ECOLOGY COMES OF AGE: NEPA'S LOST MANDATE

SAM KALEN*

Twenty-first century challenges are testing the resiliency of our nation's environmental programs. The common law, the Clean Air Act, the Clean Water Act, the Endangered Species Act and the National Environmental Policy Act ("NEPA") are all being examined as tools for averting, minimizing, and adapting to changing climatic conditions precipitated by increased greenhouse gas ("GHG") emissions.1 But climate change is not our solitary concern: The world is confronting the "New Population Bomb,"2 rising affluence but insufficient infrastructure, and an increasingly fragile food delivery system.3 So too the traditional assumption that western

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civilization-style economic growth is tied to energy development and production is not necessarily a modernist mantra;⁴ many politicians and academics talk, instead, about what Thomas L. Friedman has described as a new "Energy-Climate Era."⁵ Some in the environmental community, such as Ted Nordhaus and Michael Shellenberger, further suggest that "environmentalism," too, must embrace a greater appreciation for how human aspirations and economic development can coalesce within a new environmental paradigm.⁶ In this new era, then, we must address how to balance (a) the need to generate jobs and stimulate our economy, (b) vastly reduce our fossil fuel consumption and GHG emissions while maintaining geopolitical stability, and (c) imbue sustainability into the national agenda.

No environmental program, no matter how well designed, can solve the multi-dimensional aspects of the supra-national, national and sub-national environmental challenges of today. A solution is dependent on collective human creativity and commitment. Programs nevertheless may articulate, within the limits of our language, a shared societal vision and proffer mechanisms for promoting that vision. Two dominant themes permeate modern rhetoric and arguably reflect a shared vision: a recognition of the interrelatedness of systems—air, water, land, wildlife, and humans; and an appreciation that human domination over nature ought to be animated by less dominance, more parity, and an overriding goal of sustainability. These themes are now foundational principles in modern ecology.⁷ When defending his Gaia theory that the earth is a

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⁵ Thomas L. Friedman, Hot, Flat, and Crowded: Why We Need a Green Revolution and How It Can Renew America 49 (2008).

⁶ See generally Ted Nordhaus & Michael Shellenberger, Break Through: From the Death of Environmentalism to the Politics of Possibility (2007) (recognizing the need for a rebirth of "environmentalism" and renewed political strategy).

dynamic, self-regulating interrelated system, the eminent English scientist James Lovelock refers to this paradigm as "holistic system science." In both the academic and some governmental communities of today, this idea of interrelated systems predominates. And perhaps more than any other federal statute, NEPA—heralded as the Magna Carta of environmental laws—exemplifies the need to view systems through a wider-angle lens that captures the dynamic of ecological principles and promotes sustainability.

Unfortunately, the procedural aspect of NEPA, the section 102(2)(C) process, has eclipsed the primary goals and objectives—that is, the congressional intent—animating the passage of NEPA. As Lynton Caldwell, a principal actor in NEPA’s history, observed only three years after its passage, "[t]he ultimate effectiveness of the Act is being threatened by underemphasis on its intended ends and overemphasis on one of several means to those ends."

NEPA, a relatively short statute, contains three principal parts. First, Title I of the Act declares a national environmental policy and establishes goals. Second, the Act contains an "action-forcing"
mechanism, requiring the preparation of a "detailed statement," now referred to as an Environmental Impact Statement (EIS), for any "proposals for legislation" or "other major Federal actions significantly affecting the quality of the human environment." 14

Finally, Title II authorizes the establishment, in the Executive Office, of a Council on Environmental Quality (CEQ). 15

Most discussions about NEPA are dominated by the "action-forcing" mechanism—the NEPA document preparation process. 16 This is perhaps understandable in light of the Supreme Court's "assumption" that NEPA is merely a procedural statute. 17 The Academy often accepts with too little questioning the Court's admonition that NEPA only mandates procedures designed to ensure an informed decision-making process, 18 and those who do question

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14. National Environmental Policy Act § 102(2)(C), 42 U.S.C. § 4332(2)(C) (2006). As part of any such EIS, the agency must address:

(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 the 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. Prior to any EIS, Congress directed that agencies consult with and solicit the views of Federal, State and local environmental agencies, and provide any such comments to the public and to the Council on Environmental Quality, with any statement and comments accompanying the proposal through the existing agency review process. Id. Independent of any EIS, agencies also must "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." Id. § 4332(2)(E).

15. Id. § 4341.

16. See, e.g., ROGER W. FINDLEY & DANIEL A. FARBER, ENVIRONMENTAL LAW 28 (2008) (“The most significant provision of NEPA is undoubtedly § 102(2)(C)”).


the Court’s assumption only marginally explore the congressional history surrounding NEPA’s passage.  

The assumption that NEPA only mandates procedures is not beyond rebuke. The Supreme Court’s NEPA opinions never confront basic questions about the Act and how it should be interpreted; instead, the Court’s opinions during NEPA’s nascent years reflect an overemphasis on the need to establish modern principles of judicial review under the Administrative Procedure Act and jostling with the D.C. Circuit, rather than any meaningful effort to discern how and what Congress intended when it passed NEPA. Each of the Court’s NEPA precedents are vulnerable, with its decision in 

Strycker's Bay Neighborhood Council, Inc. v. Karlen

being perhaps the least worthy of the application of stare decisis.

19. E.g., JAMES MCELFISH, ENVIRONMENTAL LAW INSTITUTE RESEARCH REPORT, REDISCOVERING THE NATIONAL ENVIRONMENTAL POLICY ACT: BACK TO THE FUTURE (2005); Jason J. Czarnecki, Revisiting the Tense Relationship Between the U.S. Supreme Court, Administrative Procedure, and the National Environmental Policy Act, 25 STAN. ENVT'L. L.J. 3 (2006) (addressing how the Administrative Procedures Act may require affording sufficient weight to environmental values); Joel A. Mintz, Taking Congress’s Words Seriously: Towards a Sound Construction of NEPA’s Long Overlooked Interpretation Mandate, 38 ENVT'L. L. 1031 (2008) (focusing primarily on the plain language and case law). See also Nicholas C. Yost, NEPA’s Promise—Partially Fulfilled, 20 ENVTL. L. 533, 534–36 (1990) (briefly reviewing the legislative history and the plain language to indicate that the courts have given insufficient weight to Congress’s intent).


22. Strycker’s Bay often serves as the seminal decision eliminating any substantive mandate from NEPA. See infra note 34 and accompanying text (Alyson Flournoy et al., describing Strycker’s Bay as the seminal decision eliminating any substantive mandate from NEPA). See also Mathew J. Lindstrom, Procedures Without Purpose: The Withering Away of the National Environmental Policy Act's Substantive Law, 20 J. LAND RESOURCES ENVTL. L. 245, 260 (1992) (the Court in Strycker’s Bay “effectively squashed any possibility of judicial enforcement of NEPA’s substantive goals”); HOLLY DOREMUS, ALBERT C. LIN, RONALD H. ROSENBERG & THOMAS J. SCHOFENBAUM, ENVIRONMENTAL POLICY LAW: PROBLEMS, CASES, AND READINGS 238 (2008) (“The Supreme Court, beginning with the Strycker’s Bay decision, has consistently refused to permit substantive judicial review of agency decisions under NEPA.”); RICHARD L. REVESZ, ENVIRONMENTAL LAW AND POLICY 795, 808 (2008) (invoking Strycker’s Bay to argue for NEPA being a procedural statute). Yet, the Strycker’s Bay Court issued only a per curiam opinion on summary disposition. The Court had before it a petition for writ of certiorari, without briefing or oral argument, and the paltry nine pages of argument in the writ petition contained only block quotes from a few earlier cases. See Petition for Writ of Certiorari at 3, 17–26, Strycker’s Bay, 444 U.S. 223 (No. 79-168). The Court’s resulting analysis is equally meager, with one paragraph of analysis and mere quotes from earlier cases that a court should not second guess an agency’s choice of action. See 444 U.S. at 227–28. Robert Percival aptly informs us that the opinion secured a majority of the justices the day after circulation of a draft opinion. See Robert V. Percival, Environmental Law in the Supreme Court: Highlights from the Marshall Papers, 23 ENVTL. L. REP. 10,606, 10,611 (1993). The Court’s decision, moreover,
The ever-fading history surrounding NEPA’s passage reveals much more than the exclusively procedural statute assumed in *Strycker’s Bay*. Increasing public appreciation that Congress expected the Act to have a substantive mandate requires a better understanding by the academy—as well as the judiciary—of what Congress intended when it passed the *Magna Carta* of environmental laws. That such little attention has been paid to a paradigm shifting statute is unfortunate. Few existing histories of NEPA do justice to the Act or the participants in the drama that unfolded around its passage. Many commentators, including some of the principal participants, merely reference the “highlights” without affording the reader sufficient context. Only one historical account, an unpublished dissertation by Terrance Finn, chronicles in any depth the development of NEPA. This article, therefore, attempts to provide a fuller picture of NEPA’s history and the substantive intent behind the statute.

The importance and continuing relevance of NEPA’s history cannot be overstated. Congress did not intend that NEPA would serve only an information disclosure function. Rather, Congress more significantly intended to embrace and employ ecology—however it understood the concept—and expected that its policy statement and

overlooks the merits of the Department of Housing and Urban Development’s decision, even though the case had as much to do with the agency’s arguable violation of Fair Housing policy as with NEPA. See Kalen, supra note 20, at 543.


declaration would serve as a substantive mandate for federal agencies. Congress further expected that CEQ would perform a proactive role in both environmental management and coordination of federal decisionmaking.

Probing Congress’s intent in passing NEPA remains acutely relevant today. To begin with, aside from the pedagogical goal of ensuring that what Congress accomplished in NEPA does not remain relegated to a fading past, emphasizing NEPA’s fundamental objective of incorporating ecological principles into public administration highlights the statute’s flexibility to adapt to modern ecological concerns. Two implicit and related assumptions existed when many of the modern environmental laws were first passed: first, there was a presumption that the natural environment encompassed a static ecological unit free from human interference—that is, we can identify and describe a stable geographic area in equilibrium over time and not influenced by human development. Second is a corollary presumption; that we can effectively take a snapshot of the environment—that is, describe an environmental baseline both spatially and temporally—and predict how human actions might alter that picture. But ecosystems are not in equilibrium; they are complex, dynamic and quite possibly chaotic. Predicting the precise impact of


decisions, therefore, is problematic and, absent an ability to employ adaptive management techniques, our judgments are but educated and statistically driven guesses that may risk unanticipated effects.27

Yet many of our modern environmental and natural resource programs presume such predictive ability. Robert Glicksman, for example, describes how our public land management laws all assumed a "natural equilibrium" and that since these laws were passed "the science of ecology experienced a 'paradigm shift.'"28 Bradley Karkkainen similarly writes that "[w]e continue to muddle through with statutory and regulatory frameworks predicated upon outdated and erroneous mid-twentieth-century assumptions about the ease of acquiring and processing the information required for sound environmental decision making."29 Both NEPA and the Endangered Species Act ("ESA"), in particular, are presently administered under the classic paradigm. The ESA, for instance, assumes that we can predict from a snapshot of an "environmental baseline" what the
direct and indirect effects of an action will be when "added" to that baseline. And Karkkainen argues that NEPA requires too much clairvoyance and we need to focus on follow-up monitoring, empirical testing, and adaptive management to mitigate unanticipated or incorrectly assumed impacts.

If we accept that those who orchestrated the passage of NEPA intended that the Act would mandate environmentally sound decisions and enshrine ecology into the national agenda, the Act can be administered flexibly to respond to evolving ecological and other principles. To begin with, to the extent that modern ecology recognizes the difficulty with predicting the impact of decisions on continually changing ecosystems, NEPA can employ adaptive management as urged by Karkkainen, or provide the ability to continuously monitor, assess, and readjust decisions based on the cycling of new information. CEQ recently nudged in this direction, when it recognized that our "environment . . . is evolving and not static" and, as such, "monitoring can help decision-makers adapt to changed circumstances."

Moreover, elevating NEPA to the status intended by Congress diminishes the need for pursuing alternative creative legal or political solutions, which are often difficult to achieve. Alyson Flournoy, Heather Halter, and Christina Storz, for instance, suggest that, in lieu of pursuing NEPA's flexibility, we explore passing a National

32. Holly Doremus refers to this as learning while doing, accepting that science is often incapable of making ex ante judgments. Holly Doremus, Precaution, Science, and Learning While Doing in Natural Resources Management, 82 WASH. L. REV. 547, 550 (2007).
33. Memorandum from Nancy H. Sutley to Heads of Federal Departments and Agencies, supra note 1.
Environmental Legacy Act with a substantive mandate to protect legacy resources for future generations.\(^{34}\) The realities of politics unfortunately make this difficult to achieve. And the authors' dialogue about NEPA's shortcomings arguably overlooks the fact that NEPA can be administered in a manner similar to their proposed Legacy Act. Similarly, Mary Wood, for instance, opines that our 1970's-era environmental laws cannot cope with our present crises and calls for a revolutionary change in our legal approach to environmental issues. She suggests that a principle of "Nature's Trust," imbued with constitutional overtones, serve as the foundation for a paradigm shift toward a legal regime whose goal will mandate protecting our common natural resources.\(^{35}\) But again, this is, in part, what Congress expected to accomplish when, in the fall of 1969, it delivered NEPA to President Nixon.

Additionally, Congress's decision to make ecology part of the national agenda offers the necessary latitude for agencies to incorporate modern scientific tools for better decision-making.\(^{36}\) Agencies already regularly employ Geographic Information Systems ("GIS") in their analyses, allowing them to better identify ecological resources. The development of "ecosystem services" as an approach to ascribe value to natural systems is gaining sufficient currency that it could soon prove fundamental in the NEPA process\(^{37}\) and be


\(^{36}\) See NEPA § 102(2), 42 U.S.C. § 4332(2) (2006) (providing that agencies are to “utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts,” as well as “identify and develop methods and procedures . . . which will ensure that presently unquantified environmental amenities and values may be given appropriate consideration”).

particularly helpful in ensuring that agencies make environmentally sound—and not merely informed—decisions. Robert Fischman, for instance, suggests that the Environmental Protection Agency could use its section 309 Clean Air Act authority to provide guidance on incorporating ecosystem services into NEPA documents. Of course, CEQ could accomplish this as well and receive deference in any subsequent judicial arena. As these and other new ideas surface, we need to appreciate NEPA’s resiliency for addressing our society’s evolving threats.

Part I of this article traces the emergence of ecology into the public policy arena. Part II taps Finn’s dissertation, and other contemporary sources, to examine the coalescing forces of the ecological movement and Congress’s desire to legislate on environmental quality that ultimately produced NEPA. In part III, I offer some brief observations about why NEPA’s mandate perhaps faded as NEPA began to unfold in both the agencies and courts. I also suggest that it is not too late to deploy the paradigmatic shift contemplated by Congress when it accepted ecology into the public arena.

I. THE RISE OF ECOLOGY

In September 1969, a group of lawyers, professors, conservation leaders, as well as Senate Interior Committee staff gathered at the Airlie House in Warrenton, Virginia to talk for two days about potential and evolving legal tools for protecting and enhancing the environment. By the end of that year, Congress passed NEPA. Other major developments to come out of Airlie include the formation of the Environmental Law Institute and the prospectus for the Environmental Law Reporter. See

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David Sive, a prominent example of the new environmental lawyer who had attended the Airlie Conference, predicted that NEPA would “broaden significantly the scope of judicial review in environmental cases.”

Soon after NEPA’s passage, environmental issues increasingly captured the popular attention. A January 1970 cover of Newsweek, entitled The Ravaged Environment, evoked the general sentiment that environmental issues had captured the public’s attention, only six months earlier, Time had dubbed 1969 the “Year of Ecology,” and called ecologists the “New Jeremiahs;” the magazine Mother Earth News published its first issue in January 1970; the February 2, 1970 issue of Time Magazine carried a cover story on Environment: Nixon’s New Issue, with Barry Commoner on the cover; in April, the United States held its first Earth Day celebration, following a series of environmental teach-ins; and in December 1970, National Geographic published an issue entitled Our Ecological Crisis, followed a year later by a special hardbound book titled As We Live and Breathe: The Challenge of Our Environment. In short, by the time of NEPA’s passage, the science of “Ecology” or the “study of ecological systems of interdependence” had been welcomed into the popular arena. And so it is no surprise that, in 1970, Robert

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47. A LAIN C. ENTHOVEN & A. MYRICK FREEMAN III, POLLUTION, RESOURCES, AND THE ENVIRONMENT, at ix (1973) (“The ecologist’s view of man focuse[d] on the dependence of the human community on the natural environment and the exchanges and flows of food, materials, energy, and waste products between man and nature—or the interdependence and exchange relationships between man and nature.”).
48. See COUNCIL ON ENVTL. QUALITY, ANNUAL REPORT 6–7 (Aug. 1970) (“Ecology is the science of the intricate web of relationships between living organisms and their living and nonliving surroundings. These interdependent living and nonliving parts make up ecosystems. Forests, lakes, and estuaries are examples. Larger ecosystems or combinations of ecosystems, which occur in similar climates and share a similar character and arrangement of vegetation are biomes. The Arctic tundra, prairie grasslands, and the desert are examples. The earth, its
Heilbroner wrote in the *New York Review of Books*, that "Ecology has become the Thing." 49

Understanding NEPA’s history requires appreciating how ecology arrived at this level of social prominence. The science of ecology had emerged much earlier. "[B]y the time of the 1930s and '40s, ecology was being hailed as a much-needed guide to a future motivated by an ethic of conservation." 50 Eugene P. Odum’s seminal work, *The Fundamentals of Ecology*, surfaced in 1953. 51 Odum’s historic text outlined the now classic approach to ecosystems and emphasized that nature could be managed for the human benefit and that ecologists should play an important role in shaping public policy. 52 Odum even urged law schools to establish “landscape law” departments to assist in this endeavor. 53 It was this emerging science of ecology that laid the groundwork for Aldo Leopold to write *A Sand Country Almanac*. 54

surrounding envelope of life-giving water and air, and all its living things comprise the biosphere. Finally, man’s total environmental system includes not only the biosphere but also his interactions with his natural and manmade surroundings.


51. EUGENE P. ODUM, *THE FUNDAMENTALS OF ECOLOGY* (1953). Other historical figures in the ecology movement also played a critical role; Odum, for instance, credited Victor E. Shelford for converting him into a “holistic ecologist.” ROBERT A. CROKER, *PIONEER ECOLOGIST: THE LIFE AND WORK OF VICTOR ERNEST SHELFORD 1877–1968*, at 101 (1991). Emerging in the ecological movement during the Theodore Roosevelt Progressive era, Shelford had urged ecologists to become engaged in public policy—which then translated into conservation efforts. *Id.* at 122–25, 128–31. And he aggressively sought to have the Ecological Society of America become active in that endeavor. *Id.* at 138–41. The Society’s reticence led him in the mid-1940s to establish the Ecologists Union (later called The Nature Conservancy), which actively participated in lobbying Congress. *Id.* at 145. He was named by the Society as the Eminent Ecologist of 1968, and he unfortunately passed away approximately one year before NEPA became law. *Id.* at 158.


54. Only four years before Odum published his text, Aldo Leopold published his monumental work urging the establishment of a land ethic based on principles of ecology. ALDO LEOPOLD, *A SAND COUNTY ALMANAC* (1949).
After World War II, several evolving factors coalesced to shift the focus from conservation to "ecology." Roderick Nash observes that,

After 1960, old-style utilitarian or resource-oriented conservation decreased in importance relative to environmental quality. Americans expanded their understanding of this idea to include not only scenic and recreational amenities but also the health of the habitat. As an indicator of this change, the term conservation lost favor to environmentalism. Ecology also became a household word.

While the science of ecology was crystallizing in the academy during the 1950s and 1960s, the American public was becoming acutely aware of the growing environmental crisis as it learned about the problems attendant with our dominance over nature. Preceded by the earlier publication of chapters in the New Yorker, Rachel Carson's 1962 publication Silent Spring became an immediate best seller, warning the populace about the persistent problem with toxic pesticides in our environment. Secretary of the Interior Stewart Udall published The Quiet Crisis the following year, championing stewardship and the need to address anthropogenic impacts on the environment and our landscape. Our increasing population, consumption of resources, and concomitant disposal of wastes

55. The eminent historian Samuel P. Hays explains that the conservation movement focused on the particular use of our natural resources, while the environmental (and for our purposes the emerging emphasis on ecology) focused more broadly on an interdisciplinary understanding of our relationship with the environment. See generally SAMUEL P. HAYS, BEAUTY, HEALTH AND PERMANENCE: ENVIRONMENTAL POLITICS IN THE UNITED STATES, 1955–1985 (1987); SAMUEL P. HAYS, CONSERVATION AND THE GOSPEL OF EFFICIENCY: THE PROGRESSIVE CONSERVATION MOVEMENT, 1890–1920 (1959).


became topics widely discussed. Paul Ehrlich’s publication of *The Population Bomb* is a prime example of the growing literature on the carrying capacity of the Earth and its resemblance to a spaceship.
(a biome). This new paradigm reflected the growing awareness that we live in a world with interconnected and interdependent "environments", and that technological advances and the human impact on our resources affect our daily health, the environment, and wildlife.

The emerging discipline of ecosystem also swept through the political branches of the government. In the policy arena, ecology often became part of a larger discussion about the need for better-coordinated federal decision-making. Numerous suggestions for new agencies or a reorganized government surfaced. President Kennedy, for instance, delivered a report to Congress on the importance of protecting our natural resources, and urged the creation of a Council of Natural Resource and Environmental Quality Advisors. Just three years later, President Johnson announced the Natural Beauty campaign. When discussing this campaign, President Johnson explained that the idea of the Earth as a spaceship surfaced in Henry George, Progress and Poverty (1879), but became more popularized later. In 1965, Adlai Stevenson, as ambassador to the U.N., delivered memorable words in Geneva shortly before his death when he declared that "[w]e travel together, passengers on a little space ship, dependent upon its vulnerable reserves of air and soil." Quoted in Caldwell, Between Two Worlds, supra note 57, at 38. See also Kenneth E. Boulding, The Economics of the Coming Spaceship Earth, in Environmental Quality in a Growing Economy 3 (Henry Jarrett ed., 1966); Buckminster Fuller, Operating Manual for Spaceship Earth (1963); Barbara Ward, Spaceship Earth (1966). Garrett Hardin countered the metaphor, arguing that Earth was more like a lifeboat. See Garrett Hardin, We Live on a Spaceship, XXIII Bull. Atomic Scientists (1972). Buckminster Fuller discussed the spaceship metaphor in his comments to Congress. See generally Joint House Senate Colloquium to Discuss A National Policy for the Environment, Hearing Before the S. Comm. on Interior and Insular Affairs and the H. Comm. on Science and Astronautics, 90th Cong. 189–202 (1968) (statement of R. Buckminster Fuller).

63. See Env'tal Pollution Panel, U.S. President's Sci. Advisory Comm., Restoring the Quality of Our Environment 13 (1965) ("[t]he quality of life in a quality environment for all Americans.").

64. Finn explains that Kennedy's proposal provided that the council would be under the Council of Economic Advisors, and this suggestion prompted opposition and ultimately doomed the idea. Finn, supra note 24, at 54.

65. See generally 111 Cong. Rec. 2,085, 2,085–89 (1965) (message from President Lyndon B. Johnson) [hereinafter Johnson Message]. Senator Jackson would later comment that a report prepared for President Johnson on the status of the environment, entitled Restoring the Quality of Our Environment, 1965, was a significant document confirming the need for a national environmental policy. 113 Cong. Rec. 36,854, 36,855 (1967) (reproducing a Sept. 3, 1967 speech
indicated that a "new conservation," or a "creative conservation," was necessary, one that examined "the total relation between man and the world around him." These efforts illustrate the evolving awareness that our natural resources are interrelated and cannot be examined in isolation or through a fragmented analysis. Paul Weiss, an eminent biologist and author of a 1962 report advocating the need to develop an agency capable of exploring ecological consequences, during one of NEPA’s hearings addressed the consensus that national planning and action in matters of environmental control require (a) the application of systems methodology to the man-environment continuum in its unitary totality, and (b) a corresponding organizational framework for the continual assessment from an unfactioned overall perspective of the totality of factors that influence the steadily evolving ecology of many in modern society.

Congress responded. Parroting the theme emanating from the Executive branch, members of Congress similarly began exploring how best to promote greater coordination among their own committees and within the various executive departments. Congress established, for instance, the Water Resources Council and

66. See Johnson Message, supra note 65, at 2,085 (discussing the federal government’s need to take an active role in addressing the problems animating the new conservation).

67. A 1962 National Academy of Sciences study discussed the need to look at activities from an ecological perspective, and suggested the use of what ecologists then referred to as systems analysis. To do this, it recommended, for instance, a natural resources group capable of conducting such an inquiry. See Shelton, supra note 43, at 40–44, 85 (discussing COMM. ON NATURAL RES., U.S. NAT’L ACAD. OF SCI.—NAT’L RESEARCH COUNCIL, NATURAL RESOURCES: A SUMMARY REPORT TO THE PRESIDENT OF THE UNITED STATES (1962)). A similar effort occurred when examining how best to address the Nation’s marine resources. See Donna R. Christie, From Stratton to USCOP: Environmental Law Floundering at Sea, 82 WASH. L. REV. 533, 533–36 (2007).

68. Joint House Senate Colloquium to Discuss A National Policy for the Environment, Hearing Before the S. Comm. on Interior and Insular Affairs and the H. Comm. on Science and Astronautics, 90th Cong. 222 (1968) (statement of Paul Weiss, Professor Emeritus). Vice President Hubert Humphrey would observe, in August 1968, that “[w]e need not only more ecologists, but a new breed of professional ecologists who are prepared to act as broad-ranging ‘environmental specialists’ in ecology, planning, political science, sociology, engineering, and other disciplines which relate to the totality of our environment.” Letter from Hubert H. Humphrey, Vice President, to F. Herbert Bormann 2 (Aug. 9, 1968) (on file with the DUKE ENVTL. L. & POL’Y F.).

69. These efforts to re-organize the congressional committees are aptly captured in Finn’s dissertation. Finn, supra note 24, at 40. See also The Case for a Department of Natural Resources, 1 NAT. RES. J. 197 (1961) (“Our growing population, our industrial demands for raw materials and our commitments abroad all put pressure on our natural resource base . . . . Yet United States public policy towards natural resources is developed and administered by a complex confusing, and conflicting array of agencies, offices, and departments.”).
commissioned the Public Land Law Review Commission. As early as 1958, Congressmen John Dingell had secured amendments to the Fish and Wildlife Coordination Act that required agencies to coordinate with state and federal fish and wildlife agencies and to include in any "report prepared or submitted by any agency of the Federal Government" an assessment of the impact of any water resource project on wildlife resources. Congress considered other more generic legislation, with a bill introduced in 1959 by Senator James E. Murray entitled the "Resources and Conservation Act of 1959," which would have announced a national environmental policy, created an advisory council in the White House to address environmental policy, and required the submission of annual environmental reports to Congress. Bill Van Ness, a principal actor in the development of NEPA, would later observe that Senator Murray's bill served as the "first expression of the need for a unified and comprehensive statement of conservation, resource and environmental policy," and the "need for a high level Council." Thereafter, a variety of bills surfaced promoting the need for a greater understanding of ecology and the relationship between people and the environment, with some bills focusing on better coordination of natural resource policies and others seeking to establish an office of Ecological Research. Several members even introduced resolutions


72. LIDA LUTHER, CRS REPORT FOR CONGRESS: THE NATIONAL ENVIRONMENTAL POLICY ACT: BACKGROUND AND IMPLEMENTATION, at CRS-3 (2008). Three years earlier, Senator Humphrey had introduced the "first modern wilderness bill," and it too would have created a presidential advisory board for wilderness matters. WILLIAM L. GRAF, WILDERNESS PRESERVATION AND THE SAGEBRUSH REBELLIONS 200 (1990). Murray's bill appeared shortly after several noted efforts to address the need for greater coordination in natural resource and environmental policy. In 1949, the Minority Report to the Hoover Commission, with Dean Acheson as a Vice Chairman, commented on the need for coordinated review and management. The 1955 President's Advisory Committee on Water Resources Policy echoed a similar sentiment. "By 1957, after fifty years of relatively futile effort to coordinate natural resources administration, there was a growing belief among students of the problem that something was wrong." Lynton K. Caldwell, Administrative Possibilities for Environmental Control, in F. FRASER DARLING & JOHN P. MILTON, FUTURE ENVIRONMENTS OF NORTH AMERICA: TRANSFORMATION OF A CONTINENT 648, 663 (1966).

proposing a constitutional amendment establishing a constitutional right to a healthful environment.\textsuperscript{74}

II. ECOLOGY BECOMES A PUBLIC POLICY ISSUE

By the early 1960s, concerns provoked by greater ecological awareness had become ripe for political action.\textsuperscript{75} Congress's principal, yet often overlooked, success in passing NEPA was its ability to translate ecology and an integrative approach to resource administration into public policy. Lynton Caldwell, professor of Public and Environmental Affairs at Indiana University, and a prominent participant in this endeavor, later observed "[t]hat Congress intended more in NEPA than impact analysis is evident not only in its text but in its legislative history."\textsuperscript{76} That science and technology could effect dramatic change in our environment became accepted, but ensuring that national policy would be coordinated and promote an environmental ethic was less certain. Too many incidents demonstrated that the federal agencies had not acted with the objective of ensuring sustainability (i.e., protecting our future generations). The true "heart" of NEPA, therefore, is not its requirement of an environmental impact statement or an alternatives analysis, but rather its acceptance of ecology and promotion of an environmental ethic in public policy. As Senator Muskie's Public Works Committee would later observe, "[t]he message which has emerged from these investigations and from all studies of environmental problems . . . is essentially the message of ecology—that we, and all our activities, are integral parts of a natural system."\textsuperscript{77}

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  \item \textsuperscript{74} See Shelton, supra note 43, at 15-150.
  \item \textsuperscript{75} According to Finn, "[t]he activity of the Subcommittee on Science, Research, and Development during 1965–1968 is important to understanding the origin of [NEPA] because the [committee] dealt with concepts in these years that would be discussed in 1969 and enacted in 1970." Finn, supra note 24, at 128. A contemporary participant suggests that it was in 1968 that "Federal policy-makers in both the Legislative and Executive Branches began to perceive the compromise nature of environmental management." DANIEL A. DREYFUS, PAPERS ON THE IMPLEMENTATION OF THE NATIONAL ENVIRONMENTAL POLICY ACT, INTRODUCTION AND SUMMARY 1 (1972) (on file with the DUKE ENVTL. L. & POL’Y F.).
  \item \textsuperscript{76} CALDWELL, THE NATIONAL ENVIRONMENTAL POLICY ACT, supra note 23, at 78–79.
  \item \textsuperscript{77} S. REP. 91-351, 37 (1969). In 1974, one of NEPA’s drafters would tell Yale students that “inherent in modern attitudes toward natural resource management, is a belated realization of the interrelationships among environmental systems.” Daniel A. Dreyfus, Presentation at Yale University: The Changing Nature of Natural Resources Policymaking 12 (Apr. 1974) (on file with DUKE ENVTL. L. & POL’Y F.).
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A. Lynton Keith Caldwell—Advocate

Caldwell became the professorial advocate who alerted Congress about the need to appreciate the new ecology. From 1963 on, "the published output of the field of environmental policy and politics research consisted largely of" Caldwell’s work. In 1963, Caldwell began his campaign to merge the developing field of ecology, and its interdisciplinary focus, with public policy by publishing Environment: A New Focus for Public Policy. Caldwell recognized that, at the time, "widespread skepticism regarding the rationality of having environment as a focus of public policy" existed among his colleagues in the academic community. Caldwell’s actions would underscore his message.

Following up on his earlier article, Caldwell delivered yet another plea for better governmental decision-making, this time at the September 1969 Conservation Foundation meeting at Airlie House. He suggested that "[p]resent ecological and environmental knowledge could enable us to make more and better environmental decisions," and observed that decisions were often at cross-purposes and uncoordinated, with no "well-defined and generally accepted

79. Caldwell, A New Focus, supra note 60. A senior science specialist for the Library of Congress recommended at this same time the centralization of ecological research in a single agency. Finn, supra note 24, at 90–95.
80. Lynton K. Caldwell, Environmental Policy and Research in the “Crisis” of Our Times: 1994, in CALDWELL, supra note 78, at 290. The concept, however, gained traction inside the Administration: Henry Caulfield, for instance, urged Secretary Udall to establish an ecology task force. Finn, supra note 24, at 134.
81. In 1967, Caldwell participated in a congressional seminar on technology assessment and discussed how science could better shape federal policy. Finn, supra note 24, at 176–77. The following year Caldwell edited a symposium on environmental policy and federal action in Public Administration Review, where he addressed both the need for incorporating environmental policy into public administration and the necessity of governmental re-organization. Symposium, Environmental Policy: New Directions in Federal Action; Restructuring For Coordinative Policy and Action, 28 PUB. ADMIN. REV. 301 (1968). In a November 1968 report to the Citizen’s Advisory Committee on Recreation and Natural Beauty, Caldwell also urged the creation of a Council on the Environment in the Executive Office and favored establishing a cabinet level Department of Environment and Natural Resources—building on the oft-discussed reorganization of the Department of the Interior. See Finn, supra note 24, at 301–03. The President’s Council on Recreation and Natural Beauty favored a national environmental policy. See THE PRESIDENT’S COUNCIL ON RECREATION AND NATURAL BEAUTY, FROM SEA TO SHINING SEA: A REPORT ON THE AMERICAN ENVIRONMENT—OUR NATURAL HERITAGE 259 (1968).
82. Caldwell, supra note 72, at 651.
doctrine governing man’s behavior toward his biophysical environment as an environment.” Caldwell lamented that "Government in America has no charge to deal comprehensively with environmental questions; it approaches environmental issues only through some specific environment-affecting responsibility." He concluded that, until "ecological concepts" are "somehow reflected in the public law of the United States, available administrative means for environmental control cannot be utilized with full effectiveness."

B. Senator Scoop Jackson’s Staff

Shortly after Caldwell began his campaign to infuse ecology into public administration, a newly hired special counsel for the Committee on Interior and Insular Affairs, William Van Ness, Jr., was asked by Jerry Verkler, the Staff Director of the Committee, and Sterling Munro, Administrative Assistant to Senator Jackson, "to give some thought to possible ways in which the Committee might become more actively involved in dealing with water pollution and environmental quality problems." This, of course, presented a

83. Id. Caldwell expressed concern that “[t]here is presently no administrative machinery through which comprehensive public environmental policy can be developed and applied.” Id. at 660.

84. Id. at 666. In a book he prepared while assisting Congress's consideration of NEPA, Caldwell wrote, “if modern man and his civilization are to survive, administration of man's environmental relationships must become a major task of government.” LYNTON K. CALDWELL, ENVIRONMENT: A CHALLENGE TO MODERN SOCIETY, at x (1970). Caldwell would later extend this challenge to the need for the international community to protect the biosphere. See generally LYNTON K. CALDWELL, IN DEFENSE OF EARTH: INTERNATIONAL PROTECTION OF THE BIOSPHERE (1972). Caldwell was not alone in making such pleas; Odum and other prominent ecologists submitted a joint questionnaire to the 1968 presidential candidates asking for their views about the environment and public administration. See Memorandum from Lynton K. Caldwell to Editors (July 16, 1968) (on file with the DUKE ENVTL. L. & POL’Y F.).

jurisdictional challenge for the Committee: Senator Muskie's Public Works Subcommittee on Air and Water Pollution had often been perceived as the principal forum for environmental legislation. At the time, Senator Muskie appeared focused on trying to establish a Senate select committee that would concentrate on technology and the human environment. The new ecology, however, conflicted with Congress's committee structure, because the concept of "environment" could not be cabined to any one agency or corresponding congressional committee. And any debate over which committee could capture jurisdiction over the "environment" must be viewed in hindsight, with the knowledge that both Senators Jackson and Muskie would later compete for the Democratic presidential nomination.

On January 4, 1967, Van Ness finished a memorandum to Senator Jackson. The memorandum endorsed "environmental administration," with an emphasis on affording "a new interdisciplinary social science" an opportunity to assist in public administration. He explained that "environment" was a useful, if not
a necessary, focus of public policy and that the time appeared ripe for a legislative proposal.

The fact that there has not been a comprehensive national environmental policy, and that our past institutional arrangements have been better adapted to exploitation of the biophysical environment than to its rational planned use, protective custody and self-renewing development does not mean that there should not or will not in the future be an environmental policy.\(^{92}\)

To accomplish this, Van Ness suggested that the committee first undertake a study of the federal government's role in environmental quality management, with the aid of the Legislative Reference Service and the National Science Foundation, and, later, perhaps convene a joint hearing where the issues could be explored. Either "alone or in conjunction" with these efforts, he added that Senator Jackson could convene a "forum for selected authors and experts in the natural resource and environmental quality areas to express their views."\(^{93}\) This approach, Van Ness believed, would follow Senator Mike Mansfield's efforts to embark on a legislative review and provide an alternative to Senator Muskie's proposal for a select committee.\(^{94}\) Van Ness then attached to the memorandum a draft of proposed legislative language, which he hoped would "bring into focus the overall nature of the environmental quality problems faced by the Nation and provide the research and leadership necessary for their resolution."\(^{95}\) A modified version of this memorandum accompanied Senator Jackson's introduction of proposed legislation in December 1967.\(^{96}\)

C. Senator Jackson and Congressman Dingell Decide to Legislate

By the summer of 1967, Senator Jackson decided to legislate a national environmental policy. He delivered two speeches emphasizing the importance of declaring a national policy on the

\(^{92}\) Id. at Attachment 2, p. 9–10 (Draft of a Proposed Legislative Program on the Problems of “Environmental Quality and the Management of Natural Resources”).

\(^{93}\) Id. at Memo, p. 5.

\(^{94}\) See id. at 3.

\(^{95}\) Id. The proposed language, the Natural Resource and Environmental Quality Research, Planning and Coordination Act of 1967, included five titles, including a modified version of Senator Gaylord Nelson’s S. 2282, Ecological Research and Surveys, 89th Cong. (1965), and Senator Nelson’s bill had incorporated ideas floated earlier by Senator Abraham Ribicoff (D. Conn.). See generally id.

\(^{96}\) 113 CONG. REC. 36,856–57 (1967).
Meanwhile, Senator Jackson's staff requested draft legislation from the Interior Department. His staff elicited the help of Lynton Caldwell through the services of the Conservation Foundation. When Interior's draft finally arrived, Senator Jackson's office asked Senator Gaylord Nelson's office whether he would like to co-sponsor, but Nelson's office declined and instead introduced S. 2282 (Ecological Research and Survey Bill) on December 14. The next day, Senator Jackson introduced the Interior Department's draft bill, S. 2805, with the ranking minority member of the committee as co-sponsor. Finn explains that Van Ness made a political calculation that, if any bill might move forward, it would need to be under the leadership of the more influential Senator Jackson rather than Senator Nelson. Senator Jackson’s remarks upon introducing S. 2805 underscore how the dialogue about environmental policy was changing. He spoke about the need to "insure that present and future generations of Americans will be able to live in and enjoy an environment that is not fraught with hazards to mental and physical well-being" and said that the government could serve the role of "trustee for the environment." In the summer of 1968, Senator Jackson published an essay in Public Administration Review, discussing S. 2805 and the need to establish both a national policy and the institutional means to implement that policy, in order to "meet the threatening deterioration in the quality of our environment.

In July 1968, Senator Jackson, along with George Miller, Chairman of the House Committee on Science and Astronautics, convened a colloquium on the need for a national approach to

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98. Van Ness sought assistance from both Russell Train, then Chairman of the Conservation Foundation, and Lynton Caldwell, and he worked with Caldwell to prepare Senator Jackson’s 1968 essay in the Public Administrative Review on federal activities in the area of environmental quality. Personal Conversation with William Van Ness, supra note 85. See also infra note 103.

99. Finn, supra note 24, at 200–01.

100. Id. at 201, 204.

101. Id. at 205–06. S. 2282 and S. 2805 both failed.

102. 113 CONG. REC. 36,849 (1967).

environmental policy.\footnote{104} The Conservation Foundation would, at the time, refer to it as an environmental “happening.”\footnote{105} Van Ness would later describe the purpose of this colloquium as a “consensus building” exercise to arrive at what the organizers already had determined—the need for a national environmental policy.\footnote{106} In advance of the colloquium, Caldwell and Van Ness prepared a report for the participants, entitled \textit{A National Policy for the Environment},\footnote{107} and the House Subcommittee on Science, Research, and Development issued its report \textit{Managing the Environment};\footnote{108} both

\begin{itemize}
\item 104. Finn explains that Richard Carpenter and Wallace D. Bowman, both from the Legislative Reference Service office, conceived of the colloquium idea and secured Congressmen Daddario’s approval first and then obtained Jackson’s approval. Finn, supra note 24, at 259–62.
\item 105. In Search for National Policy on the Environment, Conservation Foundation Letter (Conservation Found., D.C.), Aug. 12, 1968 (on file with the DUKE ENVTL. L. & POL’Y F.). The letter noted that the colloquium was unique because it included members from different jurisdictional committees.
\item 106. Finn, supra note 24, at 308 (quoting 1971 William Van Ness interview).
\item 107. STAFF OF S. COMM. ON INTERIOR AND INSULAR AFFAIRS, A NATIONAL POLICY FOR THE ENVIRONMENT, A REPORT ON THE NEED FOR A NATIONAL POLICY FOR THE ENVIRONMENT: AN EXPLANATION OF ITS PURPOSE AND CONTENT; AN EXPLORATION OF MEANS TO MAKE IT EFFECTIVE, AND A LISTING OF QUESTIONS IMPLICIT IN ITS ESTABLISHMENT, 90th Cong. (Comm. Print 1968) [hereinafter A NATIONAL POLICY FOR THE ENVIRONMENT]. The Legislative Reference Service also assisted in developing the report, presumably both Carpenter and Bowman were involved. Id. at iv. The report discussed the “new science of ecology,” explaining the need for establishing a national environmental policy and addressing how governmental re-organization was necessary. Id. at 9–11. While the report noted that the “science of ecology can provide many of the principal ingredients for the foundation of a national policy for the environment,” it cautioned that environmental policy includes more than applied ecology, it encompasses “the total needs of man—ethical, esthetic, physical, and intellectual.” Id. at 16. In responding to the report, the National Science Foundation commented that “the paper provides Congress with an outstanding exposition of the ecological view.” Edward S. Deevey, National Science Foundation, to Lynton K. Caldwell (Aug. 12, 1968) (on file with the DUKE ENVTL. L. & POL’Y F.).
\item 108. See MANAGING THE ENVIRONMENT, REPORT OF THE SUBCOMM. ON SCIENCE, RESEARCH, AND DEVELOPMENT, COMMITTEE ON SCIENCE AND ASTRONAUTICS, U.S. HOUSE (1968) [hereinafter MANAGING THE ENVIRONMENT]. Carpenter drafted \textit{Managing the Environment}, purportedly conveying the results of hearings conducted by the Subcommittee on Science, Research, and Development between January and March 1968. The report recommended that a national policy on the environment “be expressed in legislation after due deliberation by both Houses of the Congress,” Id. at 7. And Carpenter further suggested an “Environmental Cabinet,” under the leadership of the Department of the Interior, to “assure conformity of Federal operations with the national policy for the environment.” Id. at 8. His report discussed prior congressional inquiries into the role of science and technology in addressing environmental quality. In chronicling past congressional efforts, he observed, “recognition of the need to deal with the issue of environmental management is widespread in the Congress. New proposals for institutional or organizational changes appear each month.” Id. at 3. He then added, “[a] major lesson is being taught today on the relationship of man and his environment. It is the lesson of systematic ecology or the ‘web of life’”—what he then referred
\end{itemize}
were distributed to colloquium participants. The participants discussed a range of issues, including looming threats to the environment, the positive and negative aspects of technology, and the need for better governmental organization and coordination. The comments at the colloquium reflected a pre-ordained consensus on the need for a national environmental policy and an organizational structure designed to generate, assess and disseminate environmental information. Secretary of the Interior Stewart L. Udall, whose Department many considered to be the agency best suited for overseeing national environmental quality, observed that a national policy—one that would "guide [the] attitude" and conduct of the Federal government—was in sight. He added that the task required obeying the "dictates of ecology, giving this master science a new and central position in the Federal scientific establishment."

These thoughts were then collected in a white paper prepared by Richard Carpenter and Wallace D. Bowman of the Legislative Reference Service, the two who had originally conceived of the colloquium. Although members introduced numerous bills in both the House and Senate during 1968 and 1969, the two principal bills to emerge in 1969 were S. 1075, introduced by Senator Jackson on February 18, 1969, and H.R. 6750, introduced by Congressman Dingell the day before. Senator Jackson introduced S. 1075 shortly after the Santa...
Barbara oil spill, using the spill as a contemporary example to illustrate the importance of addressing environmental issues. S. 1075 resembled the earlier S. 2805, with some changes. Senator Jackson’s remarks on S. 1075 reflect Caldwell’s influence in his crusade to have the government take an active role in environmental management and establish a national environmental policy.113

The Interior Committee scheduled a hearing on S. 1075 for April 16. The day before, Senator Jackson announced that his bill would address one of the most pressing issues of the day: "How should the Federal Government be organized to deal with, to anticipate, and to avoid the adverse consequences of environmental problems."114 And he began the hearing by supporting "a strong declaration of congressional policy on the environment so that the executive branch will know its charter and have a stronger arm."115 Several Administration witnesses testified, mostly focusing on the need for a congressionally mandated independent council in light of President Nixon’s effort to establish an environmental council. The Administration had organized a task force to consider how best to respond to Congress, but Senator Jackson indicated early on that an executively created "revamped Council on Recreation and Natural Beauty" would likely be ineffective.

According to most accounts, it was during the April hearing that Professor Caldwell first introduced the idea of adding an action-forcing mechanism to the policy statement. In his opening remarks, Caldwell stated,

I would urge that in the shaping of such [environmental] policy, it have an action-forcing, operational aspect. When we speak of policy we ought to think of a statement which is so written that it is capable of implementation; that it is not merely a statement of

containing similar provisions. Finn explains that Congressman Dingell “realized that the only committee where his legislation would receive sympathetic consideration was his own, the Committee on Merchant Marine and Fisheries with its Subcommittee on Fisheries and Wildlife Conservation of which he was chairman,” and Dingell accomplished this reference to his committee by referencing the Fish and Wildlife Coordination Act. Finn, supra note 24, at 312–13.


things hoped for; not merely a statement of desirable goals or objectives; but that it is a statement which will compel or reinforce or assist all of these things, the executive agencies in particular, but going beyond this, the Nation as a whole, to take the kind of action which will protect and reinforce what I have called the life support system of this country.

Let me give you just a few illustrations of what I mean by policy-forcing or operational aspect of a policy statement. For example, it seems to me that a statement of policy by the Congress should at least consider measures to require the Federal agencies, in submitting proposals, to contain within the proposals an evaluation of the effect of these proposals upon the state of the environment, that in the licensing procedures of the various agencies such as the Atomic Energy Commission or the Federal Power Commission or the Federal Aviation Agency there should also be, to the extent that there may not now exist fully or adequately, certain requirements with respect to environmental protection, that the Bureau of the Budget should be authorized and directed to particularly scrutinize administrative action and planning with respect to the impact of legislative proposals, and particularly public works proposals on the environment.

Senator Jackson responded:

I am wondering if we might not broaden the policy provision in the bill so as to lay down a general requirement that would be applicable to all agencies that have responsibilities that affect the environment rather than trying to go through agency by agency. . . . I think the immediate example that comes to my mind . . . is that the Atomic Energy Commission, in granting permits or licenses in connection with nuclear powerplants, should be required to make an environmental finding.\footnote{Id. at 116–17. And when Senator Jackson added that “[y]ou see the problem that we are faced with: If we try to go through all of the agencies that are now exercising certain responsibilities pursuant to law in which there is no environmental policy or standard laid out, we could be engaged in a recodification of the Federal statutes for a long, long time,” Caldwell responded that he agreed, because “what we are talking about here in some cases is modifying or amending existing mandates to the agencies.” Id. at 117.}

Senator Jackson concluded this dialogue with Caldwell by asking:

I . . . will be calling on you for some specific language to implement what we have discussed here this afternoon. It seems to me that the policy problem falls into two categories: First, a broad statement of environmental policy that would apply to all of the governmental departments, with the Bureau of the Budget in a position to stipulate that when proposals come over, that they must meet certain environmental policies and standards.

I think the other area relates to quasi-judicial proceedings where independent agencies are in a position to grant permits and licenses for activities that potentially have an enormous impact on the environment. Perhaps we could work out some kind of a general statutory provision that would be applicable to all quasi-judicial proceedings.

\footnote{Id. at 121.}
But there may well be more to the story. The concept of adding an action-forcing mechanism and a consideration of alternatives had surfaced earlier. Indeed, Senator Jackson had invoked the concept of action-forcing mechanisms in other contexts, and he recognized the need for an action-forcing mechanism in NEPA before Professor Caldwell's testimony. And while it is generally understood that section 102 as it later surfaced was drafted primarily by Van Ness and Daniel Dreyfus, a professional staff member on the Committee, Van Ness recalls that both he and Dreyfus prepared Caldwell for this hearing and effectively scripted the dialogue.

The months following the April 16 hearing affirmed the Senate Interior Committee's legislative strategy. Although the media apparently sat comfortably on the sidelines, Senator Jackson and his staff concluded that passage of legislation was possible. By May 29, 1969, when President Nixon issued Executive Order No. 11472 establishing an environmental quality council, Senator Jackson reportedly understood that the Administration—still publically opposed to an independent environmental council—would not veto his legislation. Senator Jackson, therefore, released an amended

117. Richard Liroff notes that the committee staff already had been considering the idea of some action forcing mechanism, and that Professor Caldwell “lent new impetus to their considerations.” LIROFF, supra note 23, at 16. During the 1968 colloquium, for instance, Russell Train commented that Congress should “look at the process and try to develop in our decision-making processes [a recognition of] . . . the complex interrelationships of the problems we have been talking about, so that the highway planner does not only look at the engineering aspects but also at the sociological, if you will, among others.” Joint House-Senate Colloquium to Discuss a National Policy for the Environment, Hearing Before the S. Comm. on Interior and Insular Affairs and the H. Comm. on Science and Astronautics, 90th Cong. 81 (1968). Senator Jackson had earlier raised, but did not discuss, the idea of some action-forcing mechanism. See id. at 60. Finn’s interviews with Caldwell, Carpenter and Van Ness confirm that the colloquium anticipated the need for some mechanism for implementing the mandate. Finn, supra note 24, at 277.

118. In the Congressional White Paper prepared after the summer 1968 colloquium, Richard Carpenter and Wallace Bowman (of the Legislative Reference Service) noted that “activities should proceed only after an ecological analysis and projection of probable effects,” along with the generation of alternatives. CONGRESSIONAL WHITE PAPER, supra note 111, at 16. Bowman had worked with Lynton Caldwell at the Conservation Foundation before joining the Library of Congress. See CALDWELL, ENVIRONMENT, supra note 84, at xvi. Bowman also supplied Van Ness with information about Caldwell, as well as a 32 page “strip list” bibliography on environmental quality. Note from W. Bowman, Legislative Reference Serv., to William Van Ness (Mar. 17, 1969) (on file with the DUKE ENVTL. L. & POL’Y F.).


120. Id.

121. Finn explains that the congressional staff unsuccessfully reached out to the media. Finn, supra note 24, at 422 (referencing interviews).

version of S. 1075,\textsuperscript{123} incorporating concepts that surfaced during the April hearing as well as in further discussions with the Administration.\textsuperscript{124} In particular, Van Ness added the policy statement and the language providing a right to a healthful environment, while Dreyfus drafted the language requiring a "finding" regarding the environmental impact by a responsible official, along with, inter alia, an analysis of appropriate alternatives to the proposed action.\textsuperscript{125} When describing the policy statement, Senator Jackson emphasized that the language was not hortatory; the language was intended to operate as a "mandate" to federal agencies to afford "substantive attention" to environmental priorities.\textsuperscript{126}

The importance of the policy statement permeates the Committee Report drafted by Jackson’s staff.\textsuperscript{127} The report observed that, in order "[t]o provide a basis for advancing the public interest, a congressional statement is required of the evolving national objectives of managing our physical surroundings, our land, air, water, open space, and other natural resources and environmental

\textsuperscript{123} Senator Jackson asked Senator Mansfield to introduce the amended language on May 29, 1969, although the language was not reprinted in the Congressional Record until June 5, 1969. See 115 Cong. Rec. 14,860 (1969).

\textsuperscript{124} After the April 1969 hearing, for example, an informal White House task force headed by Dr. Henry J. Kellerman, a State Department official, provided useful comments, including a recommendation that Congress consider language providing citizens with a right to a healthful environment. See Finn, supra note 24, at 288–94, 427, 430. In a June 16, 1969 memorandum to their boss, Senator Jackson’s staff explained that they worked with the President’s Science Advisor’s staff as well as other executive agencies to draft the policy statement. Memorandum from William Van Ness and Dan Dreyfus to Senator Henry M. Jackson, Re: S. 1075, To Establish a National Policy for the Environment 4 (June 16, 1969) (on file with the DUKE ENVT. L. & POL’Y F.). See also S. Rep. No. 91-296, at 34 (1969) ("I do believe such a policy statement would be useful") (letter of Lee A. DuBridge, Director of the Office of Science and Technology). On June 18, the Interior Committee met in executive session and reported out S. 1075 with certain amendments. Id. at 11.

\textsuperscript{125} Finn, supra note 24, at 423–29.

\textsuperscript{126} A statement of environmental policy is more than a statement of what we believe as a people and as a nation. It establishes priorities and gives expression to our national goals and aspirations. It serves a constitutional function in that people may refer to it for guidance in making decisions where environmental values are found to be in conflict with other values. Id. Reporting on Senator Jackson’s efforts, reporter Robert Cahn observed that the proposal would “grant new authority when needed to federal agencies to manage and protect the environment.” Id. at 14,861. Indeed, the Committee Report noted that the policy statement would rectify those instances where an agency’s mandate had been interpreted narrowly to exclude environmental considerations. S. Rep. No. 91-296, at 9. And the action-forcing procedures in § 102 of S. 1075 were intended “to ensure that the policies enunciated in section 101 are implemented.” Id. at 19.

\textsuperscript{127} Finn, supra note 24, at 444.
The purpose of S. 1075, according to the Committee, "is 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 the environment."

The Committee Report also reflects the committee's work with the executive branch between April and July. To begin with, the Administration accepted the concept of having a policy statement. The Administration had two primary recommendations for Title I of S. 1075. First, the Administration recommended adding the language "to the fullest extent possible" to the requirement that all policies, regulations, and laws be interpreted and administered in accordance with the policy statement. The second recommendation was to change the requirement for environmental impact analysis from "every recommendation or report on proposals for legislation or other significant federal actions affecting the quality of the human environment" to "every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment." Van Ness and Dreyfus apparently negotiated both of these changes with the Administration.

129. Id. at 8. The following passage illustrates that the Committee afforded significance to the policy statement:

The challenge of environmental management is, in essence, a challenge of modern man to himself. The principal threats to the environment and the Nation’s life support system are those that man has himself induced in the pursuit of material wealth, greater productivity, and other important values. These threats—whether in the form of pollution, crowding, ugliness, or in some other form—were not achieved intentionally. They were the spinoff, the fallout, and the unanticipated consequences which resulted from the pursuit of narrower, more immediate goals.

The purpose of S. 1075 is, therefore, to establish a national policy designed to cope with environmental crisis, present or impending. The measure is designed to supplement existing, but narrow and fractionated, congressional declarations of environmental policy.

Id. at 8–9.
130. The Director of the Bureau of the Budget for the Nixon Administration formally endorsed the utility of such a policy statement in a letter to Senator Jackson on July 7, 1969, although agreeing with Senator Muskie’s staff that there already was a “large body of policy” on the environment. Letter from Robert P. Mayo, Dir., Bureau of the Budget, to Hon. Henry M. Jackson, July 7, 1969, reprinted in S. REP. NO. 91-296, at 28. Finn explains that the principal disagreement with the Administration involved the creation of an independent council. Finn, supra note 24, at 440–46. The New York Times similarly viewed this as the principal disagreement, involving how best to coordinate environmental policy in the government. E. W. Kenworthy, Challenge by Democrats, N.Y. TIMES, Jan. 2, 1970, at 12.
because the July 9 Committee Report already incorporated the Administration's recommendations.\footnote{132}

D. Clash of the Titans: The Fall of 1969

NEPA’s prospect for passage, however, would soon become sealed in how the two would-be Democratic presidential contenders and their senate committees would deploy their power. Senator Muskie and his Public Works Committee became the bill’s penultimate hurdle. Not until the summer of 1969, did Senator Muskie or his staff become meaningfully interested in an environmental policy act. Their primary interest focused on air and water pollution legislation.\footnote{133} But with the legislation gaining momentum, the Public Works Committee—apparently at the instigation of its minority counsel—became jealous of losing jurisdiction over environmental issues and expressed concern about the merits of the legislation.\footnote{134} Senator Muskie’s committee, particularly Minority Counsel Tom Jorling, believed that the Public Works Committee had jurisdiction to address environmental matters.

The first of several significant meetings occurred on July 7, between the staffs of the two committees.\footnote{135} The first meeting, Finn explains, “is crucial to an understanding of the passage of [NEPA] because it shaped the subsequent events surrounding S. 1075.”\footnote{136} But what exactly occurred at the meeting remains uncertain. The Public Works Committee apparently expressed several concerns with what the Interior Committee had done. The Public Works Committee apparently expected that it could provide Senator Jackson with a list of specific issues and that no action would occur until at least the end of the week.\footnote{137}

\footnote{132. S. REP. NO. 91-926, at 2. Van Ness later referenced the committee’s apparently productive discussions with the Administration. \textit{See Memorandum, Alternative Proposals and Strategies for the Enactment of Legislation Establishing a National Policy for the Environment} 4 (Sept. 24, 1969) (on file with DUKE ENVTL. L & POL’Y F.). Although Finn suggests that these changes by the Administration, including the insertion of the word “major,” made the language more restrictive, Finn, \textit{supra} note 24, at 436–39, Van Ness recalls that this addition was not intended to change the requirement in any meaningful manner. Personal Conversation with William Van Ness, \textit{supra} note 85.}
\footnote{133. Finn, \textit{supra} note 24, at 446.}
\footnote{134. \textit{Id.} at 447–48.}
\footnote{135. \textit{Id.} at 454.}
\footnote{136. \textit{Id.} at 455.}
\footnote{137. \textit{Id.} at 455–56.}
Senator Muskie and his committee, in particular, voiced several reservations with Senator Jackson’s proposal, in addition to objecting to Senator Jackson’s alleged effort to usurp the Public Works Committee’s jurisdiction. Surprisingly, the Public Works staff opposed the “environmental right” language. The counsel to the Public Works Committee expressed concern that the provision might permit citizens to sue without, for instance, establishing any personal injury. As of late 1969, the modern concept of standing had yet to emerge. Judicial review of agency decisions under the APA was still in its pre-1970s form, and the idea of an express citizen suit provision allowing suits against private parties was just over the horizon. Senator Muskie (or the Senator at the urging of this staff) apparently objected to having federal agencies police themselves by preparing their own environmental documents. He believed that a separate environmental agency was necessary to implement such programs. Indeed, Muskie’s staff appeared concerned that the § 102 process might allow an agency to ignore the mandate and permit an action to go forward because of other considerations. The staff further feared that the § 102 process might preempt what would become § 401 of the CWA. And they expressed concern about the lack of specificity in the § 102 process, which had been drafted by Dreyfus and presumably modeled after the water resources project review procedure.
much is understood about what was expected from the § 102 process, other than that the environmental statements would accompany a proposal throughout its process and possibly all the way to the Bureau of Budget, if need be.\footnote{Finn, \textit{supra} note 24. At 469–71. Van Ness was skeptical that the Bureau of Budget was capable of reviewing environmental documents. \textit{Id.} at 461.}

Purportedly to avoid delaying consideration of S. 1075 until after a potentially protracted debate on antiballistic missiles,\footnote{\textit{Id.} at 459–60.} Senator Jackson reported his bill out of committee on July 10, with the Senate then passing it quickly without much discussion—even to the surprise of Lynton Caldwell.\footnote{\textit{Id.} at 457–58.} Although Van Ness later indicated that he thought Senator Jackson honored the July 7th agreement with Senator Muskie, Senator Muskie and his committee staff believed otherwise.\footnote{\textit{Id.} at 458. In the records I reviewed, only bleak references exist regarding meetings during this period with Senators Randolph and Jackson, and with the Staff Director of the Public Works Committee. Memorandum from William Van Ness to Senator Henry M. Jackson, \textit{supra} note 73, at 4.}

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The § 102 process also mirrors, in some respects, the movement for a technology assessment urged by Congressman Emilio Daddario, a strong supporter of NEPA in the House and an organizer of the 1968 colloquium. Finn, \textit{supra} note 24, at 259–62. See J.G. Speth, \textit{The Federal Role in Technology Assessment and Control, in Federal Environmental Law} 420, 432–34 (Erica L. Dolgin & Thomas G. P. Guilbert eds., 1974). See also Finn, \textit{supra} note 24, at 95–109 (describing the 1967–68 congressional inquiry into the need for a technology assessment). Technology, after all, had prompted “man’s ability to change aspects of the natural world” and by the 1960’s it became “commonplace that under the pressure of modern technology and increased population, some of the changes in the environment, if extended, seriously threaten man’s continued existence in that environment.” Robert E. Light, \textit{Unanticipated Environmental Hazards}, 161 \textit{Science} 1365, 1365 (1968) (announcing a prominent symposium).

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The bill was referred to the House of Representatives, which had already conducted hearings on Congressman Dingell's bill. Wayne Aspinall became the House's principal opponent, expressing concern that the bill might affect all federal agencies and amend existing laws. This is precisely how the bill was understood by its proponents. Time Magazine described the draft bill as "sweeping," noting that it would "require Congress and every federal agency to interpret all federal laws, policies and regulations in terms of a new national goal—safeguarding and enhancing the physical environment." On August 28, Aspinall outlined his objections in a letter to Congressman Dingell, concerned that the bill would amend existing laws to increase an agency's authority to require environmental responsibility. Dingell reluctantly responded to these concerns for fear of losing jurisdiction over the bill.

On September 23, 1969, after the House passed H.R. 12,549, a slightly modified and cleaned up version of H.R. 6750 (originally introduced by Congressman Dingell), the House then passed the

149. Congressman Dingell's 1969 bill H.R.6750, included the reference to the Fish and Wildlife Coordination Act, see supra note 71, and focused on establishing a council on environmental quality, but it did not contain any requirement for an impact statement and included only a short pronouncement on environmental policy. See LIROFF, supra note 23, at 21, 23. It also proposed establishing an independent environmental council (in lieu of President Nixon's effort to create a more politically malleable council through an executive order). The Administration's testimony on H.R. 6750 appears inconsistent. Finn, supra note 24, at 328–32. Indeed, one of the witnesses, Russell B. Train, later the first Chairman of the Council on Environmental Quality, testified, and undoubtedly Congressman Dingell knew of Train's personal views. See RUSSELL E. TRAIN, POLITICS, POLLUTION AND PANDAS: AN ENVIRONMENTAL MEMOIR 69–70 (2003). As early as 1965, Train encouraged establishing a Council of Ecological Advisors “having a strong ecological orientation.” Id. at 50. President Nixon's science advisor, Lee A. DuBridge, opposed the council. Finn, supra note 24, at 335–43. But cf. id at 441 (DuBridge later suggesting that he did not oppose such a council). When Dingell's subcommittee reported out its bill, the committee agreed to re-introduce a new “clean” bill on July 11, H.R. 12,549, with additional cosponsors. Id. at 345, 351. Congressman Dingell also engaged in a tactical effort to ensure that Senator Jackson's bill would go to his committee when it arrived in the House: he had Congressman Lucien N. Nedzi introduce a slightly modified version of Senator Jackson's bill and then coordinated with the House Parliamentarian. Id. at 347–49. By August, Congressman Wayne Aspinall of the House Interior committee expressed concern over his committee's loss of jurisdiction. Id. at 352–54.

150. Id. at 353–55.
151. See id. at 354.
154. Id. at 361, 368.
155. See id. at 361–75 (describing actions in the House). Congressman Daddario noted his concern that H.R. 12,549 omitted the critical language in the Jackson bill on the policy
Senate's bill as amended to reflect the House-agreed-upon language in H.R. 12,549. The House then appointed as conferees members from Aspinall's Interior Committee and Dingell's Merchant Marine Committee.

But when H.R. 12,549 arrived back in the Senate, it confronted an escalating interest by Senator Muskie and his committee. Shortly after Senator Jackson passed S. 1075, Senator Muskie initiated efforts in August to move his own bill, S. 2391, aware that the matter would come back before the Senate once the House acted. In an executive session of the Public Works Committee, Muskie incorporated S. 2391 into S. 7, which the Committee reported shortly thereafter. At this point, Senator Muskie signaled an intention to block convening a conference, possibly affording him time to pass S. 7. Tensions mounted between the principals and the two committee staffs, particularly among Van Ness, Jorling, and Billings, and also later between Dingell and Muskie. Of the staff, only Van Ness really had independence. Muskie prepared for a public confrontation, while Jackson successfully solicited support from environmental groups.

In several memos, the Public Works Committee, fearful of losing jurisdiction over environmental issues, raised objections to S. 1075, including questioning the policy statement, the environmental mandate, and the provision for an environmental right. For Senator Muskie, Leon Billings floated some possible compromise amendments—although the amendments would have eliminated § 102 of Title I and Title II of S. 1075.

The night before the scheduled meeting between the House and Senate conferees, Senator Jackson's staff met with the members of the Public Works Committee to develop a compromise using S. 1075 and Title II of S. 7 and left believing they had an agreement. That statement, and he expressed little appreciation for Congressman Dingell's insistence on an environmental council. 

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156. *Id.* at 373.
157. *Id.* at 374.
158. *Id.* at 472–73.
159. *Id.* at 473.
160. *Id.* at 474.
161. *See id.* at 476–77. The fight was more a result of conflicts between committees than between parties. *Id.* at 485.
162. *Id.* at 477–78.
163. *Id.* at 482.
164. *Id.* at 485–86.
165. Van Ness informed Senator Jackson that he was to meet with the Public Works
agreement apparently evaporated the next day, as the Public Works Committee sought to have the compromise developed through a procedure that would precipitate further delay. Van Ness counseled the Senator against this approach, noting that it was not what had been agreed to, that it could delay the vote, and that "the House has not been in a position where they have gone on record on the strong environmental provisions. Thus, it is probably best to work out a strong bill in conference and place the House in the position of voting Yea or Nay on the Conference Report." Van Ness believed that the House language was "inadequate" and favored securing "Congressional enactment of a strong, meaningful national policy for the environment." He further defended a challenge to the Senate Interior Committee's jurisdiction:

The measure is general in nature and is directed at all agencies of Federal government. The bill is directed at planning, policy making, research and Federal overview capabilities on all resources and environmental trends—recreational, loss of natural beauty, land-use, water and mineral resource development, population, congestion, noise, urban sprawl, transportation systems, pollution, and industrial growth,—which threaten a quality life in quality surroundings.

The particular trends and problems involve the jurisdiction of virtually all of the Committees of the Congress. The purpose of S.
1075 is to state general goals to guide Federal agencies and officials, to state a general policy for officials to follow, and to establish a new institution to provide an overview of the impact that undesirable trends have on the quality of life and the quality of America's total environment.¹⁶⁸

During this conference committee meeting, Senator Muskie, although not on the conference committee,¹⁶⁹ raised a concern that S. 1075 might detract from his pending Water Quality Improvement Act, which required a state water quality certification as a condition to the issuance of a federal license or permit. S. 1075 required "findings" by a federal agency, and Senator Muskie sought to avoid a conflict between a federal agency issuing findings related to water quality and any state's determination regarding the impact of the proposed licensed or permitted activity on water quality.¹⁷⁰

At the request of Senator Muskie, Leon Billings reportedly prepared amendments and remarks in anticipation of a public confrontation between Senators Muskie and Jackson. Of particular importance, Finn explains that Billings objected to S. 1075's policy statement and remained concerned with establishing an environmental mandate that he believed had been prepared "in haste or in darkness."¹⁷¹ Senator Muskie also believed that it was important not to let agencies police themselves on environmental matters, and the conference further recommended solicitation of comments on proposed actions by other air and water pollution control agencies.

This led to a publicized clash between Muskie and Jackson, as well as a need to reconcile differences between the Senate and House bills. On September 29, the Washington Post reported that the dispute

¹⁶⁸ Memorandum from William Van Ness to Senator Henry M. Jackson, supra note 73, at 8.

¹⁶⁹ Van Ness had recommended to Senator Jackson that he invite two members from the Public Works Committee to attend the House/Senate Conference, and he also suggested that he join with Senators Muskie and Randolph to establish a Joint Committee on the Environment to avoid future jurisdictional concerns. Memorandum from William Van Ness to Senator Henry M. Jackson, supra note 165, at 3–4. Three days later Van Ness repeated the suggestion that future jurisdictional disputes could be resolved by a joint environmental committee. Memorandum, supra note 132, at 3. Senator Muskie's staff purportedly understood that the Public Works Committee could have two conferees attend the House/Senate conference on S. 1075. Finn, supra note 24, at 486 (referring to memorandum from Leon Billings).

¹⁷⁰ The final language of NEPA, § 104, provides that it shall not “in any way affect the specific statutory obligations of any Federal agency (1) to comply with criteria or standards of environmental quality, (2) to coordinate or consult with any other Federal or State agency, or (3) to act, or refrain from acting contingent upon the recommendations or certification of any other Federal or State agency.” 42 U.S.C. § 4334 (2006).

¹⁷¹ Finn, supra note 24, at 496.
between Muskie and Jackson was less over substance and more over "which Senate units should have jurisdiction over general environmental questions." The *Washington Post* further noted that Senator Muskie's pending water pollution legislation included a title creating an office of environmental quality in the executive office, which appeared similar to Jackson's Board of Environmental Advisors. The *Sunday Star* similarly reported, in early October, on the conflict between the two senators, precipitously suggesting that an agreement had been reached.

In preparation for the October meeting, Van Ness prepared an analysis for Senator Jackson. This analysis noted that S. 7 would not likely be supported by the President, that S. 1075 was a stronger bill, two years in the making, and that "[a] National policy for the environment should be enacted as a separate act and not as an amendment to a measure on a related matter." This echoed Van Ness's earlier counsel to Senator Jackson, where he observed that S. 1075 was stronger than S. 7, in part because it (a) recognizes that all persons have a right to a healthful environment; (b) "[a]mends the basic enabling legislation of all Federal agencies and programs to make clear that a basic goal of the government and a basic responsibility of every agency is the preservation, protection and enhancement of the environment"; and (c) "[e]stablishes a set of broad national goals for the guidance of all agencies and officials of the Federal government." He further added that Senator Muskie's committee would not likely accept a "strong bill in conference on S. 7."


175. Memorandum from William Van Ness files (undated) (on file with the DUKE ENVTL. & POL’Y F.).

176. Memorandum from William Van Ness to Senator Henry M. Jackson, *supra* note 166, at 2. The memo further adds that S. 1075 "sets forth, in explicit language, a requirement that findings must be made by appropriate officials and agencies on all decisions and actions significantly affecting the quality of the human environment." *Id.*

177. *Id.*
The two senators averted a floor fight by reaching what has since been dubbed the October Compromise. This "compromise," however, entailed more form than substance, and it did not weaken S. 1075. When Senator Muskie initiated floor discussions on S. 7, his water pollution bill included a modified title (Title II), incorporating aspects of S. 1075; and his remarks on Title II focused primarily on the various environmental bills considered by the Public Works Committee and he emphasized the importance of states acting first in the environmental area. Rather than confronting any objections to S. 1075, Senator Muskie instead talked generally about the need to address and incorporate environmental considerations into the consideration of public works projects and programs, and further added that an independent office within the Executive Office "is crucial to the effective coordination and administration of all Federal programs in line with the Nation's policy of environmental enhancement."

For the compromise that unfolded on October 8, 1969, the conference committee presented to the Senate an agreed upon substituted S. 1075 and sought to have the Senate instruct its conferees to insist upon the language of the substituted S. 1075. S. 1075, as modified, included a requirement in § 102 for a "detailed statement" in lieu of "findings." Next, it "explicitly" clarified Senator Jackson's pre-existing intention not to interfere with Senator Muskie's effort in S. 7 to require water quality certifications. It also created an organizational structure that "marr[ied]" Senator Muskie's Office of Environmental Quality in S. 7 with Senator Jackson's Board of Environmental Quality Advisors. Substituted S. 1075 further

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178. E.g., Finn, supra note 24, at 492–511; Lindstrom, supra note 22, at 44–47; LIROFF, supra note 23, at 18–19.
180. Id. at 28,956. Muskie explained that “[n]o Federal department or agency which is not primarily oriented to environmental matters can be expected to have either the sufficient expertise or the proper perspective to evaluate their own programs”. Id. See also id. at 29,053 (objecting to self-policing). Of course, this is precisely what Senator Jackson was attempting to do—effectively build into each agency a mandate and recognition for considering environmental effects of their activities.
181. See id. at 29,054.
182. Liross would later suggest that, based on his interviews of the participants, the change from "findings" to a "statement" may have enhanced "the potential role of judicial review." Letter from Richard Liross, Envtl. L. Inst., to Helen Ingram (Oct. 10, 1975) (on file with the DUKE ENVTL. L. & POL’Y F.).
184. Id. at 29,062. The new organizational structure prompted an awkward exchange.
required that the "detailed statements" be distributed for comment to the appropriate "agencies with jurisdiction and special expertise" in the area, and "be made available to the President, the Board and the public."\footnote{185} That these changes were agreed upon or appear minor underscores the actual underlying dispute—the legislative battle for jurisdiction over ecology—which Senator Jackson would win in this instance.\footnote{186} The compromise, in sum, most likely occurred because Senator Jackson agreed not only to publicly support a new joint committee\footnote{187} but also to have the annual reports by the Board "transmitted . . . to the [congressional] committees which traditionally have exercised jurisdiction over the environmental subject matter contained therein."\footnote{188}

Three primary issues lingered as the conferees concluded their work in the remaining two months.\footnote{189} To begin with, Congressman Aspinall targeted the provision securing an environmental right and he remained concerned with section 102 and potential conflicts with between Senators Muskie and Allott, with Allott noting that he had not agreed to this compromise and questioning the wisdom of what he described as an "administrative two-headed monster." \textit{Id.} at 29,061. Allott objected to creating, in addition to President Nixon's newly created Council on Environmental Quality, yet another Office of Environmental Quality as well as another legislatively-created environmental board. \textit{Id.} Another issue that required resolution prior to NEPA's passage centered around the Citizens Advisory Committee on Environmental Quality created in President Nixon's May 29, 1969 Executive Order No. 11472. Laurance Rockefeller chaired this committee and sought from Senator Jackson legislative protection and continuation of this committee. \textit{See} Letter from Henry L. Diamond to William Van Ness (Oct. 23, 1969) (on file with Duke Envtl. L. & Pol'y F.). This would become § 205(1) of NEPA. \textsc{42 U.S.C.} § 4345.\footnote{185} 115 \textsc{Cong. Rec.} 29,058 (1969). When implementing NEPA, CEQ issued a memorandum on June 3, 1970 interpreting and applying this requirement. Council on Envtl. Quality, Memorandum, Re: Federal Agencies with "Jurisdiction by Law or Special Expertise" to Make Comments with Respect to Various Types of Environmental Impact of Proposed Actions (June 3, 1970) (on file with Duke Envtl. L. & Pol’y F.). \textit{Id.} Another issue that required resolution prior to NEPA's passage centered around the Citizens Advisory Committee on Environmental Quality created in President Nixon's May 29, 1969 Executive Order No. 11472. Laurance Rockefeller chaired this committee and sought from Senator Jackson legislative protection and continuation of this committee. \textit{See} Letter from Henry L. Diamond to William Van Ness (Oct. 23, 1969) (on file with Duke Envtl. L. & Pol’y F.). This would become § 205(1) of NEPA. \textsc{42 U.S.C.} § 4345.\footnote{185} 115 \textsc{Cong. Rec.} 29,058 (1969).\footnote{186} Senator Jackson would report that S. 1075 “would remain relatively unchanged.” 115 \textsc{Cong. Rec.} 29,055 (1969).\footnote{187} \textit{Id.} (Senator Jackson informed the Senate that “the next logical step” is to have a “joint committee”). Earlier, Senator Jackson had informed Senator Muskie that he supported exploring the possibility of establishing a joint committee. Letter from Jerry T. Verkler to Senator Henry M. Jackson (Sept. 23, 1969) (on file with the Duke Envtl. L. & Pol’y F.) (minutes of meeting on S. Res. 78). The importance of this dispute should not be understated. “Environment,” as Senator Jackson explained, no longer could be viewed as merely pollution control, it included all facets of human society, including economics, land use (both public and private), quality of life, etc.—in short, what the emerging study of ecology was attempting to persuade Congress. 115 \textsc{Cong. Rec.} 29,055 (1969). This emerging broader understanding of “environment” necessarily conflicted with how Congress had established its committees—a problem that arguably continues to this day.\footnote{188} 115 \textsc{Cong. Rec.} 29,051 (1969).\footnote{189} \textit{See} Finn, \textit{supra} note 24, at 511–67.
specific agency directives under existing law. Second, Senator Allott had questions about soliciting input from other federal and state agencies and paperwork holding up federal proposals. Finally, Senator Muskie, Congressman Dingell, and Congressman Aspinall voiced reservations regarding the appropriate recipients for the submission to Congress of the environmental report by the CEQ. A December 8, 1969 staff memo to Senator Jackson outlined a resolution to each of these issues—the last issue apparently involving a disagreement between Congressmen Aspinall and Dingell, while an agreement had already been reached with Senator Muskie.

Senator Jackson's staff explained that Congressman Aspinall’s concern had been addressed by adding the phrase "to the fullest extent possible" into section 102—a phrase already included in the Senate–passed version of the bill. But Van Ness added that the phrase was not intended to detract from the bill’s mandate:

The purpose of the new language is to make clear that if existing law applicable to an agency's operations expressly prohibits or makes full compliance with one of the directives set in subsections (a) through (h) impossible, then compliance with that particular directive is not immediately required.

In return for adding the language already included in the Senate version, the House agreed to delete the more restrictive language that would have provided that “nothing in this Act shall increase, decrease or change any responsibility or authority of any Federal official or agency created by other provision of law.” When coupled with § 105


191. Id. In a subsequent memorandum, Van Ness indicated that, in any conversations with Senator Muskie, it should be “emphasized” that the Senate Conferees were successful far “exceed[ing] reasonable expectations” in securing “approval of the major provisions of S. 1075 as well as virtually all of the language agreed to on the Senate floor.” Memorandum from William Van Ness to Senator Henry M. Jackson (Dec. 9, 1969) (on file with the DUKE ENVTL. L. & POL'Y F.). Van Ness also had drafted a statement for the Senator that would have explained that the annual environmental report would be submitted to all appropriate congressional committees, but this part was omitted from Senator Jackson’s published statement. See Memorandum from William Van Ness files (undated) (on file with author). Earlier, Van Ness had informed Senator Jackson that the concern about the annual report’s submission to Congress had been resolved, as had been Senator Muskie’s concern about any potential conflict with § 16 and other provisions of the water bill. Memorandum from William Van Ness to Senator Henry M. Jackson, supra, at 2 (Dec. 9, 1969).


of the bill, Van Ness further informed Senator Jackson that the language would supplement existing agency authorities, and only in "instances of clear conflict or impossibility" could an agency avoid complying with one of the specific directives. 194 In short, according to the language in the final Conference Report, the bill would not "repeal" existing law in those limited circumstances where such a direct conflict or impossibility exists. 195

Ultimately, the Conference Committee reported out its recommendation in December. One observer reported that the bill that emerged out of the conference was "much stronger" than expected, with Senator Jackson and Congressman Dingell having fought "doggedly throughout the conference." 196 In his remarks to the Senate, Jackson focused primarily on NEPA's policy statement and goals as well as the establishment of the CEQ. He lamented the decision to remove the "fundamental" and "inalienable" right of citizens to a healthful environment—what at the time was perceived as a citizen suit provision. He alerted Congress that after NEPA became law he would offer "a detailed congressional declaration of a statutory bill of environmental right." 197 But nothing that occurred between October and December diminished Senator Jackson's "declaration" in NEPA.

that we do not intend, as a government or as a people, to initiate actions which endanger the continued existence or the health of mankind. That we will not intentionally initiate actions which will do irreparable damage to the resources which support life on earth. 198

195. H.R. REP. NO. 91-765, at 10. In describing §§ 102 through 105, the conferees clearly indicated that agencies would need to "conduct their activities in accordance with the provisions of the bill," but that the bill would not allow agencies to violate otherwise clearly expressed congressional directives. Id. at 8–10. An exhibit drafted by Van Ness and attached to Senator Jackson’s remarks on S. 1075, as modified, repeated this understanding of the change in language. 115 CONG. REC. 40,418 (1969).
198. Id. at 29,056. See also id. at 29,055 ("will prevent instances of environmental abuse and degradation caused by Federal actions before they get off the planning board"); id. at 29,056 ("give all agencies a mandate, a responsibility, and a meaningful tool to ensure that the quality of America’s future environment is as good or better than today’s").
Both houses then passed the legislation, which President Nixon signed on January 1, 1970. The next day, the New York Times reported that Senator Jackson had "maneuvered . . . diligently" in securing passage of what it termed a Pollution Control Bill.

III. THE NEW MAGNA CARTA

It would be a mistake to suggest that Congress's decision to establish a national environmental policy occurred either precipitously or without considerable deliberation. NEPA's journey began before Van Ness's January 1967 memorandum. It began with ecologists' efforts to convince policymakers of the need to appreciate the "new" science and the urgency of addressing the pressing threats to our planet. Only months after President Nixon signed NEPA into law, Eugene Odum would write, "the public entry into the 'ecology movement' is a natural and predictable response that has been in the making for some time."

Another commentator proclaimed that it "is heartening that the word 'ecology' has taken on meaning throughout the nation, and indeed a good part of the world." Of course, ecology's acceptance into the political arena prompted Paul Ehrlich to observe that "most politicians, as well as a wide variety of physicists and engineers who advise politicians, do not have the vaguest notion what ecology is all about."

Those members of Congress who were paying attention, however, fully appreciated what Congress had accomplished; through

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199. See id. at 40,427, 40,928 (1969) (adoption of Conference Report); H. REP. NO 91-765, at 1.
204. Shelton, supra note 43, at 322–23 (quoting Paul Ehrlich, We're Standing on the Edge of the Earth, NAT'L WILDLIFE, Oct.–Nov. 1970, at 16). And while readers of Government Executive were told that "ecology . . . is here to stay," they were equally informed that "[t]he ecology field is such complex virgin soil that not even such experts as there are can say with any degree of assurance that a given policy or program will have a desired effect—or even which agency should have jurisdiction over which activity." Samuel Stafford, Federal Pollution Attack Gains Steam, But Long-Term Outlook Remains Cloudy, GOV'T EXECUTIVE, Sept. 1970, at 51 (on file with the DUKE ENVTL. L. & POL'Y F.).
the leadership of Senator Jackson and Congressman Dingell, and with a legislative strategy artfully developed by Senator Jackson's staff and assisted by Caldwell and Bowman and Carpenter of the Legislative Reference Service, it solidified a national policy—a mandate for environmentally sound decisions.\footnote{205} In May 1970, Senator Jackson wrote, "[t]he Act makes a concern for environmental values and amenities a part of the charter of every agency of the federal government.\footnote{206} The Act furthered this mandate by creating an executive office specifically designed to coordinate the new environmental management agenda.\footnote{207} In a sentiment endorsed by Senator Jackson, staffer Dan Dreyfus explained that NEPA would "establish the environment as a top-level organizational and managerial concept in the executive branch.\footnote{208} This mandate does not require arresting development; it expressly recognizes that humans and human development are part of environmental quality, but it does suggest that agencies must employ ecological principles—however murky the concept—in balancing the pros and cons of their decisions.\footnote{209} Early commentators expected that NEPA would do just that.\footnote{210}

\footnote{205. This is not to suggest that all those who understood that NEPA established such a mandate believed that it provided effective enforcement mechanisms. Congressman Richard Ottinger, for example, suggested that a constitutional amendment might be necessary. Richard L. Ottinger, \textit{Legislation and the Environment: Individual Rights and Government Accountability}, 55 \textit{Cornell L. Rev.} 666, 671–72 (1970).


207. The creation of CEQ unquestionably dominated most of the discussion surrounding NEPA, and perhaps one of the failings of NEPA has been the lack of effective coordination under CEQ auspices—a failure that may in the Obama Administration be changing. See E.W. Kenworthy, \textit{Challenge by Democrats}, \textit{N.Y. Times}, Jan. 2, 1970, at 12 (discussing NEPA and the new CEQ).


The convergence of several factors may explain why this substantive mandate did not fully materialize. To begin with, NEPA’s broad mandate at the time coupled with its emphasis on science left both agencies and courts with perhaps insufficient tools to respond quickly enough to complex environmental issues.\textsuperscript{211} As Russell Train, the first Chairman of the CEQ observed in November 1970, NEPA “is so general in its language, so innovative in its procedures and so all-embracing in the range of Government activities included.” Next, NEPA was only part of an ongoing effort by Congress to explore how best to respond to looming threats.\textsuperscript{213} Congress considered and passed other legislation intended to supplement NEPA, but in some respects, it failed. For instance, while Congress passed the Coastal Zone Management Act in 1972,\textsuperscript{214} it failed to pass

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\textit{Environmental Policy Act of 1969, 1 ENVT. L. 8, 14 (1970)} (emphasizing importance of NEPA’s requirement that agencies’ policies, regulations and statutes be interpreted, “to the fullest extent possible,” in accordance with NEPA’s policies). Another observer commented that, whether NEPA is more than a procedural statute, will “presumably . . . become clear through the gradual process of litigation, [which] will determine in large measure how meaningful judicial review in this area will be.” Richard S. Arnold, \textit{The Substantive Right to Environmental Quality Under the National Environmental Policy Act}, 3 ENVT. L. REP. 50,028, 50,042 (1973) (discussing one of the first cases under NEPA). See also Anthony D’Amato & James H. Baxter, \textit{The Impact of Impact Statements Upon Agency Responsibility: A Prescriptive Analysis}, 59 IOWA L. REV. 195, 243 (1973) (“The idea that NEPA requires only the preparation of an impact statement, and that for purposes of judicial review the provisions of section 102 can be clearly severed from those of section 101, seems clearly fallacious.”). Another article even suggested that NEPA might provide grounds for federal claims against polluters, albeit perhaps ignoring the change to the environmental rights language in NEPA. Virginia F. Coleman, \textit{Possible Repercussions of the National Environmental Policy Act of 1969 on the Private Law Governing Pollution Abatement Suits}, 3 NAT. RESOURCES L. 647 (1970).
\end{quote}


\textsuperscript{212} Letter from Russell E. Train, Chairman, Council on Envtl. Quality, to Senator Henry M. Jackson (Nov. 19, 1970), reprinted in 116 CONG. REC. 38,292–93 (1970). Train made these comments amid growing dissatisfaction with how CEQ was enforcing the requirement for agencies to file adequate environmental impact statements, and afford the interested public sufficient access to such documents. \textit{Id. See also} E.W. Kenworthy, \textit{Hart Prods Nixon on Environment Act}, N.Y. TIMES, Nov. 19, 1969, at 16 (indicating that Senator Hart might push for a citizen suit provision to further force CEQ to require compliance with NEPA).

\textsuperscript{213} In 1971, Senator Jackson proposed the National Environmental Policy Institute to serve as a “highly skilled and competentl y staffed organization to provide an interdisciplinary, professional service in environmental policy analysis to the” CEQ and other agencies, as well as to assist the CEQ with developing long-range needs under NEPA. 117 CONG. REC. 6,320 (1971). And in 1970, Congress passed the Environmental Education Act. Pub. L. No. 91-516, 84 Stat. 1312 (1970).

\textsuperscript{214} Coastal Zone Management Act, 16 U.S.C. §§ 1451–1466 (2006). Similar to NEPA, Congress directed that it would be a national policy to encourage states to give “full consideration to ecological, cultural, historic, and aesthetic values as well as the needs for
Senator Jackson’s accompanying national land use legislation.\textsuperscript{215} CEQ Chairman Russell Train testified, in April 1970, that “the development of effective land use policies would be part of the long and hard road to environmental quality. We in the Council believe that a national land use policy underlies the concept of conscious protection and enhancement of the environment set out in” NEPA.\textsuperscript{216}

Also, while Congress’s primary debate on NEPA focused on how CEQ would coordinate environmental policy, a consensus existed that “[p]resently the Federal efforts to monitor and control the environment are scattered over many agencies in fragmented fashion.”\textsuperscript{217} Although the creation of the Environmental Protection Agency in 1970 might have minimized, to some degree, the lack of coordination by consolidating certain programs into one agency,\textsuperscript{218} it also arguably affected how CEQ would operate. For example, with William D. Ruckelshaus’s appointment as the first Administrator of EPA, Russell Train commented that CEQ’s role would be “primarily... advis[ing] the President on the development of new... 

\hspace{1cm} \textit{compatible economic development” to coastal zone activities. Id. § 1452(2).}


\textsuperscript{217} \textit{MITRE Corporation, Management Plan: Study of a System for Monitoring the Nation’s Environment} 3 (July 31, 1970) (working paper for Council on Environmental Quality) (on file with the DUKE ENVTL. L. & POL’Y F.).

\textsuperscript{218} Programs administered by other agencies were transferred to EPA pursuant to President Nixon’s Reorganization Plan No. 3, Reorganization Plan No. 3 of 1970, 3 C.F.R. 199 (1970) reprinted in 5 U.S.C. app. at 200 (2009), and in 84 Stat. 2086 (1970). In recommending the establishment of EPA, the Ash Council memorandum suggested that “[t]he special contribution that organization can make to the administration of large-scale enterprise is to mobilize people, ideas, and things in ways best calculated to achieve clearly articulated goals.” Memorandum from President’s Advisory Council on Exec. Org. to President Richard Nixon, Re: Federal Organization for Environmental Protection (Apr. 29, 1970), \textit{available at} http://www.epa.gov/history/org/origins/ash.htm.
policies.” 219 In fact, one of the driving forces behind NEPA was better governmental coordination and the creation of an independent council capable of performing that function; however, only days before President Nixon signed NEPA, Senator Muskie announced a proposal for a new watchdog agency that would protect the "interrelationship between the natural environment and [the] man-made environment." 220 Senator Muskie's frustration with how CEQ was performing its oversight functions apparently led to his effort, in 1970, to secure EPA's role in the NEPA process through section 309 of the Clean Air Act, which arguably further dissipated CEQ's oversight function. 221

Political reality, too, would prove formidable and ultimately leave early courts reviewing NEPA challenges with insufficient guidance. CEQ, at the outset, did not receive sufficient funds to accomplish what may have been a daunting task. 222 The lack of consistency among the agencies and a perceived recalcitrance by certain elements within the Administration would mar early NEPA implementation. 223 In March 1971, Van Ness advised Senator Jackson to criticize the Administration—for its politicization of environmental issues, warning that he would introduce legislation to establish an environmental think tank "which will not be subject to the clutches and the whims of White House aides." 224

223. In December 1970, the Conservation Foundation opined that NEPA implementation "by various executive agencies and the Council on Environmental Quality has been fraught with bureaucratic extemporizing and timidity." Conservation Foundation Letter, Dec. 12, 1970 (on file with the DUKE ENVTL. L. & POL’Y F.). See also Editorial, For the Environment—Hopefully, L.A. TIMES, Nov. 12, 1970, at 6 (“Although a number of antipollution statutes are on the books, their implementation has been hampered by the wide dispersal of enforcement authority throughout the federal bureaucracy and by the White House’s hot-and-cold approach to environmental problems.”).
Finally, Congress’s effort at environmental management and acceptance of ecology into the public arena left little guidance for how courts could review agencies’ responses to NEPA’s new mandate. While the concept of a specialized environmental court capable of undertaking such a task surfaced, it never materialized. But NEPA, as envisioned by Congress, does not demand such expertise. Judge Wright, in Calvert Cliffs Coordinating Committee, Inc. v. United States Atomic Energy Commission, explained the operation of the mandate and the role of reviewing courts. He observed that NEPA contains a distinct substantive duty under section 101(b) for agencies to use all practicable means to protect environmental values, albeit leaving sufficient discretion for an agency in "particular problematic instances" to make difficult choices. He added that agencies must balance the array of environmental and other values and afford sufficient weight to environmental values when doing so:

225. Professor Hanna Cortner of the University of Arizona would later observe that:

Judicial restraint in the area of substantive implementation combined with an absence of pressures form other political actors, have given administrators a great deal of discretion to apply to this aspect of implementation. The agencies have exercised this discretion to avoid substantive reform in agency decision-making and decision outcomes. Consequently, after four and one-half years, NEPA, as a vehicle for creating and maintaining environmental integrity and reform of environmental decision-making has had only a modicum of success.


228. Calvert Cliffs, 449 F.2d at 1112.
Section 102 of NEPA mandates a particular sort of careful and informed decisionmaking process and creates judicially enforceable duties. The reviewing courts probably cannot reverse a substantive decision on its merits, under Section 101, unless it can be shown that the actual balance of costs and benefits that was struck was arbitrary or clearly gave insufficient weight to environmental values.229

This follows Senator Jackson's remarks during the October "compromise," when he expressed concern about experimental nuclear blasting in Alaska and suggested that NEPA would afford the Atomic Energy Commission "the authority, responsibility, and a directive" to "weigh" the environmental impact of these nuclear tests against the agency's other "mission-oriented" goals.230

IV. CONCLUSION

That the Court has yet to appreciate NEPA's fading mandate should not deter efforts to explore the resiliency of the environment's Magna Carta. Courts undoubtedly examine Congress's purpose when determining the legitimacy of an agency's interpretation,231 and the Supreme Court's crabbed interpretation of NEPA232 should be susceptible to modification under National Cable &

229. Id. at 1115. Judge Wright added that the agency must engage in a “rigorous balancing” and “rigorous consideration of environmental factors.” See id. at 1128.

230. 115 CONG. REC. 29,056 (1969). Dan Dreyfus would later explain that NEPA originally contemplated a “‘balancing’ of environmental costs and benefits against the cultural, economic, and social costs and benefits of actions and inactions.” Daniel A. Dreyfus, Environmental Policy and the Energy Crisis, Mich. St. Interdepartmental Seminar 7 (Apr. 17, 1974) (on file with the DUKE ENVTL. L. & POL'Y F.). In CEQ's April 1970 interim guidance document, the Council noted that environmental values had to be given not just “careful attention” but also “appropriate weight”—in effect requiring a balancing of environmental and other values. CEQ, Interim Guidelines, 35 Fed. Reg. 7390 (Apr. 30, 1970), amended 36 Fed. Reg. 7724 (Apr. 23, 1971). These guidelines noted that the purpose of the § 102 process is to ensure that “to the fullest extent possible, [agencies] direct their policies, plans and programs so as to meet national environmental goals.” CEQ, Statements on Proposed Federal Actions Affecting the Environment, 36 Fed. Reg. 7724 (Apr. 23, 1971). They further provided that the process was designed “in order that adverse effects are avoided, and environmental quality is restored or enhanced, to the fullest extent practicable.” Id.


232. See Kalen, supra note 140.
Telecommunications Association v. Brand X Internet Services\(^{233}\) by any subsequent CEQ guidance entitled to deference.\(^{234}\)

A critical review of NEPA’s legislative history demonstrates several salient points that will allow us to follow such an approach. To begin with, the policy statement was far from an afterthought—it was, after all, an act to establish a national policy. The policy statement accomplished what many ecologists sought: recognition of ecology and the need for a coordinated and integrative approach to federal decision-making. In the words of Daniel Dreyfus, it "set a new paradigm" and "a precedent for future policies."\(^{235}\) Next, the participants paid little attention to section 102(2)(C) and the preparation of a "detailed statement." This was but a mechanism for agencies to ensure that they could arrive at decisions consistent with the new mandate and the type of balancing established by Congress. NEPA, in effect, served as the opening salvo in a several decades-old effort to create an entirely new paradigm in government administration for the environment.\(^{236}\) It admittedly would be a paradigm that would struggle in its nascent years. But now, with the Act slightly over forty-one years old, what Congress sought to accomplish at the birth of the modern environmental movement remains relevant. Congress, after all, crafted a statute whose resiliency affords it ample flexibility to assist in addressing many of our modern problems.

\(^{233}\) 545 U.S. 967 (2005). In Brand X, the Court indicated that, under Chevron, prior judicial decisions upholding ambiguous statutory language could be overruled by subsequent agency interpretations.


\(^{235}\) Dreyfus, supra note 77, at 15. “NEPA,” Dreyfus explained, “stated that there was a whole new Federal government role—the role of environmental management. It was made everybody’s business. Every Federal action, whatever its primary purpose, was to be considered an opportunity for environmental benefit or a threat of environmental damage.” Dreyfus, supra note 230, at 3.

\(^{236}\) This paradigm, unfortunately, would begin to fade in only a few years, as Marion Clawson, with Resources for the Future would write in 1975:

The partial and piecemeal approach to environmental problems has been particularly strange because its proponents ignored the maxim of ecology which presumably all would accept: that everything in an ecosystem is related to everything else in that system. Had interrelationships among inputs, processes, and outputs been carefully studied, and had more distant, as well as a primary, consequences been considered, the marching up and down of the past few years could have been much reduced, if not avoided entirely. The environmental protagonist simply forgot what the environmental scientist had taught.