

NEPA at 40
Procedure or Substance

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I. INTRODUCTION

The National Environmental Policy Act of 1969¹ (NEPA) recognized in federal law the profound impact of man's activity on the interrelations of all components on the natural environment" and declared a comprehensive policy "to use all practicable means and measures, 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 other requirements of present and future generations." 42 USC § 4331(a). Today, we might describe this as a mandate to pursue development in a manner that is sustainable.

Before NEPA, "mission oriented" agencies often failed to consider the environmental consequences of their actions.² On its face, NEPA is a very simple statute with clearly stated goals.³ The entire statute could be summarized as containing two

1 National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852 (1970) (codified as amended at 42 U.S.C. §§ 4321-47 (2006)) [hereinafter NEPA].

2 RICHARD A. LIROFF, *A NATIONAL POLICY FOR THE ENVIRONMENT: NEPA AND ITS AFTERMATH* 13-14 (1976).

3 Nicholas C. Yost, *NEPA's Evolution: The Decline of Substantive Review, NEPA's Promise Partially Fulfilled*, 20 ENVTL. L. 533, 535

main goals: to prevent environment degradation caused by federal agency actions, and to force government to consider environmental factors in their planning and decision making.⁴

NEPA's substantive and procedural sections are found in Title I, sections 101-105. Section 101 includes the substantive goals of the legislation, outlining its purpose of integrating environmental policy into federal agency planning.⁵ Section 102(2)(C) establishes the requirement that agencies include a "report on proposals for . . . major Federal actions significantly affecting the quality of the human environment."⁶ Courts have interpreted this requirement broadly to include any federal action that significantly affects the environment, whether it be a federal program or a program delegated under

(1990). Yost described the statute as clear on its face and finding the drafters' intent to be "blunt, even alarming" in their declaration of a national policy. *Id.* See also NICHOLAS C. YOST, NEPA DESKBOOK (3rd ed. 2003).

4 See generally NICHOLAS C. YOST, NEPA DESKBOOK 5-7, 36, 55 (3rd ed. 2003).

5 NEPA § 101(a)-(c), 42 U.S.C. § 4331(a)-(c).

6 NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C)(i)-(v). Requiring "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." *Id.*

federal authority.⁷ The policies and goals outlined in NEPA apply to “[a]ll agencies of the Federal Government”⁸ and are “supplementary to those set forth in existing authorizations of Federal agencies.”⁹

II. THE DEVELOPMENT OF A NATIONAL ENVIRONMENTAL POLICY

A decade of legislative attempts to formulate a comprehensive environmental policy preceded the NEPA enactment. Legislators were seeking approaches to mitigate the environmental damaging effects of federal agency actions.¹⁰ Senator James Murray (D-Mont.), chair of the Senate committee on Interior and Insular Affairs, introduced a natural resources conservation policy bill in 1959, a forerunner of NEPA.¹¹

7 See 40 C.F.R. § 1508.18 (2008). CEQ Regulations define “major federal action” broadly, providing that “. . . Major reinforces but does not have a meaning independent of significantly.” *Id.* This issue has been litigated and includes actions where federal agencies ‘federalize’ state and private projects through a federal “nexus”. See DANIEL R. MANDELKER, *NEPA LAW AND LITIGATION* § 8:33 (1992 & Supp. 2008); *Nat’l Res. Def. Council v. Grant*, 341 F. Supp. 356, 366-67 (E.D.N.C. 1972).

8 NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C).

9 NEPA § 105, 42 U.S.C. § 4335.

10 115 CONG. REC. 30, 40416 (1969)(statements of Sen. Jackson) (seeking legislation with a “preventive and anticipatory basis”).

11 For an in depth review of S. 2549 see Terence T. Finn, *Conflict and Compromise: Congress Makes a Law, the Passage of the National Environmental Policy Act 9-33* (December 1973) (unpublished Ph.D. Dissertation, Georgetown University); For a brief discussion of S.

Throughout the early 1960s, legislation designed to address the environmental impacts of federal actions was introduced but failed to obtain the needed support for passage.¹² The final step toward NEPA came in 1968 with the House-Senate Joint Colloquium to Discuss a National Policy for the Environment¹³, out of which came a Congressional White Paper on a National Policy for the Environment.¹⁴

The legislative history of NEPA has been well documented, but a brief introduction may provide some insights into the reason the substantive-procedural dichotomy arose.¹⁵ In 1969 Congressman Dingell and Senator Jackson introduced separate bills that eventually would be merged to form NEPA.¹⁶ Senator Jackson, chair of the Senate Committee on Interior and Insular

2549 see MATTHEW J. LINDSTROM & ZACHARY A. SMITH, *THE NATIONAL ENVIRONMENTAL POLICY ACT: JUDICIAL MISCONSTRUCTION, LEGISLATIVE INDIFFERENCE, AND EXECUTIVE NEGLECT* 27-8 (2001).

12 An example of such failed legislation is Sen. Nelson's Ecological Research and Surveys Bill, S. 2282, introduced in 1965, which also included a council of environmental advisors.

13 STAFF OF S. COMM. ON INTERIOR AND INSULAR AFFAIRS AND H. COMM. ON SCIENCE AND ASTRONAUTICS, 90TH CONG., *JOINT HOUSE-SENATE COLLOQUIUM TO DISCUSS A NATIONAL POLICY FOR THE ENVIRONMENT* (Comm. Print 1968).

14 RICHARD A. CARPENTER, *CONGRESSIONAL WHITE PAPER ON A NATIONAL POLICY FOR THE ENVIRONMENT*. (Comm. Print 1968) (Submitted to Congress under the auspices of the S. Comm. on Interior and Insular Affairs and the H. Comm. on Science and Astronautics).

15 For in depth analysis on NEPA's legislative history, see Finn, *supra* note 11; LIROFF, *supra* note 2; See also RAY CLARK AND LARRY CANTER (EDS.), *ENVIRONMENTAL POLICY AND NEPA: PAST, PRESENT, AND FUTURE* 3-99 (1997).

16 S. 1075, 91st Cong., (1st Sess. 1969); H.R. 6750, 91st Cong., (1st Sess. 1969). For an exhaustive review of the development of these bills, see Finn, *supra* note 11 at 311-461.

Affairs, proposed S. 1075, the bill that would be the main vehicle for the final NEPA legislation. Congressman Dingell, chair of the House's Merchant Marine and Fisheries Committee proposed a similar version in the House as H.R. 6750.

Although both proposed a comprehensive national environmental policy with a council of environmental advisors, neither bill mentioned an environmental impact statement. This concept would be added later based on testimony by Lynton Caldwell at a committee hearing.¹⁷ The main purpose behind Caldwell's suggestion to require agencies to prepare an impact statement on their actions was to ensure compliance with NEPA's substantive goals.¹⁸ Caldwell referred to this as an "action-forcing" mechanism to ensure compliance with § 101 substantive goals.¹⁹ The drafters linked these two provisions through § 102(1), providing that "the policies, regulations, and public laws . . . shall be interpreted and administered in accordance with the policies set forth in this Act."²⁰

Another legislative change came in response to concerns from Senator Edmund Muskie, chair of the Air and Water Pollution

17 *National Environmental Policy: Hearings on S. 1075, S. 237, and S. 1752 Before Sen. Comm. on Interior and Insular Affairs*, 91st Cong., 1st sess., 116 (April 16, 1969). (statement of Lynton Caldwell) [hereinafter Caldwell Testimony].

18 *Id.* at 116-8; see LINDSTROM AND SMITH, *supra* note 11 at 39.

19 Caldwell Testimony, *supra* note 17 at 116.

20 42 U.S.C. 4332(1).

Subcommittee of the Senate Public Works Committee, who feared that the breadth of NEPA would infringe upon the environmental programs developed by his subcommittee.²¹ Senator Muskie also doubted that S. 1075 had any real enforcement teeth.²² Jackson was adamant that the bill was not designed to alter existing environmental protection standards, but rather to "assure consideration of environmental matters by all agencies in their planning and decision-making, especially those agencies who now have little or no legislative authority to take environmental considerations into account."²³ To ease Muskie's concerns, Jackson amended S.1075 before the committee convened.²⁴ The "Muskie-Jackson compromise" a change in the requirement that agencies make a "formal finding" of the environmental impacts of a proposed action to simply requiring the agency prepare a "detailed statement" of the environmental impacts. The compromise also mandated that proposing agencies consult with environmental agencies when preparing environmental reviews and added section 303 providing for the continuing obligation of federal agencies to comply with other federal environmental

21 See 115 CONG. REC. 30, 15544 (1969).

22 LINDSTROM AND SMITH, *supra* note 11 at 46 (arguing that Senator Muskie's concerns about a toothless NEPA are still viable today, in that "as long as an agency complies with the EIS procedural requirements in NEPA, final decisions on whether to proceed with the proposed action are left up to the agency."). *Id.*

23 115 CONG. REC. 30, 40418 (1969)(statements of Sen. Jackson).

24 See LINDSTROM AND SMITH, *supra* note 11 at 47.

laws.²⁵

As S. 1075 came out of committee, the intent of the legislation was clear: "to establish, by congressional action, a national policy to guide Federal activities which are involved with or related to the management of the environment or which have an impact on the quality of life."²⁶ Senator Jackson described NEPA as "the most important and far-reaching conservation-environmental measure ever acted upon by the Congress"²⁷ and he intended that the policies of S. 1075 to be implemented by all federal agencies, stating that if "the goals and principles are to be effective, they must be capable of being applied in action."²⁸

Today, NEPA is generally associated with the procedural requirement that all proposals for "major Federal actions" submit an Environmental Impact Statement (EIS) to the Council on Environmental Quality (CEQ).²⁹ The EIS is currently considered

25 *Id.* The Muskie-Jackson compromise also included § 103, which provided that federal agencies had a continuing obligation to comply with existing federal laws. *Id.*

26 The National Environmental Policy Act of 1969, S. Rep. no. 91-296, at 8 (1969) (Report to accompany S. 1075).

27 115 CONG. REC. 30, 40416 (1969)(statements of Sen. Jackson).

28 S. Rep. no. 91-296, at 8-9 (1969) (stating that if "the goals and principles are to be effective, they must be capable of being applied in action," and they can be "implemented into the ongoing activities of the Federal government."). See also Yost, *supra* note 3 at 535.

29 NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C).

the "cornerstone" of NEPA's environmental protections.³⁰

Professor Lynton Caldwell, the architect of the environmental impact statement, declared NEPA to be a substantive national policy of environmental protection with an "action-forcing" mechanism, the EIS.³¹

Courts have interpreted the substantive policy in NEPA § 101 to be somewhat flexible, however, the procedural provisions in NEPA § 102 were found to be required "to the fullest extent possible."³² The court in *Calvert Cliffs* held that agencies are "not only permitted, but compelled, to take environmental values into account."³³ For the most part, these procedures are judicially enforceable duties placed on agencies. However, NEPA's implementation has been characterized as "diverse and

30 Young v. GSA, 99 F. Supp. 2d 59, 67 (D.D.C. 2000) ("The cornerstone of NEPA's procedural protections is the Environmental Impact Statement . . .").

31 LYNTON K. CALDWELL, *THE NATIONAL ENVIRONMENTAL POLICY ACT: AN AGENDA FOR THE FUTURE* 29 (1998). See Caldwell Testimony, supra note 17 at 112-135.

32 *Calvert Cliffs' Coordinated Comm. v. Atomic Energy Comm'n*, 449 F.2d 1109, 1112 (D.C. Cir. 1971), cert. denied, 404 U.S. 942 (1972). There are three judicially created exceptions to NEPA's procedural requirements, see *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375 (1973) (functional equivalence exemption); *Flint Ridge Dev. Co. v. Scenic Rivers Ass'n of Okla.*, 426 U.S. 776 (1976) (irreconcilable conflict exemption); *Pacific Legal Foundation v. Andrus*, 657 F.2d 889 (6th Cir. 1981) (displacement exemption); see Aaron Ehrlich, *In Hidden Places: Congressional Legislation That Limits the Scope of the National Environmental Policy Act*, 13 HASTINGS W.N.W. J. ENV'T'L L. & POL'Y 285, 289-91 (2007).

33 *Calvert Cliffs*, 449 F.2d at 1112.

messy"³⁴ and the procedural mechanism of NEPA, the EIS, has emphasized form rather than in substance.³⁵

III. THE PROCEDURAL AND SUBSTANTIVE IMPACT OF NEPA

A. Procedural Impact of NEPA - Judicial Interpretations

Commentators generally agree that NEPA implementation has been dominated by the procedural requirement of the Environmental Impact Statement.³⁶ Lindstrom and Smith present the typical argument that NEPA implementation has faltered because presidents, agencies, and courts have focused on the EIS requirement rather than the long-term goals of the stated policy in the Act.³⁷

The vague language and broad scope of NEPA gave courts

34 Paul J. Culhane, *NEPA's Effect on Agency Decision Making: NEPA's Impacts on Federal Agencies, Anticipated and Unanticipated*, 20 ENVTL. L. 681, 682 (1990).

35 *Id.* at 693.

36 LINDSTROM AND SMITH, *supra* note 11 *passim*; Matthew J. Lindstrom, *Procedures without Purpose: The Withering Away of the National Environmental Policy Act's Substantive Law*, 20 J. LAND RESOURCES AND ENVTL. L. 245, 255-63 (2000); Culhane, *supra* note 34 at 684-90; Roger P. Hansen et al., *NEPA and Environmental Streamlining: Benefits and Risks*, 9 ENVTL. PRAC. 83 (2007); Dinah Bear, *Some Modest Suggestions for Improving Implementation of the National Environmental Policy Act*, 43 NAT. RESOURCES J. 931, 937-49 (2003).

37 LINDSTROM & SMITH, *supra* note 11 at 27 (arguing that "[t]he authors of NEPA intended more from their work than the watered down, expensive, procedural paper chase that characterizes NEPA's implementation in federal agencies today.").

considerable leeway in formulating how the law is enforced.³⁸ Courts have gravitated toward treating NEPA as a procedural requirement that, once satisfied, fulfills the mandates of NEPA itself. This leaves the complying agency with the discretion to decide how to implement a decision once the required environmental review is complete, even if the chosen course is not the most environmentally sound.³⁹ This reasoning was evident in the Supreme Court's first case dealing directly with the judicial review of NEPA implementation, *Kleppe v. Sierra Club*.⁴⁰

In *Kleppe*, the Court held that the "procedural duty imposed upon agencies" was very precise and should be precisely enforced.⁴¹ However, the Court was hesitant to decide which

38 See LINDSTROM & SMITH, *supra* note 11 at 22-37.

39 See *Dep't of Transp. v. Public Citizen*, 541 U.S. 752, 775 (2004); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989).

40 *Kleppe v. Sierra Club*, 427 U.S. 390 (1976). In an earlier, non-NEPA case, *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402 (1972), the Court established the proper judicial review for informal agency decisions under the Administrative Procedure Act to be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A) (2000); *Overton Park*, 401 U.S. at 416. This standard of review was applied to agency decisions implementing NEPA in *Marsh v. Oregon Natural Res. Council*, 490 U.S. 360, 375-78 (1989). However, the Court noted that judges should carefully review the information on the record before granting this judicial deference. *Id.* at 378. See Matthew Porterfield, *Public Citizen v. United States Trade Representative: The (Con)fusion of APA Standing and the Merits under NEPA*, 19 HARV. ENVTL. L. REV. 157 (1995); and, Jason J. Czarnezki, *Revisiting the Tense Relationship Between the U.S. Supreme Court, Administrative Procedure, and the National Environmental Policy Act*, 25 STAN. ENVTL. L. J. 3 (2006).

41 *Kleppe*, 427 U.S. at 406.

specific action a federal agency should take, noting that a court should not "substitute its judgment for that of the agency as to the environmental consequences of its actions. . . . [T]he only role for a court is to ensure 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."⁴² It was from this decision that the hard look doctrine arose, requiring agencies to engage in a serious undertaking consistent the procedural steps required by NEPA.

The Court reinforced this position shortly after *Kleppe* in *Vermont Yankee*.⁴³ In *Vermont Yankee* the Court recognized the substantive provisions of NEPA but relegated these provisions to a secondary status, holding that the law "does set forth significant substantive goals for the nation but its mandate to the agencies is essentially procedural."⁴⁴ In continuing with its hesitation to oversee an agency's decision on what action to take after the environmental impacts have been analyzed, the Court restated its original position in *Kleppe* that NEPA's purpose was "to ensure a fully informed and well-considered

42 *Id.* at 410; see generally JAY AUSTIN, JUDGING NEPA: A "HARD LOOK" AT JUDICIAL DECISION MAKING UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT, (2004).

43 *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519 (1978).

44 *Id.* at 558.

decision, not necessarily a decision the judges of the Court of Appeals or of this Court would have reached had they been members of the decision-making unit of the agency."⁴⁵ The general effect of these and other Supreme Court⁴⁶ cases has been a deferential review of final agency decisions under NEPA.

Even though the Supreme Court has not been willing to enforce the substantive provisions of NEPA, it has stringently applied the procedural requirements of § 102(2)(C). The Court reasoned that by requiring environmental evaluations on environmental consequences "NEPA ensures that important effects will not be overlooked or underestimated . . ."⁴⁷ It found that NEPA's procedural integration into agencies would "inevitably bring pressure to bear on agencies to respond to the needs of environmental quality."⁴⁸

Although commentators have been critical of this procedure-only judicial enforcement of NEPA,⁴⁹ the Supreme Court has not enforced NEPA's substantive application, initially referring to the substantive provisions as "lofty purposes."⁵⁰ In *Andrus* and

45 *Id.*

46 See *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 376-77 (1989) and *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 355-57 (1989).

47 *Robertson*, 490 U.S. at 349.

48 *Id.* at 332, (citing 115 Cong. Rec. 30, 40425 (1969) (remarks of Sen. Muskie)).

49 See *Yost*, *supra* note 3 at 543.

50 *United States v. Students Challenging Agency Regulatory*

subsequent decisions, the Court found that complying with the procedural requirements was an "outward sign that environmental values and consequences have been considered during the planning stage of agency actions."⁵¹ In general, courts have enforced the procedural requirement, finding that compliance with the process should promote substantive changes in decision-making.⁵²

The Supreme Court's refusal to consider substantive issues has limited the scope of NEPA.⁵³ Still, some commentators argue

Procedures, 412 U.S. 669, 693 (1973) (SCRAP I). SCRAP I was the Court's earliest NEPA encounter. Only later did it recognize that NEPA imposed "discrete" procedural requirements in *Aberdeen & Rockfish R.R. v. Students Challenging Agency Regulatory Procedures*, 422 U.S. 289, 319 (1976) (SCRAP II). However, in SCRAP II, the Court also found a right of action to enforce that obligation. *Id.*

51 *Andrus v. Sierra Club*, 442 U.S. 347, 349-350 (U.S. 1979) (noting that the substantive goals "could be incorporated into the everyday functioning of the Federal Government only with great difficulty."). The Court's reasoning that procedural compliance was an "outward sign" was echoed in *Weinberger v. Catholic Action of Haw.*, 454 U.S. 139, 143 (1981).

52 *Czarnezki*, *supra* note 40 at 7. *Czarnezki* points out that some lower courts have provided substantive enforcement of NEPA by finding mitigation measures procedurally defective, citing particularly *Stein v. Barton*, 740 F.Supp. 743, 754 (D. Alaska 1990); and, *Friends of the Earth v. Hall*, 693 F.Supp. 904, 939 (W.D. Wash. 1988).

53 *Strycker's Bay Neighborhood Council, Inc. v. Karlen*, 444 U.S. 223, 227 (1980) (citing *Vermont Yankee Nuclear Power Corp.*, 435 U.S. at 558). The Court disagreed with a court of appeals' conclusion that "an agency, in selecting a course of action, must elevate environmental concerns over other appropriate considerations. On the contrary, 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'." 444 U.S.

that since the Court has not directly addressed the provisions in § 102(1) requiring that all laws, policies and regulations of the United States be applied in accordance with § 101 standards,⁵⁴ the Court still has the opportunity to review agency actions under the substantive policies mandated by § 102(1).⁵⁵

B. Substantive Impact of NEPA

By incorporating environmental concerns into the federal decision-making process through its mandatory procedural requirements, NEPA has had an indirect substantive effect on federal actions. This notion is supported by broad-based NEPA studies finding that its procedural requirements increased the environmental awareness of federal agencies and altered their decision-making.⁵⁶ Several studies have also more narrowly

at 227-228 (citing *Kleppe v. Sierra Club*, 427 U.S. 390, 410, n.21 (1976)).

54 NEPA § 102(1), 42 U.S.C. § 4332(1); see Eric Pearson, *Section 102(1) of the National Environmental Policy Act*, 41 CREIGHTON L. REV. 369, 374-76 (2008).

55 Harvey Barlett, *Is NEPA Substantive Review Extinct, or Merely Hibernating? Resurrecting NEPA Section 102(1)*, 13 TUL. ENVTL. L.J. 411, 448 (2000).

56 Allan F. Wichelman, *Administrative Agency Implementation of the National Environmental Policy Act of 1969: A Conceptual Framework for Explaining Differential Response*, 16 NAT. RESOURCES J. 263 (1976); Richard N. L. Andrews, *Agency Responses to NEPA: A Comparison and Implications*, 16 NAT. RESOURCES J. 301 (1976) (finding that NEPA's failure to be its lack of influence in major federal decisions, impeded mainly by political forces); Robert V. Bartlett and Walter F. Baber, *Matrix Organization Theory and*

focused on the impact of environmental review on a single agency or project.⁵⁷

An early study by Allan Wichelman is informative.⁵⁸ Wichelman found that agency officials charged with NEPA compliance sought to effect "environmentally desirable substantive changes in [their] particular agency proposals and

Environmental Impact Analysis: A Fertile Union, 27 NAT. RESOURCES J. 605 (1987); SERGE TAYLOR, MAKING BUREAUCRACIES THINK: THE ENVIRONMENTAL IMPACT STATEMENT STRATEGY OF ADMINISTRATIVE REFORM, 351-52 (1984); Robert Smythe and Caroline Isber, *NEPA in the Agencies: A Critique of Current Practices*, 5 ENVTL. PRAC. 290, 290-93 (2003); LIROFF, *supra* note 2 at 74-141 (analyzing the administrative responses to early agency implementation); *but see* Cortner, *A Case Analysis of Policy Implementation: The National Environmental Policy Act of 1969*, 16 NAT. RES. J. 323 (1976) (arguing that institutional limitations and lack of full judicial enforcement has allowed NEPA to fall short of its goals). For a brief discussion of relevant studies, see MANDELKER, *supra* note 7 at §§ 11.4-11.6.

57 Laura L. Smith and Alexander G. Fernald, *The Ineffectiveness of Using the National Environmental Policy Act of 1969 to Implement Environmental Enhancement in the Rio Grande Canalization Project*, 14 REVS. FISHERIES SCI. 139, 139-42, 158-61 (2006) (finding NEPA more effecting in preventing environmental degradation in new projects, however, it fails to be effective where projects are based on prior decision making); Michael T. Kamprath and John S. Miller, *Corridor Protection Through NEPA*, 132 J. PROF. ISSUES ENG'G EDUC. PRAC. 158, 159-161 (2006) (A case study using the Virginia Department of Transportation, using NEPA as a corridor protection instrument); Dorothy W. Bisbee, *NEPA Review of Offshore Wind Farms: Ensuring Emission Reduction Benefits Outweigh Visual Impacts*, 31 ENVTL. AFFAIRS 349, 351-57, 374-79 (2004) (arguing that NEPA has been implemented with a lack of guidance and that it needs to be better adapted to allow third party reviews of projects); Minnesota Environmental Quality Board, working paper: *The General Environmental Impact Statement on Animal Agriculture in Minnesota* 108-133 (May 18, 2001)(case study of environmental reviews of feed lots in Minnesota, finding that the environmental assessments impacted decision making and government deliberation, showing several cases where permits were denied referring to information in the EAs).

58 Wichelman, *supra* note 56.

activities"⁵⁹ but indicated the barriers to doing so included the time needed to implement the procedural elements of NEPA and the problems associated with assessing long-term, cumulative and secondary impacts.⁶⁰ Still, Wichelman foresaw a "programmatic planning phase" of agency behavior whereby NEPA goals would be integrated at the policy-making level, completing the integration of NEPA's substantive goals into all agency planning.⁶¹

In another study released the same year, Richard Andrews found that agencies did not act on the substantive goals of NEPA and that procedural compliance produced varied effects.⁶² In comparing the decision-making process of two federal agencies,⁶³ Andrews found the EIS became the dominant mechanism incorporating NEPA goals.⁶⁴ It was the "EIS review by nongovernmental individuals and groups . . . accompanied by the threat of ad hoc involvement and legal action" that contributed

59 *Id.* at 292.

60 *Id.*

61 *Id.* at 295.

62 Richard N. L. Andrews, *Agency Responses to NEPA: A Comparison and Implications*, 16 NAT. RESOURCES J. 301, 320 (1976) (concluding that "NEPA's procedures were implemented largely without reference to its substantive purposes.").

63 Andrews analyzed two water resource projects, one by the Civil Works Program of the Army Corps of Engineers, and another by the Small Watersheds Program of the Soil Conservation Service.

64 Andrews, *supra* note 62 at *passim*.

the most to NEPA implementation.⁶⁵ Both Andrews and Wichelman found incremental change in agency planning that resulted from the procedural incorporation of NEPA; however, they both noted that substantive implementation of NEPA was sporadic and influenced by internal and external factors that limited the effectiveness of agency environmental considerations.

In a review of NEPA's implementation in the 1970s, Richard Liroff came to a similar conclusion.⁶⁶ He contended that NEPA has been an effective instrument in integrating environmental policy into agency decision, noting that NEPA became a "blunt instrument for combating numerous economically marginal, environmentally unsound federal projects."⁶⁷ However, using the Tellico Dam as a case study, Liroff reminds us of NEPA's inherent limits and constraints in dealing with politically influential federal projects.⁶⁸

A seminal study by Professor Serge Taylor in 1984 found that

65 *Id.* at 321-22 (noting that an even more important factor was "political forces operating independently of environmental policy purpose.").

66 Richard Liroff, *NEPA—Where Have We Been and Where are We Going?*, 46 J. AM. PLAN. ASS'N 154, 157 (1980).

67 *Id.* Liroff notes that NEPA achieved systematic change in the Army Corps of Engineers, resulting in 41 projects stopped, 347 modified, and 102 temporarily halted from 1970-1978. *Id.*

68 *Id.* at 157-58. The Tellico Dam was authorized prior to NEPA and was halted several times throughout the 1970s as a result of NEPA and other environmental litigation against the dam. It was eventually built after legislation was passed by Congress and signed by President Carter, "reportedly in exchange for some favorable votes on unrelated pieces of legislation." *Id.*

the procedural EIS requirements were a successful method in integrating the ambitious environmental concerns of NEPA into federal agencies.⁶⁹ Taylor analyzed the EIS process of the Corp of Engineers and the Forestry Service and how this procedural mechanism institutionalized environmental concerns in these agencies.⁷⁰ He found that a select group of individuals trained in environmental analysis permeated the agencies, allowing for heightened environmental value in agency decision-making.⁷¹ However, as with the other studies, substantive changes were determined partially by internal and external factors, such as competing program objectives, disagreements between departments and agencies, threat and risk of judicial enforcement, and the resources of the commenting agencies.⁷² Taylor found that the NEPA system greatly increased the environmental interests in the agencies bureaucracies.⁷³ Moreover, NEPA's implementation established a system of "redundancies" whereby environmental interests within an agency (insiders), along with environmental interests external to the agencies (outsiders), complemented

69 Taylor, *supra* note 56 at 5-7.

70 *Id.* at 251-74.

71 *Id.* at 351-52.

72 *Id.* at 27-31, 164-66, 251-53. Taylor also noted that the structure of EIS writing teams, mixed with environmentalists and non-environmentalists, allowed for more efficient allocation of resources, where "those projects with the greatest environmental costs and little political support within the agency and among its other constituencies, get eliminated." *Id.*

73 *Id.* at 160.

each other in confronting environmental problems.⁷⁴ As this and earlier studies show, the substantive effect of NEPA on federal actions does exist; however, it is qualified by numerous variables and dependent on agency integration, resulting in many "unanticipated" effects from the legislation.⁷⁵

Finally, Smythe and Isber conducted in 2003 a comparative study, surveying NEPA's implementation in 12 federal agencies.⁷⁶ The authors found variations among federal agencies in the authority given to their NEPA officials, budgetary restrictions among offices charged with compliance, and training given to employees charged with NEPA compliance.⁷⁷ They found four major issues with NEPA implementation prevalent to different degrees

74 *Id.* at 160, 32, 262-71. Taylor writes that environmental interests (both internally and externally) "have gained increased legitimacy to participate in the bureaucratic politics surrounding environmental policy." *Id.* At 262-71. On redundancies, Taylor argued that "If one group of analysts fails in a particular case, the other group, working in parallel on the same environmental problem, may catch the error. In any event, the breakdown in one subsystem, either the internal or external group analysts, may serve to alert the other to devote particular attention to the environmental problem in question." *Id.*

75 Culhane, *supra* note 34 at 681-84.

76 Robert Smythe and Caroline Isber, *NEPA in the Agencies, a Critique of Current Practices*, 5 ENVTL. PRAC. 290, 290-91 (2003). The agencies included in Smythe and Isber's study were the: Forest Service; Rural Housing Service/Rural Business Cooperative Service; National Oceanic and Atmospheric Administration; US Army Corps of Engineers, Civil Works Program; DOE's Office of Environmental Safety, and Health; EPA's Office of Federal Activities; Food and Drug Administration Center for Drug Evaluation and Research; Indian Health Service; Office of Environmental Policy and Compliance; Bureau of Indian Affairs; Bureau of Land Management; and the Federal Highway Administration. *Id.* at 291.

77 *Id.* at 290.

in the agencies: there was (1) a steadily increasing workload accompanied by a decreasing staff and budgetary resources; (2) a general need for further guidance on how to analyze cumulative and indirect effects of actions; (3) a need for guidance on the appropriate level of NEPA compliance, such as whether to prepare an EA, or directly prepare an EIS; and, (4) downward pressure to minimize time and costs rather than assuring quality analysis.⁷⁸ Smythe and Isber recommended, among other actions, that the CEQ become more directly involved in NEPA compliance oversight and in working with senior agency officials.⁷⁹

A common theme in all these studies is that NEPA has helped institutionalize environmental values in federal agencies. By integrating these values into the decision-making structures of organizations NEPA has had a substantive effect on federal actions. The criticism that arises with NEPA is not with this indirect benefit but with the lack of direct substantive application of the goals drafted in § 101.

78 *Id.* at 292.

79 *Id.* at 292-93.