCA preempts common law, the Court explains: "Given that the Act itself does not speak directly to the issue, the Court must be guided by the goals and policies of the Act in determining whether it in fact preempts an action based on the law of an affected State.") with Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837, 842-43 (1984) (In reviewing an agency's construction of a statute, a court must first consider "whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress. If, however, the court determines Congress has not directly addressed the precise question at issue, the court does not simply impose its own construction on the statute, as would be necessary in the absence of an administrative interpretation. Rather, if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute." (emphasis added)).

- 168. 42 U.S.C. § 4331(a) (1982).
- 169. In section 101(b) Congress further defined the Government's responsibility to invoke "all practicable means" in fulfilling the policy objectives of the chapter. Section 101(b) provides:
 - (b) In order to carry out the policy set forth in this chapter, it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may
 - (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
 - (2) assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;
 - (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

other requirements of present and future generations of Americans. 170

Although section 101(a) applies only to governmental actions, Congress set forth an environmental policy goal for individuals as well. Section 101(c) provides: "The Congress recognizes . . . that each person has a responsibility to contribute to the preservation and enhancement of the environment." ¹⁷¹

The national environmental policy expressed by section 101 is founded on Congress' belief that: (1) man must establish a harmonious relationship with his environment; and (2) the present generation of Americans has an obligation to future generations in the form of an environmental trust. Utilitarianism cannot support such a policy. Instead, with NEPA Congress clearly intended to enact an environmental policy founded on duty-based environmentalism. As such it is a policy founded on a belief that man is dependent on his environment and that our exploitative policies have pushed us to the brink of destruction. Consequently, to ensure man's continued existence, we must develop and maintain a harmonious and protective relationship with the environment. Indeed, the Senate Committee on Interior and Insular Affairs¹⁷² clearly stated that such a view of the present state of affairs vis-à-vis man's relationship to the environment as well as present and future obligations provided the substantive base for the national environmental policy espoused in section 101. For example, the Senate Committee explained:

[Section 101(a)] is a declaration by the Congress of a national environmental policy. The declaration is based upon a congressional recognition of mankind's dependence upon his physical and biological surroundings for material goods and cultural enrichment. It is further based upon a recognition of the increasing pressures exerted upon the environment as a result of population growth, urbanization, industrial expansion, resource exploitation, and technological development.¹⁷³

⁽⁴⁾ preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;

⁽⁵⁾ achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

⁽⁶⁾ enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

⁴² U.S.C. § 4331(b) (1982).

^{170.} Id. § 4331(a) (emphasis added).

^{171.} Id. § 4331(c).

^{172.} S. REP. No. 296, 91st Cong., 1st Sess., pt. 14 (1969).

^{173.} Id. at 17. The conference substitute, which was enacted, retained the "national goals of environmental policy specified in the Senate bill" in the new section

After thoroughly discussing the purpose, ¹⁷⁴ legislative history, ¹⁷⁵ state of the environment, ¹⁷⁶ and the proposed bill's relationship to existing policies and institutions, ¹⁷⁷ the Committee provided the following summary of its motivation in drafting a national environmental policy and its understanding of the policy's effect on the nation's economic interests:

Natural beauty, increased recreational opportunity, urban esthetics and other amenities would be important byproducts of a national environmental policy. . . . But the compelling reasons for a national policy are more deeply based. The survival of man in a world in which decency and dignity are possible, is the basic reason for bringing man's impact on his environment under informed and responsible control. . . . In our management of the environment we have exceeded its adaptive and recuperative powers, and in one form or another we must now pay directly the costs of maintaining air, water, soil, and living space in quantities and qualities sufficient to our needs. . . . Today we have the option of channeling some of our wealth into the protection of our future. If we fail to do this in an adequate and timely manner, we may find ourselves confronted, even in this generation, with an environmental catastrophe that could render our wealth meaningless and which no amount of money could ever cure.178

It is clear from the language of section 101 and its legislative history that Congress intended to enact an environmental policy that would ensure the establishment and maintenance of a harmonious relationship between man and nature. Furthermore, it appears that while in the implementation of this national environmental policy economic factors should be considered, they should not govern resulting decisions.¹⁷⁹ Although Congress did not preclude the consideration of economic factors in establishing and maintaining "conditions under which man and nature can exist in productive harmony,"¹⁸⁰ the language and history indicate that Congress considered environmental factors to be paramount. At most, Congress meant for cost efficiency principles to be a decisionmaking tool.¹⁸¹

Whether NEPA can be viewed as embodying an environmental policy founded on duty-based environmentalism is as much a product

¹⁰¹⁽b). H.R. CONF. REP. No. 765, 91st Cong., 1st Sess., 8, reprinted in part in 1969 U.S. CODE CONG. & ADMIN. NEWS 2767, 2768.

^{174.} S. REP. No. 296, 91st Cong., 1st Sess., pt. 14, at 8-10 (1969).

^{175.} Id. at 10-13.

^{176.} Id. at 13-17.

^{177.} Id. at 17-20.

^{178.} Id. at 17.

^{179.} See, e.g., 40 C.F.R. § 1502.23 (1987), discussed infra notes 198-200 and accompanying text.

^{180. 42} U.S.C. § 4331(a) (1982).

^{181.} See supra note 113 and accompanying text.

of its judicial and administrative interpretation as it is of the language employed by Congress. Therefore, to determine if NEPA will ensure that government activity is conducted in a manner preserving the integrity of Alaska's physical and biological resources, the Act's judicial and administrative applications must be considered.

V. ADMINISTRATIVE AND JUDICIAL APPLICATION OF NEPA

Although Congress based the environmental policy contained in section 101 on duty-based environmentalism, application of NEPA's substantive goals has been, at best, inconsistent. A comparison of the EIS guidelines promulgated by the Council on Environmental Quality ("CEQ") and the federal courts' application of NEPA illustrates this inconsistency. This Section first discusses CEQ's guidelines, which: (1) federal agencies completing an EIS must follow; (2) reflect a view that NEPA is not merely procedural; and (3) support this author's interpretation that the precept underlying NEPA's substantive goals is duty-based environmentalism.

Second, this Section analyzes the federal courts' application of NEPA. focusing on the Supreme Court's decision in Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc. 182 and the underlying appellate and district court decisions. Having discussed Baltimore Gas, which this author interprets to be based on a view that NEPA is "essentially procedural," 183 the Court's decision is modified by this author to reflect an opinion founded on: (1) a view that NEPA is essentially substantive and based on environmentally-conscious utilitarianism; and (2) a belief that NEPA is essentially substantive and founded on duty-based environmentalism. This analysis illustrates the consequences of a shift in judicial interpretation of NEPA that is reflected in the Court's holdings in Amoco Production Co. v. Village of Gambell 184 and Motor Vehicle Manufacturers' Association v. State Farm Mutual Automobile Insurance Co. 185 As demonstrated, the effect of such a shift is further amplified by whether the precept underlying NEPA is one that is utilitarian- or environmentally-based.

A. Administrative Interpretation of NEPA

In addition to enacting an environmental policy and a scheme necessary to implement the policy, Congress also created the CEQ. 186 Among its numerous responsibilities and pursuant to Executive Order,

^{182. 462} U.S. 87 (1983).

^{183.} See infra notes 245-248 and accompanying text.

^{184.} ___ U.S. ___, 107 S. Ct. 1396 (1987), discussed *supra* notes 52-89 and accompanying text.

^{185. 463} U.S. 29 (1983), discussed supra notes 41-51 and accompanying text.

^{186. 42} U.S.C. §§ 4341-4347 (1982).

the CEQ has the authority to promulgate guidelines for EIS preparations.¹⁸⁷ Initially, these guidelines were merely advisory, but in 1977 President Jimmy Carter ordered federal agencies to comply with the CEQ regulations when preparing EIS's.¹⁸⁸

The regulations promulgated by the CEQ underscore Congress' intent to establish an environmental policy designed to protect the environment and establish a harmonious relationship between man and nature. In interpreting the purpose of the Act, the CEQ explained:

[NEPA] is our basic national charter for protection of the environment. It establishes policy, sets goals (section 101), and provides means (section 102) for carrying out the policy. Section 102(2) contains "action forcing" provisions to make sure that federal agencies act according to the letter and spirit of the Act. . . . The President, the federal agencies, and the courts share responsibility for enforcing the Act so as to achieve the substantive requirements of section $101.^{189}$

The CEQ's view of NEPA differs from that of the courts. Rather than emphasizing NEPA's procedural mandate (section 102) as do the courts, ¹⁹⁰ the CEQ considers the procedural mandate to be merely a means for achieving NEPA's substantive goals. There is no indication that the CEQ considers NEPA to be "essentially procedural." Instead, the "NEPA process," as the CEQ sets forth, "is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment." This view of the process—NEPA's procedural mandate—is in accord with the Supreme Court's interpretation of the procedures contained in the FWPCA¹⁹² and ANILCA¹⁹³ and dissimilar from that attributed to NEPA by the Supreme Court and the Ninth Circuit. ¹⁹⁴

^{187.} See Exec. Order No. 11,514 3 C.F.R. § 902 (1966-70) (order issued March 5, 1970 in which section 3(h) authorized the CEQ to issue guidelines to federal agencies for preparation of EIS's under NEPA 102(2)(C)).

^{188.} Exec. Order 11,991, 3 C.F.R. § 123 (1978) (order issued May 24, 1977 amending sections 2(g) and 3(h) of Executive Order 11,514; thereby granting the CEQ the authority to issue mandatory regulations for the implementation of NEPA section 102(2)(C)).

^{189. 40} C.F.R. § 1500.1(a) (1987).

^{190.} See, e.g., cases cited supra note 13.

^{191. 40} C.F.R. § 1500.1(c) (1987).

^{192.} Weinberger v. Romero-Barcelo, 456 U.S. 305, 314 (1982) ("The integrity of the Nation's waters, however, not the permit process, is the purpose of the FWPCA.").

^{193.} Amoco Prod. Co. v. Village of Gambell, __ U.S. __, 107 S. Ct. 1396, 1403 (1987) ("Like the First Circuit in *Romero-Barcelo*, the Ninth Circuit erroneously focused on [ANILCA's] procedure rather than on the underlying substantive policy the process was designed to effect").

^{194.} See cases cited supra note 13.

Not only does the CEQ's view of NEPA's structure conflict with that of the Court's, but its view of NEPA's substantive mandate (to the extent that *Baltimore Gas* is founded on NEPA's substantive mandate)¹⁹⁵ seems to differ as well. Contrary to the Court's interpretation that NEPA merely requires a generic balancing of environmental harms and benefits with other relevant harms and benefits,¹⁹⁶ the CEQ's guidelines view NEPA as an Act designed to protect the environment. The CEQ explains that, "to the fullest extent possible," federal agencies, "shall" [u]se all practicable means, consistent with the requirements of the Act and other essential considerations of national policy, to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions upon the quality of the human environment.¹⁹⁷ This language is in accord with the enforcement of an environmental policy based on duty-based environmentalism.

Furthermore, to the extent that "cost-benefit analysis [is] relevant to the choice among environmentally different alternatives," ¹⁹⁸ the CEQ requires that it "shall be incorporated by reference or appended to the statement as an *aid* in evaluating the environmental consequences." ¹⁹⁹ The CEQ considers benefit-cost analysis to be used under NEPA as a decisionmaking tool, as is consistent with a duty-based environmental policy, and not a decisionmaking rule, as under an environmental policy based on environmental-conscious utilitarianism. The CEQ further substantiates this role for benefit-cost analysis by explaining: "For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations." ²⁰⁰

In addition to being mandatory, the Supreme Court and the Ninth Circuit have held that the "CEQ's interpretation of NEPA is entitled to substantial deference."²⁰¹ Unfortunately, neither the Supreme Court nor the Ninth Circuit have looked to the CEQ's interpretation of NEPA's substantive goals when determining whether an EIS or an administrator's actions pursuant to an EIS comply with

^{195.} See infra notes 245-48 and accompanying text.

^{196.} See Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 97 (1983), discussed *infra* notes 245-48 and accompanying text.

^{197. 40} C.F.R. § 1500.2(f) (1987).

^{198.} Id. § 1502.23.

^{199.} Id. (emphasis added).

^{200.} Id.

^{201.} Andrus v. Sierra Club, 442 U.S. 347, 358 (1979); accord California v. Block, 690 F.2d 753, 763 (9th Cir. 1982); Village of False Pass v. Watt, 565 F. Supp. 1123, 1149 (D. Alaska 1983), aff'd, 733 F.2d 605 (9th Cir. 1984).

NEPA's mandate. In Village of False Pass v. Watt. 202 the United States District Court for the District of Alaska relied heavily on the CEQ's regulations in its determination that the EIS did not adequately consider the dangers to whales associated with preliminary seismic activity. The court explained: "Although the rule of reason determines the adequacy of an environmental impact statement, [the CEO] regulations are also guides for determining its sufficiency."203 Despite this rhetoric, the court did not measure the adequacy of the EIS against NEPA's substantive goals set forth in section 101 of the Act and interpreted in the CEO regulations. Instead, the court confined its review to whether the EIS complied with NEPA's procedural mandate.²⁰⁴ Consequently, although the CEQ regulations acknowledge NEPA's substantive goals as its essence and the courts claim that these regulations are entitled to substantial deference, the courts' view that NEPA is "essentially procedural" effectively requires a reviewing court to ignore the Act's substantive goals and those regulations promulgated by the CEQ that interpret and apply NEPA's substantive mandate.

B. Judicial Interpretation and Application of NEPA

Despite the clarity of the national environmental policy drafted by Congress and its subsequent interpretation by the CEQ, NEPA has neither been interpreted nor applied as a policy based on principles of environmentalism. NEPA has not been viewed to be an "Environmental Bill of Rights"²⁰⁵ or even as a full disclosure law favoring environmental concerns.²⁰⁶ Furthermore, when called upon to interpret NEPA, the Supreme Court and the the Ninth Circuit have emphasized its procedural nature while effectively ignoring its substantive goals.²⁰⁷

^{202. 565} F. Supp. 1123, 1144-45, 1149 (D. Alaska 1983), aff'd, 733 F.2d 605 (9th Cir. 1984).

^{203.} Id. at 1144.

^{204.} Id. at 1151-52.

^{205.} In 1970, Professors Eva and John Hanks described NEPA in the following terms: "In form, [NEPA] is a statute; in spirit a constitution." Hanks & Hanks, supra note 144, at 245. After analyzing NEPA and its legislative history, id. at 244-69, they conclude that NEPA "could well become our Environmental Bill of Rights." Id. at 269.

^{206.} See, e.g., Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 97 (1983); Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227 (1980).

^{207.} See supra notes 13-25 and accompanying text; see generally Goldsmith & Banks, supra note 14, at 12 (authors conclude that when read merely as a generic "full disclosure" law, "NEPA does not require federal agencies to protect the nation's environment, but simply instructs them to take whatever action they please as long as they keep their eyes open to the environmental consequences.")

To hold that NEPA is merely a procedural statute that requires nothing more than a generic balancing process undermines NEPA's substantive mandate in two ways. First, it ignores NEPA's structure — section 102 is dependent on section 101.²⁰⁸ Section 102 merely implements the national environmental policy established by section 101; consequently, by emphasizing NEPA's procedural mandate over its substantive goals, the courts wrongly disregard the importance of the national environmental policy set forth in NEPA's substantive goals.²⁰⁹ This error inherent in viewing NEPA as "essentially procedural," and thereby effectively ignoring the Act's substantive goals, is further supported by the statutory construction employed by the Supreme Court in Weinberger v. Romero-Barcelo 210 and Amoco Production Co. v. Village of Gambell.211 Second, the Court's interpretation that environmental factors should be weighed equally with other factors contravenes NEPA's environmental policy, which is founded on duty-based environmentalism.

These two impacts of the Court's interpretations and applications of NEPA can best be illustrated by analyzing the Court's most recent NEPA decision, Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc., 212 and then demonstrating how the opinion would have differed had the Court considered NEPA's (1) procedural mandate to be subordinate to its substantive goals, and (2) substantive goals to require environmental considerations to be given priority over other factors. Because the judicial interpretation and application of NEPA in the Ninth Circuit echoes that of the Supreme Court, such a shift in the judicial construction of NEPA would have a similar effect in the Ninth Circuit. Consequently, such a shift would restore the importance of the CEQ's guidelines and ensure that NEPA would not be viewed as merely a generic full disclosure law. NEPA could then be employed as it should be — as a national environmental policy requiring federal activities to be consistent with the establishment and

^{208. 42} U.S.C. § 4332 (1980), discussed *supra* note 62 and accompanying text; *see also* United States v. Students Challenging Regulatory Agency Procedures (SCRAP), 412 U.S. 669, 693 (1973); 40 C.F.R. § 1500.1(a) (1987) (CEQ mandatory EIS guidelines), discussed *supra* notes 189-90 and accompanying text; Andrews, *supra* note 62, at 301-02; Liebesman, *supra* note 62, at 50,039-40; Peterson, *supra* note 62, at 50,040; Note, *supra* note 62, at 367-68.

^{209.} This is precisely what the Supreme Court held with regard to section 810(a) of ANILCA in Amoco Prod. Co. v. Village of Gambell, __ U.S. __, 107 S. Ct. 805 (1987).

^{210. 456} U.S. 305, 314-15 (1982), discussed supra notes 55-58 and accompanying text.

^{211.} __ U.S. __, 107 S. Ct. 1396, 1403 (1987), discussed *supra* notes 58, 74-77 and accompanying text.

^{212. 462} U.S. 87 (1983).

maintenance of a harmonious relationship between man and Alaska's awesome, yet fragile environment.

Baltimore Gas & Electric Co. v. Natural Resources Defense Council. Inc. Baltimore Gas²¹³ represents the culmination of a twelve year dispute between the Natural Resources Defense Council, Inc. ("NRDC") and the Nuclear Regulatory Commission ("Commission"). At the heart of the controversy lies the decisions of the Atomic Safety and Licensing Board ("Board"), the Atomic Safety and Licensing Appeal Board ("Appeal Board"), and the Commission concerning the environmental effects resulting from the disposal of uranium fuelcycle wastes. In 1971, the Board rejected the NRDC's attempt to have the environmental effects of nuclear wastes considered in the Board's decision whether to grant an operating license to Vermont Yankee Nuclear Power Station.²¹⁴ In June 1972, the Appeal Board affirmed the Board's decision.²¹⁵ Subsequently, the Commission initiated rulemaking procedures to promulgate rules concerning "whether, and if so, how, it should consider the environmental impact of the fuel-cycle as it continued licensing nuclear facilities."²¹⁶ On April 16. 1974, the Commission adopted Table S-3, which designated numerical values representing the environmental effects of the uranium fuelcycle.²¹⁷ Additionally, the ruling amended the Commission's NEPA regulations, thereby enabling consideration of the uranium fuel-cycle's environmental effects for individual light water reactors to be satisfied by including Table S-3 in an EIS.²¹⁸ Moreover, the Commission concluded that if Table S-3 was included in an EIS, then "no further discussion of such environmental effects shall be required."219

The NRDC, challenged, *inter alia*, the Commission's rule concerning Table S-3 and its use in the NEPA process. The United States Court of Appeals for the District of Columbia reversed and remanded the Table S-3 Rule and its application in the granting of an operating

^{213.} Id.

^{214.} Natural Resources Defense Council, Inc. v. United States Nuclear Regulatory Comm'n, 685 F.2d 459, 468 (D.C. Cir. 1982) ("NRDC II"), rev'd sub nom. Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87 (1983).

^{215.} Id.

^{216.} Id. at 469.

^{217.} Id. Specifically, Table S-3, as explained by the Supreme Court, was "a numerical compilation of the estimated resources used and effluents released by fuel cycle activities supporting a year's operation of a typical light-water reactor." Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 91 (1983).

^{218.} NRDC II, 685 F.2d at 469.

^{219.} Id. (citing 39 Fed. Reg. 14,191 (1974)).

license to Vermont Yankee Nuclear Power Station.²²⁰ The court opined that the record supporting the Table S-3 Rule was insufficient,²²¹ and that the procedures used by the Commission in promulgating the Rule were, in part, inadequate.²²² In Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.,²²³ the United States Supreme Court then reversed the appellate court's decision concerning the Commission's Table S-3 Rule. The Court reasoned that the courts could not require the administrative agencies to employ additional procedures during informal rulemaking, if those used met the "statutory minima, a matter about which there [was] no doubt in this case."²²⁴ The Court, however, remanded the question concerning whether "the challenged rule [found] sufficient justification in the administrative proceedings that it should be upheld by the reviewing court."²²⁵

On remand before the United States Court of Appeals for the District of Columbia, the NRDC presented a two-pronged challenge to the Table S-3 Rules. The NRDC first asserted that "the original, interim and final versions of the Table S-3 Rule [were] arbitrary and capricious and not in accordance with NEPA because they preclude[ed] proper consideration and disclosure of uncertainties that underl[ay] the Table's numerical values."²²⁶ Second, the NRDC alleged that the original and interim Table S-3 Rules were arbitrary and capricious.²²⁷ Furthermore, because they barred adequate consideration and disclosure of the actual environmental effects that nuclear power plant waste would cause, the Table S-3 Rules violated section 102 of NEPA.²²⁸ The court held:

[T]he Table S-3 Rules [were] arbitrary and in violation of NEPA because they fail[ed] to allow for consideration of uncertainties underlying the assumption that no radiological effluents [would] be released into the biosphere once wastes [were] sealed in a permanent repository. . . . [T]he original Rule and the interim Rule, prior to amendment, [were] arbitrary and in violation of NEPA in their failure to allow consideration of health, socioeconomic, and cumulative effects of fuel-cycle activities.²²⁹

^{220.} Natural Resources Defense Council, Inc. v. United States Nuclear Regulatory Comm'n, 547 F.2d 633, 653-54 (D.C. Cir. 1976) ("NRDC I"), rev'd sub nom. Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519 (1978).

^{221.} Id. at 654.

^{222.} Id. at 647-52.

^{223. 435} U.S. 519 (1978).

^{224.} Id. at 548.

^{225.} Id. at 549.

^{226.} NRDC II, 685 F.2d at 477.

^{227.} Id.

^{228.} Id.

^{229.} Id. at 477-78.

In considering the Commission's conclusion that no radiological effluents would be released into the environment from a sealed permanent repository,²³⁰ the court reviewed the factual record and the Commission's reasoning supporting this zero-level release assumption from two reference points. First, the court evaluated zero-level release as if it were the product of a factual finding of no significant risk.²³¹ As such, the court determined that the zero-level release assumption had no factual support. It reasoned that the Commission's judgment was clearly erroneous, because, despite the fact that the Commission admitted and the record reflected that considerable technological and institutional uncertainty existed concerning the ability to construct and maintain the requisite facility, the Commission had "based its zerorelease assumption on a prediction that technology would be developed by which to isolate long-lived wastes from the biosphere indefinitely."232 This uncertainty, the court concluded, rendered the Commission's zero-release assumption arbitrary and capricious.²³³

Second, the court considered the zero-release assumption as a decisionmaking rule and likewise found it wanting. The court did not conclude, however, that the zero-release assumption was arbitrary and capricious. Instead, it found that, if used as a decisionmaking rule, the zero-release assumption violated NEPA.²³⁴ The court reasoned that although "an agency in the position of the Commission [was] free to implement NEPA through generic rulemaking,"²³⁵ the generic rulemaking must permit an agency to consider all environmental costs when determining whether to proceed with a "major Federal action[] significantly affecting the quality of the human environment."²³⁶ "The zero-release assumption, however, exclude[d] from [licensing boards']

^{230.} The zero-release assumption — the assumption "that radiological effluents from solidified high-level and transuranic wastes would have no effect on the environment once sealed in a federal repository," id. at 474 — was present in the original, interim, and final versions of the Table S-3 Rule. Id. at 468-75.

^{231.} Id. at 480.

^{232.} Id.

^{233.} Id. at 481.

^{234.} Id. at 484.

^{235.} Id. at 482. The court further explained:

If certain types of environmental costs are common to a class of actions, NEPA does not require that an agency engage in duplicative and possibly inconsistent individual determinations, but allows it, in the alternative, to conduct a single rulemaking to determine generic values to be considered together with case-specific costs and benefits in individual proceedings. Similarly, if there are both costs and benefits in common to a class of individual actions, an agency is free, not only to determine generic values for those costs and benefits, but also to weigh the costs and benefits against each other to produce a generic "net value."

Id.

consideration of two [environmental] factors: 1) uncertainty concerning the integrity of the permanent repository, if such a repository [was] ever built; and 2) uncertainty over whether and when such a repository, or equivalent system of disposal, [would] be developed."²³⁷ The Commission's zero-release assumption was neither based on a "rule that the costs were insignificant, nor... that they were outweighed by generic benefits that would also be excluded from licensing boards' consideration,"²³⁸ but rather from the Commission's determination that "licensing decisions should be made on the basis of cost-benefit analyses that omitted the costs represented by those uncertainties."²³⁹ The court found, therefore, that the Commission's ruling "directly contravened NEPA's requirement that environmental costs be considered 'at every stage where an overall balancing of environmental and nonenvironmental factors [was] appropriate."²⁴⁰

The NRDC also challenged the original and interim Table S-3 Rules because they precluded the consideration and disclosure of the health, socioeconomic, and cumulative impacts of the fuel-cycle activities.²⁴¹ The court agreed. Although the original and interim Rules contained calculations depicting the fuel-cycle's environmental impacts in terms of the "quantity of land, water, and energy used, and of heat, chemicals and radioactivity released,"²⁴² Table S-3 failed to show the "meaning of those impacts in terms of human health or other environmental values."²⁴³ The court, therefore, interpreted NEPA to require more than a mere disclosure of the fuel-cycle's consumptive needs and releases. Rather, as it explained, "it [was] not releases of curies that Congress wanted disclosed; it [was] the effects, or environmental significance, of those releases."²⁴⁴

In Baltimore Gas, the Supreme Court reversed the appellate court's decision in NRDC II. Prior to deciding the merits, the Court considered the nature of NEPA, explaining:

NEPA has twin aims. First, it "places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action." Second, it ensures that the agency will inform the public that it has indeed considered environmental concerns in its decisionmaking process. Congress in enacting NEPA, however, did not require agencies to elevate environmental concerns over other appropriate considerations. Rather, it required only that

^{237.} NRDC II. 685 F.2d at 483.

^{238.} Id. at 483.

^{239.} Id.

^{240.} Id. (quoting Calvert Cliffs' Coordinating Comm., Inc. v. United States Atomic Energy Comm'n, 449 F.2d 1109, 1118 (D.C. Cir. 1971).

^{241.} Id. at 486-87.

^{242.} Id. at 486.

^{243.} Id.

^{244.} Id. at 487.

the agency take a "hard look" at the environmental consequences before taking a major action. The role of the courts is simply to ensure that the agency has adequately considered and disclosed the environmental impact of its actions and that its decision is not arbitrary and capricious.²⁴⁵

The implication of the Court's interpretation of NEPA's goals—an interpretation also adopted in the Ninth Circuit²⁴⁶— are twofold. First, its findings that NEPA "places upon an agency the obligation to consider . . ." and "ensures that an agency will inform . . . that it has indeed considered . . ."²⁴⁷ constitute a determination that NEPA's essence is its procedural mandate. Under this view, NEPA is merely a generic full disclosure law void of a substantive mandate to protect the environment. In short, the Court's decision perpetuates the view that NEPA is "essentially procedural."²⁴⁸

Second, because the Court finds that NEPA's substance is its procedure, it is resigned to employing an extremely deferential scope of review. Although in *Baltimore Gas* the Court describes its role in a manner similar to the one it assumed in *Motor Vehicle Manufacturers Association v. State Farm Mutual Automobile Insurance Co.*, ²⁴⁹ the difference in the actual review conducted is shocking. ²⁵⁰ *State Farm* is generally considered the apex of judicial scrutiny, ²⁵¹ whereas *Baltimore Gas* has been viewed as an example of extreme judicial deference. ²⁵² This result can be attributed to the Court's construction of

^{245.} Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 97-98 (1983) (citations omitted) (emphasis added).

^{246.} See, e.g., Sierra Club v. Clark, 774 F.2d 1406, 1411 (9th Cir. 1985); Forelaws on Board v. Johnson, 743 F.2d 677, 686 (9th Cir. 1985), cert. denied, __ U.S.__, 106 S. Ct. 3293 (1986).

^{247.} Baltimore Gas, 462 U.S. at 97.

^{248.} See, e.g., Note, supra note 48, at 863-65. But see Weinstein, supra note 48, at 865-83.

^{249. 463} U.S. 29 (1983), discussed supra notes 41-46.

^{250.} Compare State Farm, 463 U.S. at 46-57 with Baltimore Gas, 462 U.S. at 97-106.

^{251.} See, e.g., Edwards, Judicial Review of Deregulation, 11 N. Ky. L. Rev. 229, 253-55 (1984); Garland, Deregulation and Judicial Review, 98 HARV. L. Rev. 505, 545-49 (1985); Shapiro & Levy, supra note 34, at 411, 423-25.

^{252.} See, e.g., Shapiro & Levy, supra note 34, at 432 n.215; Stever, Deference to Administrative Agencies in Federal Environmental, Health and Safety Litigation — Thoughts on Varying Judicial Application of the Rule, 6 W. New Eng. L. Rev. 35, 58-59 (1983); Note, supra note 48, at 860-64.

the two statutes involved.²⁵³ Had the Court considered NEPA's substantive goals to be those included in section 101, then, using the "rationalist model of judicial review,"²⁵⁴ its decision may have differed significantly from its actual decision described below.²⁵⁵

In determining that the zero-release assumption was reasonable, the Court found that three factors were particularly probative. First, the Commission intended to apply the assumption in limited circumstances and it was not adopted as a means to select the "most effective long-term waste disposal technology or develop site selection criteria." Second, the zero-release assumption was "but a single figure in an entire Table, which the Commission expressly designed as a risk-adverse estimate of the environmental impact of the fuel cycle." Third, because the Commission's decision was "within its area of special expertise, at the frontiers of science," and involved scientific determinations, "a reviewing court must generally be at its most deferential." 259

The Court then reviewed the facts and reasons underlying the zero-release assumption and concluded that "the zero-release assumption — a policy judgment concerning one line in a conservative Table designed for the limited purpose of individual licensing decisions — [was] within the bounds of reasoned decisionmaking."²⁶⁰ It held, therefore, that the assumption was neither arbitrary nor capricious. In so holding, the Court emphasized: (1) the limited purpose of the assumption; (2) the conservative nature of Table S-3, that is, when viewed in its entirety the "Table represented a conservative (i.e., inflated) statement of environmental impacts;"²⁶¹ and (3) the uncertainties involved in determining the environmental effects of long-term storage of high-level radioactive wastes coupled with the Commission staff's conclusion that the "[r]isks (probabilities times consequences)

^{253.} But see Shapiro & Levy, supra note 34, at 432 n.215 (Court's decision based on a view that the lower court erroneously focused on the result of the agency's decision rather than the reasoning — reasoning and not results are the focus of heightened scrutiny).

^{254.} See supra notes 42-45, 51 and accompanying text.

^{255.} See infra notes 269-77 and accompanying text.

^{256.} Baltimore Gas, 462 U.S. at 102.

^{257.} *Id.* at 102-03. The Court further reasoned that: "It is not unreasonable for the Commission to counteract the uncertainties in postsealing releases by balancing them with an overestimate of presealing releases. A reviewing court should not magnify a single line item beyond its significance as only part of a larger Table." *Id.* at 103 (footnote omitted).

^{258.} Id. at 103.

^{259.} Id.

^{260.} Id. at 105.

^{261.} Id. at 103.

inherent in the long term for geological disposal will . . . be small."²⁶² Furthermore, the Court appears to have given some weight to the fact that neither the NRDC challenged, nor the court of appeals decided, the reasonableness of the Commission's determination that "the probabilities favor[ed] the zero-release assumption, because the Nation is likely to develop methods to store the wastes with no leakage to the environment."²⁶³

Finally, the Court concurred with the appellate court's interpretation that NEPA requires more than listing environmental impacts in "technical terms." Nevertheless, the Court reversed the appellate court's determination that the original and interim Table S-3 Rules precluded a licensing board from using the technical terms contained in the Table to evaluate health, socioeconomic, and cumulative consequences of the fuel-cycle. 265

The Court's decision in Baltimore Gas is based entirely on NEPA's procedural mandate. Not once does the Court mention NEPA's underlying substantive goals. NEPA's "twin aims," 266 as explained by the Court, are founded solely in the Act's procedural mandate. In addition to ignoring NEPA's substantive goals, the Court's decision also is extremely deferential²⁶⁷ to the Commission's interpretation and application of NEPA. Hence, when coupled, these two aspects of the Court's analysis enabled it to determine that NEPA does not require the evaluation of environmental concerns over other factors and that the zero-release assumption was reasonable despite the uncertainty and risk presented by the long-term disposal of high-level radioactive and transuranic wastes. In fact, had it been based on the substantive goals of section 101 of NEPA, as the Court's recent decision in Amoco Production Co. v. Village of Gambell 268 would require, the scope of review employed by the Court would possibly have led to an opposite conclusion. The decision, however, would not have been a function of deference, but rather contingent upon whether the Court viewed NEPA's substance as utilitarian- or environmentally-based. The implications of these two possibilities are discussed below.

^{262.} Id. at 105.

^{263.} Id. at 98.

^{264.} Id. at 106-07.

^{265.} Id. at 107-08.

^{266.} Id. at 97, discussed supra notes 245-48 and accompanying text.

^{267.} See supra notes 250-52 and accompanying text.

^{268.} ___ U.S. ___, 107 S. Ct. 1396 (1987), discussed *supra* notes 52-89 and accompanying text.

2. Baltimore Gas Reconsidered.

a. NEPA's Substantive Mandate Considered to be Utilitarian-Based. If the Court had determined that NEPA's substantive goals were utilitarian-based, its decision would not have changed, provided it maintained its belief that NEPA did not require the elevation of environmental factors above relevant nonenvironmental considerations. Despite the NRDC II court's finding that the zero-release assumption precluded review of two environmental factors in the overall balancing process, 269 the Supreme Court's determination that the zero-release assumption was reasonable is consistent with a utilitarian-based environmental policy.

Particularly, two reasons provided by the Court in support of its decision satisfy an objective, benefit-cost methodology. First, as the Court explained, the overall nature of the Table was "conservative;" therefore, the undervaluation of environmental costs in one portion of Table S-3 was accounted for by overvaluation in another section of the Table. Environmentally neutral benefit-cost analysis will permit such gerrymandering. Second, the risks (probabilities times magnitude of the harm) were small, whereas benefits in terms of energy produced by nuclear power were great. This fact in itself overcomes any doubts associated with the uncertainties that plagued the *NRDC II* court.

b. NEPA's Substantive Mandate Considered to be Environmentally-Based. If, however, the Court had concluded that NEPA required environmental factors to be given a preference, then it should have affirmed the decision of the United States Court of Appeals for the District of Columbia. This result follows because the risk-side of the benefit-cost calculation would exceed any benefits realized. Furthermore, the mandate upon which the NRDC II court relied, namely that NEPA requires environment costs to be considered at "every stage where an overall balancing of environmental and nonenvironmental factors is appropriate," becomes non-negotiable when environmental factors warrant a preference. Hence, the Court's reliance on the overall "conservative" effect of the Table S-3 to justify the exclusion of several environmental costs underlying one of the calculations involved would be erroneous. The method employed by the

^{269.} See supra note 237 and accompanying text.

^{270.} See supra note 261 and accompanying text.

^{271.} Natural Resources Defense Council, Inc. v. United States, 685 F.2d 459, 483 (D.C. Cir. 1982) ("NRDC II"), rev'd sub nom. Baltimore Gas & Elec. Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87 (1983), discussed supra note 240 and accompanying text.

appellate court in NRDC II is representative of a benefit-cost balancing approach that provides a preference for environmental factors.²⁷²

Furthermore, the obligation to future generations would have warranted invalidating the zero-release rule. The safe disposal of high-level radioactive wastes is an obligation that the present generation has to all future people, as defined by Professor Annette Baier.²⁷³ This obligation exists because of the severity and long-term environmental effects associated with the release of high-level radioactive and transuranic wastes. Hence, the zero-release assumption, which is based on uncertainty and technological optimism, contravenes an environmental policy founded on duty-based environmentalism.

Second, the zero-release assumption contained in Table S-3 is founded on technological optimism and, therefore, is contrary to the establishment and maintenance of a productive harmony between man and the environment. As demonstrated in Section III, technological optimism and a harmonious relationship between man and the environment are incompatible, unless political and societal growth parallels technological development.²⁷⁴ The zero-release assumption contains no such coupling.

Third, the use of the generic zero-release rule as a decisionmaking rule eliminates citizen participation and precludes consideration of the assumption's viability as applied to particular power plant licensing. Hence, it prevents the consideration of citizen values and the convictions of the hypothetical community ("Z") in which a power plant, nuclear waste facility, or both, will be constructed. This result places the members of Z in the same predicament as those of Lewiston, New York.²⁷⁵ Because the decision underlying the disposal of the wastes was made on cost efficiency grounds, the residents of Lewiston, as Professor Mark Sagoff explains, were powerless in their citizen capacity. He reasons:

[T]he citizens of Lewiston, surrounded by dynamos, high tension lines, and nuclear wastes, are powerless. They do not know how to criticize power, resist power, or justify power — for to do so depends on making distinctions between good and evil, right and wrong, innocence and guilt, justice and injustice, truth and lies. These distinctions cannot be made out and have no significance within an emotive or psychological theory of value. To adopt this

^{272.} See supra notes 226-44 and accompanying text.

^{273.} Baier, supra note 145, at 243, discussed supra notes 146-49 and accompanying text.

^{274.} See supra notes 97-105 and accompanying text.

^{275.} Sagoff, At the Shrine of Our Lady Fatima, or Why Political Questions Are Not All Economic, in People, Penguins, and Plastic Trees 227, 227-28, 235-36 (D. VanDeVeer & C. Pierce eds. 1986) (Lewiston is a community that is adjacent to a site used by the military to dispose of Manhattan Project residues as well as other toxic substances.).

theory is to imagine society as a market in which individuals trade voluntarily without coercion. No individual, no belief, no faith has authority over them. To have power to act as a nation, however, we must be able to act, at least at times, on a public philosophy, conviction, or faith. We cannot replace with economic analyis the moral function of public law.²⁷⁶

Because the generic zero-release assumption precludes the participation of the citizens of Z, and because it is founded on technological optimism rather than community conviction or values, it too presents the Lewiston dilemma. Therefore, it is contrary to a duty-based environmental policy. For the above reasons, the Supreme Court would have affirmed the appellate court's decision in *NRDC II*.

This analysis illustrates the importance of the weight given to and the interpretation of NEPA's substantive mandate. When considered as "essentially procedural" and as requiring only a generic benefit-cost analysis, NEPA cannot achieve Congress' stated goal of establishing a harmonious relationship between man and nature. Furthermore, when viewed as a substantive Act based on utilitarian principles, the same result is attained. Only where NEPA's substantive mandate is interpreted to be environmentally-based and its broad sweeping substantive goals are considered above its procedural mandate can NEPA achieve the goals espoused in the national environmental policy enacted by Congress. This change in focus and interpretation is necessary if we are to protect Alaska's natural resources from irresponsible and unnecessary governmental activities "significantly affecting the quality of the human environment." 277

VI. CONCLUSION

NEPA attempts to establish an environmental policy based on the understanding that man must develop a harmonious relationship with the environment. Hence, pursuant to the above analysis, it would appear that if (1) the Amoco Production Co. Court's interpretation of section 810 of ANILCA is applied to section 102 of NEPA, and (2) the State Farm Court's scope of review is employed, then the Court's interpretation and application of NEPA section 102 in Baltimore Gas is erroneous. Baltimore Gas is wrongly decided because it (1) misconstrues the importance and nature of NEPA's underlying substantive goals, and (2) is too deferential to the Commission's decision to adopt the zero-release assumption. Furthermore, the Ninth Circuit's view that NEPA is "essentially procedural" is also erroneous.

^{276.} Id. at 235-36.

^{277. 42} U.S.C. § 4332(2)(C) (1982).

As this article demonstrates, such an application of Amoco Production Co. would have significant impacts on NEPA's interpretation and application. Benefit-cost analysis would become just a tool, rather than a policy-making rule.²⁷⁸ Although such an interpretation better fulfills NEPA's substantive goals, it would entail a radical restructuring of governmental decisionmaking. Furthermore, even if the courts were to apply Amoco Production Co. to NEPA and accept NEPA's underlying substance as being duty-based environmentalism, it is questionable whether such an interpretation would withstand congressional scrutiny. Congress could either (1) amend NEPA to mirror the Supreme Court's present view that NEPA is merely a generic benefitcost statute, or (2) exempt certain projects incapable of satisfying NEPA's substantive goals. Congress' exemption of the trans-Alaska oil pipeline from compliance with NEPA demonstrates its willingness to retreat from the national environmental policy espoused in NEPA where application of the Act jeopardizes the completion of an important federal project.279

Hence, legislation is not sufficient to secure the establishment and maintenance of a harmonious relationship between man and the environment; instead a set of value-based rules is needed that will stand the test of time and not be prone to tampering and redefinition with every change in the political majority. The equivalent of a Bill of Rights is necessary, because the success of a duty-based environmental policy is a function of its becoming a value-based one upon which all decisions affecting natural resources and the environment are made. Therefore, not until such a set of rules is adopted by the citizenry and man's relationship with nature changes from one predominantly utilitarianbased to one environmentally-based will man have committed himself to (1) preserving as well as morally using the earth's resources and (2) adopting an environmental policy compatible with his nature. If man is to assure his continued existence in a world where natural beauty and integrity are present — a world in which natural wonders such as those found in Alaska are preserved — he must adopt a policy founded on duty-based environmentalism.

^{278.} See supra note 113 and accompanying text.

^{279.} Faced with the potential of protracted litigation over the adequacy of the EIS completed for the trans-Alaska oil pipeline, Congress enacted the Trans-Alaska Pipeline Authorization Act, 43 U.S.C. §§ 1651-1655 (1982), thereby exempting the pipeline from any "further action under [NEPA]." Id. at § 1652(d). See generally The National Environmental Policy Act of 1969 and the Energy Crisis: The Road to Alaska, COLUM. J.L. & Soc. Probs. 265, 296-327 (1974).

