THE IMPACT OF IMPACT STATEMENTS UPON AGENCY RESPONSIBILITY: A PRESCRIPTIVE ANALYSIS

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I. INTRODUCTION

Under current federal legislation, every federal agency recommending or proposing an action which could significantly affect the quality of the human environment must prepare a detailed “environmental impact” statement. Much of the controversy generated to date by this requirement of the National Environmental Policy Act of 1969 (NEPA) (reprinted in full in an Appendix to this Article) has concerned the threshold issue—whether an agency must prepare an impact statement in a given situation. The purpose of this Article is to ex-

1. 42 U.S.C. § 4332(2)(c) (1970) states:
The Congress authorizes and directs that, to the fullest extent possible: (2) all agencies of the Federal Government shall—

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


3. The threshold issue is multifaceted, and could be in and of itself the subject for a lengthy article. While this Article will not deal with it extensively, it will probably be helpful to the reader to have a brief outline of the primary aspects of this issue. There are four major subissues involved: 1) is the proposed action “federal,” 2) is it a “major” federal
plore an agency's duties under NEPA once the decision to prepare an impact statement has been made.

action, 3) is it an action "significantly affecting" the quality of the human environment, 4) will the requirements of the act be modified in the case of actions which were on-going when NEPA became effective? Each of the first three issues operates independently. For a discussion of the second and third subissues, see Hanly v. Mitchell, 460 F.2d 640, 644 (2d Cir. 1972).

The problems with the first subissue arise in situations where the federal government is assisting or approving state or private action. In La Raza Unida v. Volpe, 337 F. Supp. 221 (N.D. Cal. 1971), aff'd, 409 U.S. 890 (1972), the court held that a highway project having the potential of receiving federal assistance becomes "Federal" when it receives location approval because "[t]he state should not have the considerable benefits that accompany an option to obtain federal funds without also assuming the attendant obligations." Id. at 227. See also Gage v. Commonwealth Edison Co., 356 F. Supp. 80, 83 (N.D. Ill. 1972) (federal government not yet involved); Brandfort Township v. Illinois State Toll Highway Auth., 463 F.2d 537, 540 (7th Cir. 1972) (federal government not involved). Problems have arisen concerning the durability of the "Federal" nature of the action in these joint federal-state actions. In Named Indiv. Members of the San Antonio Conserv. Soc'y v. Texas Hwy. Dep't, 446 F.2d 1013 (5th Cir. 1971), the court held that, once an action becomes "Federal," a state cannot later avoid the NEPA requirements by deciding it does not want federal assistance. Id. at 1027. See also Sierra Club v. Volpe, 351 F. Supp. 1002 (N.D. Cal. 1972).

Finally, questions have arisen in this federal-state context concerning whether a whole action is "Federal" if the action has been fragmented into a number of "projects" for administrative purposes and the federal government is not involved in all of the fragments. Courts have held that if any part of an action is "Federal," then the whole action must be "Federal." See Named Indiv. Members of the San Antonio Conserv. Soc'y v. Texas Hwy. Dep't, 446 F.2d 1013, 1023 (5th Cir. 1971); Thompson v. Fugate, 347 F. Supp. 120, 124 (E.D. Va. 1972); Committee to Stop Route 7 v. Volpe, 346 F. Supp. 731, 740 (D. Conn. 1972); Indian Lookout Alliance v. Volpe, 345 F. Supp. 1167, 1170 (S.D. Iowa 1972).

Whether a federal action is "major" is determined on the basis of the amount of planning, time, resources, or expenditure that goes into the action. Natural Resources Defense Council v. Grant, 341 F. Supp. 356, 366-67 (E.D.N.C. 1972). The outside boundary of what is a "major, Federal action" may have been established in Davis v. Morton, 335 F. Supp. 1258 (D.N.M. 1971), rev'd, 469 F.2d 593 (10th Cir. 1972). In that case, the Secretary of Interior approved a lease of 1,300 acres (and potentially 4,100 additional acres) of restricted Indian lands for residential and commercial development. 335 F. Supp. at 1259. The Secretary admitted that the transaction would involve a substantial effect on the environment but maintained that it was not a major federal action because the government had no interest in either the lease or the development project, and was merely acting as a fiduciary for the Indians. Id. at 1260. The district court held the action was not "major," id. at 1261, and the 10th Circuit Court of Appeals reversed, stating that the only involvement necessary to constitute major federal action is approving or licensing a project. 469 F.2d at 597. Perhaps the case could be read to support the proposition that, if an action will have a substantial effect on the environment, a court will not allow the requirements of NEPA to be subverted by holding that an action is not major. Indeed, Paragraph 5(a) of the Council on Environmental Quality's Statements on Proposed Federal Actions Affecting the Environment: Guidelines, 36 Fed. Reg. 7724 (1971) [hereinafter cited as Guidelines] indicates that just about any activity of the government will be considered "action" in terms of NEPA.

Whether an action will significantly affect the environment is obviously a matter of degree. It is clear that an agency must look not only to the immediate effects of the action, but also to the cumulative, indirect, and long-range effects as well. Guidelines ¶ 5(b). The Second Circuit Court of Appeals has held that whether an impact is significant should be determined in light of two factors: (1) the amount of new impact, over and above that
At least one highly placed government advocate has taken the position that an agency's duties amount to nothing more than the preparation of an impact caused by existing uses, which will be caused by the proposed action, and (2) the absolute level of environmental damage which will result from the existing uses plus the proposed action. Hanly v. Kleindienst, 471 F.2d 823, 830-31 (2d Cir. 1972). The court also held that an agency must establish a reviewable record in reaching its threshold decision on the significance of the impact. Id. at 836. While the requirement of such a "mini-impact statement" may be helpful in forcing agencies to take a hard look at the environmental aspects of proposed actions at the earliest possible stage, there are concomitant dangers, some of which are pointed out in Judge Friendly's cogent dissent, advocating a very low threshold point for "significance" rather than a "mini-statement." Id. There are also some federal actions which do not involve a significant impact on the environment. See Citizens for Reid State Park v. Laird, 336 F. Supp. 783 (S.D. Me. 1972) (mock amphibious landing by the Navy has no significant impact).

The fourth issue, the degree to which the NEPA requirements will be held applicable to actions which were to some degree on-going when NEPA became effective, has been a major source of litigation. Some of the early cases dealt with this issue in terms of retroactivity, and used this concept as the basis for a restricted interpretation. See Brooks v. Volpe, 329 F. Supp. 118, 120 & n.6 (W.D. Wash. 1971), rev'd, 460 F.2d 1193 (9th Cir. 1972); Investment Syndicates, Inc. v. Richmond, 318 F. Supp. 1038, 1039 (D. Ore. 1970); Pennsylvania Environmental Council, Inc. v. Bartlett, 315 F. Supp. 238, 253 (M.D. Pa. 1970), aff'd, 454 F.2d 613 (3rd Cir. 1971). The tide began to change from this restrictive approach towards one more sympathetic to the purposes of NEPA with Environmental Defense Fund, Inc. v. Corps of Eng'rs, 325 F. Supp. 749 (E.D. Ark. 1971) (Gillham Dam No. 1, Memorandum Opinion No. 5), modified, 470 F.2d 289 (8th Cir. 1972). The facts are set out in the court's Fourth Memorandum Opinion, Environmental Defense Fund, Inc. v. Corps of Eng'rs, 325 F. Supp. 728 (E.D. Ark. 1971). The court dealt in this case with a project authorized by Congress in 1958, with construction beginning in 1963. Id. at 744. At the time of the litigation, two-thirds of the project had been completed in terms of estimated total cost, but no construction work had been done on Gillham Dam. Id. The court noted that some courts had dealt with this kind of problem in terms of retroactivity, but stated that plaintiffs were not asking the court to undo or set aside any past actions. Instead, they were seeking the application of existing law to anticipated future actions. Id. at 743. The court made a very important distinction concerning work on a project completed prior to the effective date of NEPA:

The Court is not suggesting that the status of the work should not be considered in determining whether to proceed with the project. It is suggesting that the degree of the completion of the work should not inhibit the objective and thorough evaluation of the environmental impact of the project as required by NEPA. Id. at 746.

Support for the court's position is found in the Guidelines of the Council on Environmental Quality (CEQ). They state:

11. Application of section 102(2)(C) procedure to existing projects and programs. To the maximum extent practicable the section 102(2)(C) procedure should be applied to further major Federal actions having a significant effect on the environment even though they arise from projects or programs initiated prior to enactment of the Act on January 1, 1970. Where it is not practicable to reassess the basic course of action, it is still important that further incremental major actions be shaped so as to minimize adverse environmental consequences. It is also important in further action that account be taken of environmental consequences not fully evaluated at the outset of the project or program. Guidelines ¶ 11.

Most of the circuits have since adopted the functional approach of the CEQ Guidelines. See Environmental Defense Fund v. TVA, 468 F.2d 1164, 1177 (6th Cir. 1972); Scherr v. Volpe, 466 F.2d 1027, 1034-38 (7th Cir. 1972); Brooks v. Volpe, 460 F.2d 1193, 1194 (9th Cir. 1972); Arlington Coalition on Transp. v. Volpe, 458 F.2d 1323, 1330-32 (4th Cir. 1972); Lathan v. Volpe, 455 F.2d 1111, 1120-21 (9th Cir. 1972); Calvert Cliffs' Co-
statement, however inadequate that statement might be.\textsuperscript{4} At the opposite extreme, some environmentalists have argued that NEPA is a barrier to all federal activity that could adversely affect the quality of the environment.\textsuperscript{5} It is the position of this Article that Congress intended NEPA to be neither a mere formality nor an insurmountable roadblock, but rather intended it to create a duty on the part of federal agencies to prevent or minimize unjustifiable environmental degradation resulting from their activities. The main task of this Article will be to analyze and articulate what a full, fair reading of NEPA requires of an agency, while attempting to present a workable system of legal prescriptions for agency compliance with both the letter and spirit of NEPA.\textsuperscript{6}

This task of analysis must begin with the first two sections of the Act, which give a broad indication of the agencies' duties. Section 101\textsuperscript{7} declares a national environmental policy, and section 102\textsuperscript{8} sets out action-forcing provisions designed to ensure the effectuation of that policy. Taken together, these sections may be said to impose two basic duties on an agency; (1) the duty of full disclosure, and (2) the duty of balanced decision-making.

The purpose of the duty of full disclosure is to ensure that the information re-

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\textsuperscript{6} The prescriptions of this Article are based on the belief that NEPA rejected the process of agency decision-making described by Charles E. Lindblom as the science of "muddling through" in Lindblom, The Science of "Muddling Through", 19 PUB. ADMIN. REV. 79 (1959). Instead, NEPA adopted the method of agency decision-making which requires a comprehensive plan of environmental management, rather than crisis-oriented "muddling through." Support for this proposition is found in the following statement by Senator Henry M. Jackson, NEPA's sponsor, from the Act's legislative history:

"Over the years, in small but steady and growing increments, we in America have been making very important decisions concerning the management of our environment. Unfortunately, these haven't always been very wise decisions. Throughout much of our history, the goal of managing the environment for the benefit of all citizens has often been overshadowed and obscured by the pursuit of narrower and more immediate economic goals.

It is only in the past few years that the dangers of this form of muddling through events and establishing policy by inaction and default have been very widely perceived. Today, with the benefit of hindsight, it is easy to see that in America we have too often reacted only to crisis situations. We always seem to be calculating the short-term consequences of environmental mismanagement, but seldom the long-term consequences or the alternatives open to future action." 115 Cong. Rec. 29,068-69 (1969).


quired by the Act is made available to the proper persons, in the proper form, and at the proper time, so that the kind of systematic, balanced decision-making contemplated by NEPA can take place. At least six different planning processes can be identified which must be satisfactorily completed before an agency can be considered to have fulfilled its duty. An agency, in order to prepare an adequate statement, must:

(a) determine, quantify, and describe the goals to be achieved by the proposed action and the benefits which will be realized as a result of their achievement;

(b) determine and describe the feasible alternative means of achieving the desired goals and benefits (primary alternatives);

(c) determine, quantify, and describe the environmental impacts and the irreversible commitments of resources flowing from each alternative;

(d) determine and describe methods of mitigating the impacts and commitments of resources involved in each primary alternative (secondary alternatives), and designate for each primary alternative which impacts and commitments cannot be avoided if that alternative is selected;

(e) appropriately value the environmental factors in light of section 101 and section 102(2)(C)(iv), and describe how the values were derived; and

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9. This Article focuses on the analytical processes which an agency should undertake to meet the NEPA requirements, not how an agency should organize its impact statement. Thus, the planning steps do not correspond exactly with the content requirements at § 102 (2)(e) of the Act. For an informative article on the mechanics of impact statement preparation see Kross, Preparation of Environmental Impact Statement, 44 U. Colo. L. Rev. 81 (1972).

10. (a) The Congress . . . declares that it is the continuing policy of the Federal Government . . . to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.

(b) In order to carry out the policy set forth in this Act, it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may—

(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(2) assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;

(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

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

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

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

(c) The Congress recognizes that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment. 42 U.S.C. § 4331 (1970).

11. The Congress authorizes and directs that, to the fullest extent possible:

. . . (2) all agencies of the Federal Government shall—

(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human en-
(f) solicit consultation and comments on its draft impact statement from appropriate federal, state, and local agencies, as well as the public, and then set out and respond to these comments in its final, revised impact statement.

The duty of balanced decision-making makes incumbent upon an agency the proper consideration of environmental factors in any of its decision-making processes. In order to comply fully with this duty, it would seem that an agency must systematically balance all of the environmental, economic, and other factors presented in its impact statement by means of some sort of cost-benefit analysis in an attempt to determine the optionally beneficial result. In so doing it must make two correct decisions on the basis of the information contained in its impact statement. First, it must decide which alternative course of action will maximize the cost-benefit ratio of the proposed project. Second, it must determine if the benefits of the action clearly outweigh the costs, including both environmental and economic costs.

It is suggested that the success of an agency in fulfilling its duties of full disclosure and balanced decision-making should guide courts in reviewing agency actions. Generally, if a federal court cannot determine from the impact statement alone that an agency has properly discharged its duty of full disclosure, or if the court cannot determine from the impact statement that the agency has made a proper, balanced decision concerning the proposed action, the court should enjoin the action until this branch of statutory duty is remedied.

What follows in this Article is a discussion of the derivation of these duties and the beginning of an explanation of their scope. It is only a beginning because there are still many questions about the scope of these duties which will have to be answered by judicial, legislative, or administrative decision.

II. THE DUTY OF FULL DISCLOSURE

The duty of full disclosure was articulated by Judge Eisele in *Environmental Defense Fund, Inc. v. Corps of Engineers.* He said:

> At the very least, NEPA is an environmental full disclosure law . . .
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> The "detailed statement" required by § 102(2)(C) should, at a minimum, con-
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12. As pointed out below, the means of applying a cost-benefit analysis to NEPA situations has yet to be developed. *See* notes 200-13 *infra* and accompanying text. Despite this difficulty in reaching meaningful quantifications of environmental factors that will make them comparable to other factors such as economic ones, NEPA would seem to require that such an analysis be used. Therefore, throughout this Article the terms "cost-benefit analysis" and "cost-benefit ratio" shall be used to indicate a process whereby economic, environmental, and other relevant factors are quantified and compared to determine whether the proposed action will be beneficial or detrimental.

tain such information as will alert the President, the Council on Environmental Quality, the public, and, indeed, the Congress, to all known possible environmental consequences of proposed agency action. . . . The record should be complete.14

Essentially, the duty of full disclosure requires an agency to compile and present in its impact statement all of the information necessary for its decision-makers to undertake and properly discharge their duty of balanced decision-making, and all the information outside critics need to independently evaluate the proposed action and the agency's decision. The duty of full disclosure seems to involve both research—the process of accumulating and analyzing the necessary data, and presentation—the process of presenting that data and analysis in the impact statement. Inadequate research would be illustrated by an agency's failure to discover the existence of a feasible primary alternative, or its failure to obtain all of the information necessary to determine an alternative's suitability. If, on the other hand, the agency has in its possession complete information concerning the alternative, but fails to discuss the alternative in the statement, or discusses it inadequately, then the agency has failed to make an adequate presentation. In either case the agency has failed to discharge its duty of full disclosure because it has not conveyed sufficient information to the agency decision-maker and to the outside critic, thus thwarting the purposes of the statement.

The duty of full disclosure stems from section 102 of the Act, which commands each Federal agency to undertake "to the fullest extent possible" a number of "action-forcing" procedures designed to minimize unforeseen and unjustified environmental degradation resulting from federal activities.15 The Act's legislative history indicates that this language was intended to make compliance mandatory.16 The judiciary has so interpreted it, declaring that these procedures

14. Id. at 759.
16. Senate Jackson, the bill's sponsor, stressed the "action-forcing" nature of the Act's provisions when he stated:

To ensure that the policies and goals defined in this act are infused into the ongoing programs and actions of the Federal Government, the act also establishes some important "action-forcing" procedures. 115 Cong. Rec. 40,416 (1969).

On December 20, 1969, Senator Jackson presented the Senate-House Conference Report to the Senate and made this introductory comment:

To ensure that the policies and goals defined in this act are infused into the ongoing programs and actions of the Federal Government, the act also establishes some important "action-forcing" procedures. Section 102 authorizes and directs all Federal agencies, to the fullest extent possible, to administer their existing laws, regulations, and policies in conformance with the policies set forth in this act. It also directs all agencies to assure consideration of the environmental impact of their actions in decision-making. 115 Cong. Rec. 40,416 (1969).

The Conference Report's section on "major changes" in the bill contains this statement about the effect of applying the "to the fullest extent possible" language to the provisions of section 102:

[It is the intent of the conferees that the provision "to the fullest extent possible" shall not be used by any Federal agency as a means to avoiding compliance with the directives set out in Section 102. Rather, the language in section 102 is intended to assure that all agencies of the Federal Government shall comply with the directives set out in said section "to the fullest extent possible" . . . and that no agency shall seek to construe its existing statutory authorizations in a manner designed to avoid compliance. H.R. REP. No. 91-765, 91st Cong., 1st Sess. 9-10 (1969).]
create duties which will be rigorously enforced by reviewing courts.\footnote{Calvert Cliffs' Coordinating Comm., Inc. v. AEC, 449 F.2d 1109, 1114-15 (D.C. Cir. 1971).} One of these mandatory procedures, which partially subsume all of the others, is the preparation of a "detailed statement,"\footnote{42 U.S.C. § 4332(2)(C) (1970).} the required content of which is stated in the Act as follows:

(i) the environmental impact of the proposed action,
(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
(iii) alternatives to the proposed action,
(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
(v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.\footnote{Id.}

A detailed environmental impact statement discussing these topics to the fullest extent possible "shall accompany the proposal through the existing agency review processes."\footnote{Id.} The judicial interpretation given this statutory requirement is that the environmental factors treated in the statement must be considered at every important stage of decision-making.\footnote{Id.} Moreover, the statement must be made available to other appropriate federal, state, and local agencies and to the public for comment and criticism before any final decision is made concerning the proposed action.\footnote{Calvert Cliffs' Coordinating Committee, Inc. v. AEC, 449 F.2d 1109, 1118-19 (D.C. Cir. 1971).} These requirements of subsection 102(2)(C), augmented by the requirements of the other "action-forcing" provisions of section 102, form the substance of the duty of full disclosure.

Two of the action-forcing provisions apply to all of the planning procedures an agency must complete to discharge its duty of full disclosure, and thus are important to an overview of the duty. The first is section 102(2)(G) which requires an agency to initiate ecological information for use in planning and developing resource-oriented projects.\footnote{See 42 U.S.C. § 4332(2)(C) (1970); Guidelines, supra note 3, at ¶¶ 2, 7-10.} In preparing an impact statement, an agency can utilize available information so long as it is applicable and reliable.\footnote{42 U.S.C. § 4332(2)(C) (1970).} An agency does not, however, necessarily fulfill the research aspect of its duty of full disclosure by merely bringing together and presenting all the available, existing information. Subsection 102(2)(G) places an affirmative duty on an agency to develop necessary information if that information is not available.\footnote{See Brooks v. Volpe, 350 F. Supp. 269, 279-80 (W.D. Wash. 1972).} As with other aspects of NEPA duties, this requirement should be governed by a rule of reason ableness.\footnote{E.g., Environmental Defense Fund, Inc. v. Froehlke, 473 F.2d 346, 349-50 (8th Cir. 1972); Brooks v. Volpe, 350 F. Supp. 269, 279-80 (W.D. Wash. 1972); Environmental Defense Fund v. Hardin, 325 F. Supp. 1401, 1403 (D.D.C. 1971).} A needed project should not be unduly delayed be-
cause non-crucial information is unavailable and cannot be made available within a reasonable amount of time. In such a case the agency should make note of the missing information in its statement, and should file a supplemental statement when the information becomes available. The agency should state what effort has been made to obtain the information, why it cannot be obtained within a reasonable amount of time, and what future efforts will be made to obtain it. More importantly, the agency should be required to show that the missing information is not necessary to a full and careful evaluation of the proposed project. If the information is crucial to such an evaluation, the agency should not be allowed to proceed with the project until it has obtained and assimilated the information. As one court put it, NEPA does not allow agencies to “meet their responsibilities by locking the barn door after the horses are stolen.”

A relative standard for “crucial” information might be whether the missing information could conceivably shift the benefit-cost ratio of the action in question to a value of one or below (in which case the action should not be considered at all), or put into serious question which alternative offers the highest benefit-cost ratio. There might also be certain absolute standards for “crucial” information. For instance, if the lack of information might result in the loss of human life, the destruction of some unique geological feature, or the loss of a species of plant or animal life, and this loss or destruction has not been taken into account as a cost of the action, the agency should not be allowed to proceed until it has obtained and assimilated the missing information.

The second action-forcing provision which is important to an overview of the duty of full disclosure is § 102(2)(A), which requires an agency to “utilize a systematic, interdisciplinary approach [to] insure the integrated use of the natural and social sciences and the environmental design arts in planning and decision-making which may have an impact on man’s environment.” An agency should make every effort to bring together a wide variety of relevant professional viewpoints and backgrounds in the preparation of an impact statement. Of course, which fields should be represented will vary considerably with the nature of the action. A biologist would be vital if the proposal were to dam a large river, but probably considerably less important if the proposal were to construct a federal building in the downtown area of a large city. An agency should identify the members of its staff who contributed substantially to the statement, and set out in the statement itself their professional qualifications. If the agency is lacking expertise in a field that is important to the planning or evaluation of the project, it should make every attempt to obtain extensive comments from other agencies, private groups, or individuals possessing the requisite expertise, in order to fill that gap. No court has yet made a definitive ruling on what constitutes “preparation” in an interdisciplinary manner, and there is

little authority on what would be minimally acceptable. In an extreme case, where an interdisciplinary approach has obviously not been utilized, the burden of proof of the statement's adequacy should be shifted to the agency once the issue has been raised. The agency has breached a statutory duty, and there should be no presumption of regularity in such a case.

The test of an agency's compliance with the duty of full disclosure should be whether its statement fulfills the three-fold purpose of an impact statement—to provide a basis (1) for the agency's decisions, (2) for independent evaluation, and (3) for judicial review. As to the first point, it is obvious from the purpose of the Act that the statement must serve as a basis for agency decisions. Because the type of decision-making contemplated by the Act is a systematic, fine-tuned analysis which takes into account all relevant factors, balances them one against the other, and arrives at the optimally beneficial result, under no circumstances can the impact statement merely be an attempt to justify a decision already made. For this type of decision-making to take place, the statement must be detailed, comprehensive, accurate, and objective.

The statement should also provide the basis for intelligent, independent evaluation, criticism, and comment by both the decision-maker who is removed from the preparation process and the outside critic. The statement must fully explicate the agency's course of inquiry, its analysis, and its reasoning. Trade offs must be identified and justified; assumptions should be articulated and supported. The conclusions of the staff members who prepared the statement should be presented, but these conclusions must be supported by objective

30. The court in Environmental Defense Fund, Inc. v. Corps of Eng'rs, 348 F. Supp. 916 (N.D. Miss. 1972) (Tennessee-Tombigbee Waterway), held that a six-person team, whose qualifications were set out in the impact statement, represented an adequate range of relevant sciences and possessed the capability to approach their task in an interdisciplinary fashion. Id. at 928-29. The court in Akers v. Resor, 4 Environment Rptr. 1966 (W.D. Tenn. 1972), indicated that an agency's failure to solicit comments from other agencies on specific matters within their area of expertise and jurisdiction would constitute a failure to satisfy the requirement of an interdisciplinary approach. Id. at 1968.


32. Calvert Cliffs' Coordinating Comm., Inc. v. AEC, 449 F.2d 1109, 1113 (D.C. Cir. 1971).


data in the statement. The sources of the data must be given, so it can be double-checked or studied in greater depth. In order that the agency's conclusions may be intelligently evaluated, opposing views and evidence supporting these views must be presented. Obviously, the amount of detail presented in the statement must be gauged by a standard of reasonableness. The statement should be concise in order to be useful, while presenting the required information in great enough detail that the reasonably intelligent reader is able to grasp quantitatively and qualitatively what is being proposed, what the alternatives are, and what benefits and costs will result from each alternative. In short, having read the statement, she should be able to make an intelligent, independent decision as to what course of action should be taken.

Finally, the statement must serve as an evidentiary record upon which a federal court can determine whether the mandatory procedures of NEPA have been carried out satisfactorily. If required data is missing, inaccurate, or unclearly presented, the agency has failed to satisfy several relevant requirements of the Act. The content requirements of section 102(2)(C)(1)-(v) have not been met, nor can there be intelligent outside comment. In addition, when the data is not present in a comprehensible form, it would not seem that one could say that all relevant information had accompanied the proposal through the review process. Aside from the proscriptions of NEPA, an agency decision based on inadequate information, or which inadequately took account of adequate information, would also be an impermissible arbitrary and capricious decision. Thus, the purposes of an impact statement become tests of compliance with the duty of full disclosure, and if any test is not fulfilled by the statement a court should declare it to be insufficient—both because the agency has failed to comply with the mandatory procedures, and because the agency could not discharge its duty of balanced decision-making on the basis of such a faulty statement.

Having established the rationale for requiring compliance with the duty of full disclosure, it is now appropriate to turn to the six planning processes in which each agency must engage in order to develop an adequate impact statement. Each process will be analyzed to determine what steps are necessary to complete it, and possible difficulties will be identified.

38. See Brooks v. Volpe, 350 F. Supp. 269, 277-78 (W.D. Wash. 1972); Lathan v. Volpe, 350 F. Supp. 262, 266 (W.D. Wash. 1972). Enough information should be presented that the average reader has everything he needs to understand the problem or view being presented. The statement should be essentially self-contained and self-sufficient. See Recommendations, supra note 29, at ¶ B(2), (Recommendation No. 6).


42. Id.

A. Goals and Benefits

The first step an agency should take in planning a project is to determine the goals it wants to achieve. Normally, the goals of a proposed project will be defined so as to achieve certain benefits, and thus should be stated in terms of those benefits. For example, the desired benefit might be the alleviation of hardships caused by flooding. If the goal of the proposed project is framed in terms of "flood control," however, only structural alternatives such as dams, levees, or straightened and deepened channels are envisioned. The generic term "flood control" eliminates from consideration, or at least diverts attention away from, other alternatives which might achieve the desired benefit but which have nothing to do with flood control. Examples of such alternatives would be flood plain zoning, government-subsidized insurance, purchase by the government of the fee title to the land in the flood plain, or purchase of a flowage easement over such lands. Generally, then, agencies should eschew generic terms in the formulation of their goals. The goals of a proposed project should be expressed concretely in terms of the desired benefits to be achieved by the project.

That an agency must set out in its impact statement the goals or benefits it wants to achieve by means of the proposed project is implicit in the Act itself, in that it requires an agency to consider and discuss the alternative courses of action open to it.\textsuperscript{44} Alternatives, in this context, can only be defined in terms of the goals to be achieved. If the agency itself does not have its desired benefits clearly defined it will be unable to determine what alternative courses of action are available. In addition if the benefits are not clearly set out in the impact statement, neither a decision-maker nor an outside critic can determine whether all of the feasible alternatives have been, or are being, considered.

The duty of full disclosure requires that the benefits to be achieved by the proposed project be set out in the statement for another reason. The primary purpose of the duty of full disclosure is to ensure that the decision-maker has in front of him the information he needs to undertake the type of systematic, balanced decision-making contemplated by the Act.\textsuperscript{45} The duty of balanced decision-making, to be discussed fully later in the Article,\textsuperscript{46} requires the decision-maker to make two decisions on the basis of information contained in the impact statement:\textsuperscript{47} to decide which of the alternatives is best, and to decide if the benefits to be realized from the project in this form will substantially outweigh its environmental and other costs. If the decision-maker is to be able to make

\textsuperscript{45} See notes 13-34 supra and accompanying text.
\textsuperscript{46} See notes 241-68 infra and accompanying text.
\textsuperscript{47} The Circuit Court of Appeals for the District of Columbia indicated in Natural Resources Defense Council v. Morton, 458 F.2d 827 (D.C. Cir. 1972), that an impact statement must set forth the required information in a form suitable for the enlightenment of all concerned, \textit{id.} at 835-36, and that the "subject of environmental impact is too important to relegate either to implication or to subsequent justification by counsel," \textit{id.} at 836. \textit{See also} Greene County Planning Bd. v. FPC, 455 F.2d 412, 420 (2d Cir. 1972).
the second decision in the manner required by the Act, the quantified benefits must be clearly described in the impact statement. Likewise, outside critics must have this information if they are to independently evaluate the proposed action. Federal courts must have this information if they are to determine whether an agency has adequately completed the mandatory planning processes, and, at a later stage, whether the decisions made by the agency are justified in light of the information in the statement.

The agency may not merely list the benefits to be derived from the project. It must quantify them so that they can be accurately weighed against the costs. For example, in the above-mentioned flooding situation, all of the following would be important factors in quantifying the benefit of alleviating the hardships resulting from floods: the types of people or interests affected (residential property owners, framers, businessmen), the dollar amounts of the damage by category, frequency of the floods, and the number of people affected.

When a number of separate and distinct benefits are involved in the formulation of the goals of a proposed action, the agency should attempt to place relative priorities on each of them. Possibly, a more acceptable cost-benefit ratio will be achievable if one of another of the desired benefits is ultimately dropped, and the decision-maker should be given some guidance on this alternative.

Since the benefits are decisive in determining whether there is sufficient justification to undertake a proposed project, there is a temptation for an agency to fabricate or overvalue benefits in an attempt to sway the balance. A good example of this phenomenon occurred in Environmental Defense Fund, Inc. v. Corps of Engineers. The Corps claimed an incidental benefit from its proposed dam of abating water pollution. Since the river to be dammed appeared to be substantially free of pollution, the judge did not understand how the abatement of water pollution would be a resulting benefit. The Corps explained that the dam would eliminate flooding, and with no flooding to worry about, industry would move into the flood plain area. Such industrialization would produce water pollution, and, when the downstream water became polluted, the Corps claimed it would release water over the dam, diluting the pollution. The judge rightly condemned this "bootstrap" argument. The impact statement cannot be made a vehicle for self-justification or propaganda by the agencies. The agencies themselves should guard against this kind of temptation, and out-

48. Several courts have indicated that a cost-benefit analysis is required by NEPA. See, e.g., Calvert Cliffs' Coordinating Comm., Inc. v. AEC, 449 F.2d 1109, 1113 (D.C. Cir. 1971); Lathan v. Volpe, 350 F. Supp. 262, 266 (W.D. Wash. 1972); Environmental Defense Fund, Inc. v. Corps of Eng'rs, 325 F. Supp. 749, 759 (E.D. Ark. 1971) (Gillham Dam No. 1, Memorandum Opinion No. 5), modified, 470 F.2d 289 (8th Cir. 1972).
49. 325 F. Supp. 749 (E.D. Ark. 1971) (Gillham Dam No. 1, Memorandum Opinion No. 5), modified, 470 F.2d 289 (8th Cir. 1972).
50. Id. at 761.
51. Id.
52. Id.
53. See authority cited note 33 supra.
side critics and the courts should stand ready to attack any such attempts which come to light.

B. Primary Alternatives

In considering a proposed action that will significantly affect the quality of the human environment, one of a federal agency’s most important functions is to determine and evaluate the various alternative means of achieving the benefits which motivate the proposal. The discussion of alternatives is the “linchpin” of an impact statement. For the sake of analytical clarity, these alternative courses of action shall be called “primary” alternatives to distinguish them from mere modifications of a primary course of action which may reduce its environmental impact. Such “secondary alternatives” will be discussed later in this Article.

NEPA commands an agency to undertake the consideration of alternative courses of action in two places. First, section 102(2)(C)(iii) requires the preparation of a detailed statement which discusses, to the fullest extent possible, “alternatives to the proposed action.” This requirement is supported by section 102(2)(D), which commands that, to the fullest extent possible, an agency “study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.”

1. The Relationship of Section 102(2)(c)(iii) to Section 102(2)(D)

It is clear that § 102(2)(C)(iii) and § 102(2)(D) are not mutually exclusive, but it is not clear that they are exactly coextensive. Natural Resource Defense Council, Inc. v. Morton made this issue a potentially important one. In that case, the District of Columbia Court of Appeals held that an agency must discuss in its impact statement alternatives which it has no jurisdiction to effect. Such discussion, implied the court, would usefully inform Congress and the President, who would presumably have the power to implement the alternatives. The court based this interpretation partly on analysis of section 102 (2)(D) appearing in the Act’s legislative history, which explicitly designates Congress as a reviewer and decision-maker to which the discussion of alternatives is addressed. Since Congress is not so designated as a reviewer and decision-

55. See notes 199-200 infra and accompanying text.
60. 458 F.2d 827 (D.C. Cir. 1972).
61. See id. at 836.
62. Id. at 833, 836-38.
63. Id. at 833. See S. Rep. No. 91-296, 91st Cong., 1st Sess. 21 (1969). For a dif-
maker in connection with section 102(2)(C), the court apparently read subsection (2)(D) into subsection (2)(C)(iii), a construction which would seem reasonable.

If Congress intended for the two subsections to be co-extensive, one might wonder why it did not eliminate section 102(2)(D) entirely, and fold its contents into section 102(2)(C)(iii). Although the other capital letter subsections of section 102(2) augment the section 102(2)(C) requirements, none of them except subsection (2)(D) can arguably be fully encompassed by one of the content requirements of subsection (2)(C). At least one court has noted the seeming inconsistency of this duplication. 64

The duplication of these two subsections probably resulted primarily from carelessness or compromise in the segmented drafting process. When the Senate initially passed NEPA on July 10, 1969, section 102(2)(D) was essentially in its final form. 65 Subsection (2)(C), however, was not. 66 At that stage, section 102(2)(C) required an agency to make a “finding” rather than to prepare a “detailed statement.” 67 Although the agency had to find that “any adverse environmental effects which cannot be avoided by following reasonable alternatives are justified by other stated considerations,” 68 the alternatives themselves were dealt with in section 102(2)(D), which required an agency to describe them. 69 Members of the Senate later decided that a detailed statement rather than mere findings should be required, and that one of the topics to be discussed in the statement should be alternatives. 70 The “description” required by subsection (D) may have sparked the conception of this broad change. 71 The Senate-House Conference on the bill accepted the revision, 72 and also applied the “to the fullest extent possible” language to the action-forcing provisions of section 102, including section 102(2)(C). 73

There is no indication in the legislative history why section 102(2)(D) was left standing. Congress probably intended to transfer its substance to section 102(2)(C)(iii), and thus section 102(2)(D) merely says explicitly what is implicit in subsection (2)(C)(iii). Neither the courts nor the Council on Environmental Quality (CEQ) have treated these subsections as other than interrelated and co-extensive. 74 The language in section 102(2)(D) which seems

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65. Id. § 102(C).
66. Id. § 102(C)(ii).
67. Id. § 102(D).
68. S.1075, 91st Cong., 1st Sess. § 102(C) (as amended, October 8, 1969).
69. Id. § 102(D).
71. Id.
to set it apart from section 102(2)(C) is as much a meaningless holdover as the clearly duplicative language. There is no need for the word "describe" in section 102(2)(D) now—that function has been superceded by section 102 (2)(C)(iii). An "unresolved conflict" probably exists in every case where an impact statement is required. The NEPA process is designed to resolve such conflict over the use of resources. If "unresolved conflict" originally applied to some sort of high-level conflict, as between agencies,\textsuperscript{76} that language today is mere surplusage; subsection 102(2)(C)(iii) has subsumed section 102(2)(D).

2. The Appropriateness of Alternatives for Discussion

Subsection 102(2)(D), as we have seen, requires an agency to "study, develop, and describe [presumably in its impact statement, pursuant to the interrelated and co-extensive requirement of subsection 102(2)(C)(iii)] appropriate alternatives to recommended courses of action."\textsuperscript{76} One alternative is always available—the alternative of no action at all, and this possibility must be discussed in every impact statement.\textsuperscript{77} The question of which alternatives, other than the alternative of inaction, are "appropriate" for discussion in an impact statement is complex and difficult. In \textit{Environmental Defense Fund, Inc. v. Corps of Engineers},\textsuperscript{78} Judge Eisele said that \textit{all} known alternatives must be discussed.\textsuperscript{79} Although one can easily agree with the sentiment expressed, such a statement begs the question, for the definitional problem remains. One could argue that an alternative means of achieving flood control would be to pay local residents to go to the riverside with buckets and haul away the excess water. However, it is certain that no court would require the Corps to give such a fanciful proposal a second glance. What one has, then, is an implied requirement of reasonableness.\textsuperscript{80} An agency should reasonably be required to investigate any potentially suitable alternative, and any potential alternative which the agency has investigated should be discussed in its impact statement.

Obviously, some potentially suitable alternatives investigated by an agency during the early planning stages of a proposal may turn out to be unfeasible, or only marginally feasible. Even these alternatives should be presented in the impact statement, although the discussion of them obviously need not be as exhaustive as that of actually feasible alternatives. There are a number of reasons supporting this position. First, the statement is a judicially reviewable record of the

\textsuperscript{75} Perhaps the fact that Congress was specifically designated as reviewer and decision-maker in the legislative history supports this proposition. See authorities cited note 63 supra.


\textsuperscript{77} See Calvert Cliffs' Coordinating Comm., Inc. v. AEC, 449 F.2d 1109, 1114 (D.C. Cir. 1971); Environmental Defense Fund, Inc. v. Corps of Eng'rs, 325 F. Supp. 749, 761 (E.D. Ark. 1971) (Gillham Dam No. 1, Memorandum Opinion No. 5), modified, 470 F.2d 289 (8th Cir. 1972).

\textsuperscript{78} 325 F. Supp. 749 (E.D. Ark. 1971) (Gillham Dam No. 1, Memorandum Opinion No. 5), modified, 470 F.2d 289 (8th Cir. 1972).

\textsuperscript{79} Id. at 762.

agency's planning and decision-making process.\textsuperscript{81} If a potential alternative is not discussed in the impact statement, there should arise at least a rebuttable and probably a conclusive presumption that the alternative has not been considered by the agency. Certainly, outside critics will have been denied the opportunity to evaluate the potential alternative. In such a situation, as will be demonstrated later,\textsuperscript{82} a federal court should enjoin the project until the impact statement has been amended and a decision made on the basis of the new information. Thus, to protect itself from unnecessary delay, an agency should discuss all potential alternatives. Second, the impact statement is a means for an agency to establish itself in the mind of the public as being competent and trustworthy.\textsuperscript{83} If the agency fails to discuss all potential courses of action, the assumption will probably be made that the agency did not know about the alternative (indicating incompetence) or is attempting to hide something (indicating untrustworthiness). Even if this belief on the public's part does not lead to wasteful litigation, it does inhibit cooperation between the agency and the public. Third, if an agency does not discuss a potential alternative, no new information regarding that possibility will be obtained in the comment process, and thus it will not receive full consideration. Fourth, if an agency has done its homework, it is inconceivable that describing these "alternatives" and presenting the reasons that they are not actually feasible could be much of a burden, particularly when weighed against the benefits to be achieved. Thus, it is arguably unreasonable for an agency not to discuss all potential alternatives that it has investigated.

The feasibility of an alternative may be affected by many factors, such as its effectiveness, scope, time frame, cost, technical feasibility, or social feasibility. These categories are not all-inclusive, but a discussion of them should serve to focus attention on the more important problems involved in determining an alternative's feasibility. This feasibility in turn affects both the appropriateness of the alternative for discussion, and the degree of discussion required. Therefore, the next few pages shall be devoted to an analysis of the factors in an attempt to reach a determination as to when an alternative must be discussed.

\textbf{a. Effectiveness of the Alternative}

Perhaps the initial inquiry that an agency should make concerning each potential alternative is whether it will achieve the goals of the project, or at least an acceptable part of them.\textsuperscript{84} Of course, not all of the goals need to be achievable

\begin{itemize}
\item[\textsuperscript{81}] Environmental Defense Fund, Inc. v. Froehlke, 473 F.2d 346, 350-51 (8th Cir. 1972).
\item[\textsuperscript{82}] See notes 154-63 infra and accompanying text.
\item[\textsuperscript{84}] A primary purpose of the bill is to restore public confidence in the Federal Government's capacity to achieve important public purposes and objectives and at the same time to maintain and enhance the quality of the environment.
\item[\textsuperscript{84}] This prescription is, of course, not relevant to the alternative of taking no action, which must be discussed in every case. See authorities cited note 74 supra.
\end{itemize}
by every alternative given consideration. In some situations an alternative which could achieve only some of the goals of a proposal should be actively considered. This consideration is particularly necessary where a number of separate, distinct benefits are sought to be achieved. In such a situation an agency has the obligation to consider partial action, just as it has the obligation to consider no action at all. There should be nothing sacred and immutable about the proposed goals of a proposal, just as there should be nothing sacred and immutable about the tentative decision that one course of action seems best. The final decision-maker should be in a position to modify the proposed goals to fit a partial alternative, if that combination offers the best benefit-cost ratio, and if enough of the proposed benefits will be accomplished to justify the proposed action. This need for flexibility is another reason why priorities should be attached to the various benefits.

b. Scope of the Alternative

A second factor that is important in determining an alternative's feasibility is its scope. There are two relevant facets to an alternative's scope: its relationship to the goals to be achieved by the proposed action, and its relationship to the agency's jurisdiction and authority.

The first facet of this consideration is closely related to the question of partial effectiveness discussed immediately above. A partial alternative, one which will achieve one or more of several benefits proposed as the goal, should be considered as extensively in the impact statement as any actually feasible "whole" alternative. There is some decisional support for this proposition, and it would also seem to be supported by common sense. First, as suggested above, the goals of the proposed action may be modified in the final decision-making process. Second, in the case of a multiple-benefit proposal, various component alternatives can be substituted for one another. Third, even if the possibility of such a combination of component alternatives is not initially apparent, information generated by the comment process may suggest such a possibility.

The second facet of an alternative's scope, its relationship to an agency's area of jurisdiction, raises much more profound problems. The federal agencies are essentially specialists, having been created to deal with a restricted type of situation or problem. This approach offers definite advantages, such as the development of expertise and the avoidance of duplication of effort. It also offers some disadvantages, one of which is the difficulty of dealing with any problem that cuts across the agency boundaries. The environment, which demands systemic treatment, is such a problem. Prior to NEPA, many of the agencies had no statutory authority to consider environmental problems associated with their actions, and one of the explicit motivations for enacting

NEPA was to give each and every federal agency a mandate to consider environmental factors.\textsuperscript{86}

Had Congress merely told each agency to consider the environmental effects of its actions, NEPA would have been important, but would not have been earth-shaking. Congress went much further, however, and ordered each agency to consider the alternative means of achieving its goals. This mandate is at least somewhat earth-shaking, because in many cases the boundaries of agency jurisdiction are not drawn to correspond to this functional approach. For example, the Atomic Energy Commission, the Federal Power Commission, and the Department of Interior all have partial jurisdiction in the energy field. It would take a Department of Energy to deal with the means of achieving energy goals, if the agency preparing the impact statement were not forced to consider alternatives outside its area of jurisdiction. Thus, if we assume that the mandate to consider alternatives means all of the alternatives, and the courts have so held,\textsuperscript{87} then Congress did indirectly what might not have been easily done directly—it reorganized both the framework within which the agency decision-making process is to work, and the decision-making process itself.

There are two distinct situations in which these interagency difficulties might arise. The first would be a federal action of such large scope that its subject matter would necessarily involve more than one agency. The formulation of a national energy policy and the development of a program or programs to implement that policy would be a good example. Such a formulation of national policy would seem to require the preparation of an impact statement because it would of necessity commence the selection process which would foreclose environmentally desirable options and alternatives.\textsuperscript{88} However, the problems generated by this first type of situation might be reduced by setting up an overseer agency to coordinate the efforts of the subordinate agencies, and to assume overall authority for the preparation of the impact statement. A superagency such as a Department of Natural Resources could assume such tasks in many situations. Each subordinate agency would have working responsibility for the

\textsuperscript{86} 115 Cong. Rec. 29,055-56 (1969) (remarks of Senator Jackson).


\textsuperscript{88} In Natural Resources Defense Council, Inc. v. Morton, 458 F.2d 827 (D.C. Cir. 1972), the court noted that an impact statement evaluating all alternatives in the area of the energy crisis could have been prepared in connection with President Nixon's June 1971 "energy message," which included the directive concerning off-shore oil leases, the subject of the Morton case. Id. at 835. See 118 Cong. Rec. S8313 (daily ed. June 4, 1971) for the text of the President's message. The court said the Energy Subcommittee of the Domestic Council, which the President designated as the body with power to make over-all policy decisions in the field of energy, would have been the logical body to prepare such a statement. 458 F.2d at 835. The court stated, however, "we do not suggest it was improper to defer the impact statement from the time of programmatic directive to the time of the implementing specific actions." Id. It would seem that, had these events taken place after the effective date of NEPA, there would have been a serious violation of the Act.
part of the study concerning its own area of jurisdiction but, because the overseer agency would have overall authority, any problem arising from an agency's protecting its special interests could be minimized. The CEQ explicitly sanctioned such joint, cooperative efforts in a recent memorandum supplementing its guidelines on the preparation of impact statements.\(^89\)

The second type of situation occurs when an agency undertakes the study of a proposed action within its own area of jurisdiction, and is forced by NEPA to consider an alternative which is within the jurisdiction of another agency. An obvious problem is that the agency preparing the statement may not have the expertise to deal adequately with the extra-jurisdictional alternative. To force the agency to develop this expertise would be to promote inefficiency, and would ultimately lead to the destruction of the advantages which justify the agency system. There are other problems. What, for instance, should an agency do if it finds that an extra-jurisdictional alternative is better than any alternative within its own jurisdiction? This problem perhaps presents itself in the most acute form in the context of an agency with a developmental mission. For example, could the Atomic Energy Commission decline to develop a nuclear power plant on the ground that solar energy is a better alternative?\(^90\) Of course, one agency could not force another agency to undertake the development of an alternative it thought was superior but had no authority to undertake itself.

Even though the problems inherent in requiring agencies to discuss extra-jurisdictional alternatives do exist and are troublesome, they are not insoluble. Many of these problems would never arise if the government regularly prepared overview impact statements to consider the policy issues of broad policy and program formulations, and then subsequently prepared individual statements to discuss the "nuts and bolts" of the implementing projects. Once such overview statements were prepared, the basic policy issues would have to be re-questioned only if the situations changed or new information came to light. In most situations, this re-examination could be handled in a relatively brief supplement to the overview statement. Already some agencies are moving in this direction.\(^91\) Even if overview statements were routinely prepared in appropriate situations, there would remain a residual problem of extra-jurisdictional alternatives, if for no other reason than that many policy and program decisions were made before NEPA's effective date.

In these residual situations the solution lies in an effort to achieve greater

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89. Recommendations, supra note 29, at ¶ B(4) (Recommendation No. 8).

90. See Joint Hearings Before the Committee on Public Works and the Committee on Interior and Insular Affairs on the Operation of the National Environmental Policy Act of 1969, 92nd Cong., 2nd Sess., ser. 92-432, 396-404, 410-11 (1972) (remarks of R. C. Crampton, Chairman, Administrative Conference of the United States and Senators Baker and Buckley). Senators Baker and Buckley expressed some surprise at the remark of Mr. Crampton that it was "silly" to expect an agency to give up or even cut back its mission because of NEPA.

91. Apparently the Department of Interior has prepared impact statements on its oil shale program and on its exploitation of geothermal steam. Recommendations, supra note 29, at ¶ B(5).
and more flexible interagency cooperation. NEPA not only encourages, but virtually commands interagency cooperation in the preparation of impact statements,92 and in practice this cooperation must take place on a continuing and informal basis both in addition to and preceding the formalized comment process. There is no reason why this type of liaison cannot be expanded in the situation of the extra-jurisdictional alternative. It would not be difficult for the agency preparing the statement to contact the agency having jurisdiction over the alternative in question at an early planning stage, and request a preliminary report on the feasibility of the alternative. In many cases the agency with jurisdiction might already have given considerable thought to the alternative, and might even have prepared impact statements on it. In such cases the burden of preparing the preliminary report would be minimal. In cases where the agency with jurisdiction had not previously considered the alternative, benefits might well be derived from bringing the matter to its attention. In the case of an alternative which only Congress could handle because of the need for legislative action, the matter could be referred to the appropriate Congressional committee for its appraisal. The CEQ has facilitated this type of informal approach by explicitly recommending that an agency give "early notice" of a proposed action for which it knows it will be preparing an impact statement.93

c. Time-Frame of the Alternative

The time-frame of an alternative, which can best be thought of as the time it would take to implement it to the extent necessary to substantially achieve the desired benefits, may be quite important in determining its feasibility. The most important issue here is determining the standard against which the alternative's time-frame should be measured. There are at least three possibilities: that the alternative be available at the time the decision-maker intends to act; that the alternative be available soon enough to achieve the goals of the proposal by the desired completion date; that the alternative be available soon enough to achieve the goals by an acceptable date. As a preliminary matter, one should recognize that an alternative selected as a primary one may become available much more rapidly than if another potential alternative were tentatively selected. For example, the degree to which the government focuses its attention on mechanisms to clean up automobile exhausts as a primary alternative for abating air pollution will probably determine the rapidity with which such devices are developed, and thus will affect their "time-frame."

Most federal projects are designed far in advance. Thus, to require that an alternative be capable of immediate implementation at the moment when an agency decision-maker wants to act would be unreasonable. Indeed, an agency has the responsibility of "developing" alternatives.94 Frequently, however, a time limitation will be an inextricable element of the proposal's goals. For

93. Recommendations, supra note 29, at ¶ B(1), (Recommendation 5).
example, in *Natural Resources Defense Council, Inc. v. Morton*, the Department of Interior proposed to sell offshore oil and gas leases to meet a predicted energy shortage in the mid-1970's. The court held that the agency did not have to discuss in detail several alternatives, such as the development of oil shales and geothermal resources, which could not substantially affect the energy situation until after 1980. The court implied, however, that if the time-frame of the proposal changed, the agency would have to reconsider these alternatives. The court took the sensible approach of requiring the Department of Interior to consider currently unavailable alternatives that would be made available in time to accomplish the goals of the project.

Where the time element is not inextricably involved in the goals, the desired date of completion should not be considered determinative. An environmentally desirable alternative that would be available for implementation within the time frame of the project as initially conceived should not be arbitrarily classed as unsuitable if there is any possibility that it could be made available soon enough to provide a favorable cost-benefit balance. Assuming an agency must consider the alternatives of no action and partial action, then it is only reasonable that it should also consider the alternative of delayed action.

**d. Cost of the Alternative**

Cost alone should never eliminate a potentially feasible alternative from preliminary consideration. Cost, of course, will play a large part in the ultimate decisions of whether to go ahead with a proposal and which alternative course of action should be selected. However, cost alone does not supply the basis for a decision. Only a comparison of costs and benefits can supply the basis for the balanced decision demanded by NEPA. Traditionally, only economic costs were considered by agencies in arriving at a decision. Under NEPA, environmental costs must be considered as well.

In determining the feasibility of a potentially available alternative, particularly if it involves new technology, the reasonableness of its research and development costs should not always be judged solely on the basis of the cost-benefit ratio of that alternative in the context of a particular proposal. An agency should attempt to determine the usefulness of the newly developed technological alternative in other situations. In some cases, research and development costs should be spread over the whole spectrum of usefulness of a new technological alternative.

**e. Technical Feasibility of the Alternative**

The technical feasibility of a potentially available alternative is a combination of the concepts of cost and time, which are discussed in the two preceding sub-

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95. 458 F.2d 827 (D.C. Cir. 1972).
96. *Id.* at 837.
97. *Id.*
98. *Id.*
99. *Id.* at 834-36.
sections. After considering the technological accomplishments of modern, industrialized society, it is tempting to assume that, if enough time and money were spent, almost any necessary technological development could be achieved. Neither time nor money, however, is in unlimited supply, and thus the state of technological development is a limitation of considerable importance in determining an alternative's feasibility. However, it is not an absolute limitation. The agencies, under section 102(2)(D) have a mandate to "study" and "develop" appropriate alternatives.100 This mandate implies a duty to find the best possible alternatives, not just the best currently available alternatives. Some degree of imagination and initiative is required of the agencies. This proposition is supported by section 102(2)(G), which requires an agency to "initiate" and utilize ecological information in the planning and development of resource-oriented projects.101 Exactly how far an agency must go in this role of initiator and developer of alternatives can only be decided in the context of a specific situation.

f. Social Feasibility of the Alternative

What we have chosen to call the "social feasibility" of an alternative is a "catch-all" category. It primarily involves broad policy considerations and the exercise of judgment as to what will be acceptable to the public. An example of social feasibility and the necessity of its consideration in the impact statement can be found in Natural Resources Defense Council, Inc. v. Morton.102 Judge Leventhal, who wrote the majority opinion, thought that an alternative which necessitated the repeal of the antitrust laws would be so remote from reality as not to require consideration.103 The line Judge Leventhal drew, however, was not a clear one, for he held that the Department of Interior had to consider the alternative of abolishing oil import quotas.104 Oil imports quotas present complex policy considerations as they have their roots in both national defense and international trade considerations. By keeping foreign oil out of the country, two policy goals are arguably achieved; the production of domestic oil resources is stimulated, with secondary impacts on GNP, employment, and balance of payments, and, in addition, the country maintains its independence of the oil-rich but politically volatile Middle East. Such policy issues may obviously affect the cost-benefit ratio of an alternative, and in some extreme cases might even eliminate an otherwise feasible alternative. No matter how environmentally or economically desirable an alternative might be, it is doubtful that it could be considered feasible if it would seriously jeopardize the national security. Some courts have been unwilling to subject proposals to full NEPA scrutiny when serious national defense issues were involved.105

102. 458 F.2d 827 (D.C. Cir. 1972).
103. Id. at 837.
104. Id. at 834-36.
Another facet of social feasibility, which may be even more nebulous than the policy considerations, is what the citizenry will tolerate. For example, one alternative to any energy-producing project would seem to be some sort of energy rationing. The argument that the public would revolt if this alternative were adopted should not deter its consideration. What the public will tolerate is a function of the available alternatives. Ten years ago, it is doubtful that the public would have tolerated being searched before boarding an airplane. Weighed against the possibility of being skyjacked, however, being searched does not seem so objectionable. It is difficult to predict how the public will react to any particular proposal, and, if this factor is to be taken into consideration, there is really only one way to find out, which is to make the proposal. The public should be informed of all the potentially feasible alternatives by means of the impact statement and, if it then finds one totally unacceptable, the decision-maker can make an informed choice of alternatives, taking this public sentiment into account.

3. Requirements for Discussion of Alternatives

The duty of full disclosure, appropriately tempered by a standard of reasonableness, determines the requirements for discussing alternatives in an impact statement. As has been illustrated, the basic purpose of the impact statement is to inform. If the discussion of alternatives is not sufficiently informative, it is inadequate. Since the decisions to be made concerning alternatives are comparative in nature, sufficient information to support a comparative analysis must be presented in the impact statement. The agency—as well as outside critics, and possibly a federal judge—must be able to make two decisions on the basis of the impact statement: first, which alternative is best, and second, if the best alternative is good enough to justify going ahead with the project.

Some courts have said that all an agency must do to comply with NEPA is make a “meaningful reference” to an alternative. However, it is difficult to see how a meaningful reference can be deemed compliance. The above discussion has indicated that a minimally acceptable treatment of a potential alternative, even one which the agency's investigation has shown to be unfeasible, must include a concise description that is readily comprehensible to the average reader, and a clear statement of the agency's reasons for believing the alternative to be unfeasible. These reasons should be supported by documented evidence—anything less would frustrate the purpose of the impact statement. If an agency has irrefutable evidence that an alternative should not be considered, summary treatment is satisfactory. But if an alternative will achieve the desired goals, and is not clearly ruled out by some other considerations, then the agency should present enough information to support a careful balancing of benefits and costs. The amount of information which an agency must present concerning

106. See notes 13-21 supra and accompanying text.
the best alternative will always be great, because it will have to determine if the action is justifiable in terms of that alternative's benefit-cost ratio. The amount of information which the agency must present on other alternatives will depend on how closely competing those alternatives are. If one alternative is unquestionably inferior to another, all the agency need do is clearly establish its inferiority. If, on the other hand, there is a great deal of doubt as to which is inferior, the agency will have to present much more information about each in order to distinguish them. Of course, if there is room for dispute, an agency would be well advised to err on the side of too much information rather than to little.

As was discussed in the section on goals and benefits, the primary benefits of a proposed action will be predetermined. Each feasible alternative, or combination of partial alternatives, will presumably offer these benefits. Individual alternatives may offer additional, incidental benefits. These incidental benefits should be discussed, of course, but the chief variable that will differentiate the various alternatives will be their respective costs.

One type of cost that must be discussed is environmental cost—environmental impact, adverse environmental effect, and irretrievable and irreversible commitments of resources. The discussion of these environmental costs, which is explicitly required by the statute, is the heart of the impact statement. It could be argued that only the environmental costs of the recommended course of action need be discussed. This argument is made possible by the language of the Act, which implicitly recognizes that a tentative decision may be made in these early planning stages that one alternative is better than the others. Thus, section 102(2)(C) says that a detailed statement must be prepared on the environmental impact of "the proposed action," and on "alternatives to the proposed action." However, the courts have rejected the argument that only the costs of the recommended alternative must be discussed, and have held that the environmental costs of all alternatives must be analyzed. One court surmised that the "essence and thrust of NEPA" is to "gather in one place a discussion of the relative environmental impacts of all the alternatives." The CEQ agrees with this position in its guidelines. The duty of full disclosure requires that the discussion of environmental impacts be sufficiently detailed, comprehensive, accurate, and objective to make possible a careful evaluation of the relative merits of the competing alternatives.

Under NEPA, however, environmental factors are not the sole component of

108. See notes 44-57 supra and accompanying text.
113. Guidelines, supra note 3, at ¶ 6 (iv). "Sufficient analysis of such alternatives and their costs and impact on the environment should accompany the proposed action through the agency review process . . ." Id. (emphasis added).
decision-making. Environmental factors were merely added to the more traditional components such as economic and technological factors, and various policy considerations. All of these components must now be weighed and balanced in arriving at the optimum decision.\footnote{114}

Since economic factors must be considered in the decision-making process, it is sensible that they should be presented in the impact statement.\footnote{115} Certainly, the various alternatives cannot be comparatively evaluated by an outside critic if no economic information is presented in the statement, even though the argument could be made that the agency decision-maker would otherwise have access to this information. The CEQ takes the position that both the environmental and economic costs of each alternative must be discussed.\footnote{116} Although the Act itself is by no means clear on this point, its language is certainly susceptible to this interpretation. Of all the required topics of the detailed statement listed in section 102(2)(C), only the requirement to discuss alternatives is free from an explicit environmental context.\footnote{117} Thus it would seem that the whole alternative in all its aspects should be discussed. The same is true of section 102(2)(D).\footnote{118}

Unfortunately, the only decision to analyze in depth the requirement to discuss alternatives, \textit{National Resources Defense Council, Inc. v. Morton},\footnote{119} can be read restrictively as requiring only a discussion of the environmental costs (and not economic costs) of the alternatives other than the recommended alternative.\footnote{120} The court said:

The impact statement provides a basis for (a) evaluation of the benefits of the proposed project in light of its environmental risks, and (b) comparison of the net balance for the proposed project with the environmental risks presented by alternative courses of action.\footnote{121}

The court seems to indicate by use of the term "net balance" that it would have the agency discuss economic factors for the recommended alternative, for it cites as authority for the quoted proposition the section of the CEQ's guidelines which requires consideration of both "costs" and "impact on the environment."\footnote{122} If the court is using "proposed project" as the Act uses "proposed action," meaning the recommended alternative, then it is arguably excluding economic factors from the discussion of the other alternatives. If the court did mean to make such an indication, the ruling may be limited to its facts. The court was primarily considering an extra-jurisdictional alternative which involved questions of economics, foreign relations, and national security, and thus may have felt the a-

\begin{itemize}
  \item \footnote{114} Calvert Cliffs' Coordinating Comm., Inc. v. AEC, 449 F.2d 1109, 1113-14 (D.C. Cir. 1971).
  \item \footnote{115} \textit{Id.; Daly v. Volpe, 350 F. Supp. 252, 259 (W.D. Wash. 1972); Recommendations, supra note 29, at ¶ A(2).}
  \item \footnote{116} \textit{See Guidelines, supra note 3, at ¶ 6(iv).}
  \item \footnote{118} 42 U.S.C. § 4332(2)(D) (1970).
  \item \footnote{119} 458 F.2d 827 (D.C. Cir. 1972).
  \item \footnote{120} \textit{Id.} at 833-34.
  \item \footnote{121} \textit{Id.} at 833 (footnote omitted).
  \item \footnote{122} \textit{Id.} & n. 12, citing Guidelines, supra note 3, at ¶ 6(iv).}
\end{itemize}
gency was not a competent commentator.\textsuperscript{128} Despite this fact, the court seemed to feel that the agency could at least deal with the environmental aspects of the alternative.\textsuperscript{124} Whatever reading may be given to the Morton case, other courts have indicated that the economic costs of the various alternatives should be discussed in the impact statement.\textsuperscript{125} This "economic information should be presented in summary form, so as not to destroy the environmental focus of the statement."\textsuperscript{126} To the extent that technical and policy factors which bear on the benefit-cost analysis cannot be reduced to economic terms, they should also be discussed.\textsuperscript{127} All these requirements seem to be implicit in the Act, if the statement is to serve as the basis for a decision on the relative merits of the various alternatives.

Because of the practical problems involved, an agency should probably not be held to the normal standard in the case of extra-jurisdictional alternatives. In such cases, the agency preparing the statement is almost totally dependent on other agencies for information. If the agency can show a good-faith attempt to acquire the necessary information, a "meaningful reference" to the potential problems presented by the alternative is probably sufficient. This lesser standard would seem to be required by a standard of reasonableness, even in the area of environmental impact. Depending on the situation, the District of Columbia Circuit Court of Appeals' assumption that an agency could at least handle a discussion of an extra-jurisdictional alternative's environmental impact\textsuperscript{128} may involve a serious fallacy. How could the environmental impact of an alternative be adequately discussed without an adequate knowledge of the alternative itself?

In presenting the information about the various alternatives, agencies have a duty to present information and viewpoints contrary to their own, so long as that opposing view or evidence is "responsible."\textsuperscript{129} The agency probably does not have an "equal time" obligation, so long as it is acting in good faith, but it should clearly state the opposing position or evidence, with sufficient references, and state and support its reasons for disagreeing.\textsuperscript{130} This requirement applies whether the information comes to the agency's attention during its planning stages or through the formal comment process. A knowing suppression of respon-

\begin{itemize}
\item \textsuperscript{123} 458 F.2d at 834.
\item \textsuperscript{124} \textit{Id}.
\item \textsuperscript{125} See authorities cited note 115 supra.
\item \textsuperscript{126} \textit{Recommendations, supra} note 29, at ¶ A(2).
\item \textsuperscript{127} Calvert Cliffs' Coordinating Comm., Inc. v. AEC, 449 F.2d 1109, 1113-14 (D.C. Cir. 1971).
\item \textsuperscript{128} See notes 117-24 \textit{supra} and accompanying text.
\item \textsuperscript{129} Committee for Nuclear Responsibility, Inc. v. Seaborg, 463 F.2d 783, 787 (D.C. Cir. 1971).
\item \textsuperscript{130} Arguably, the district court in \textit{Seaborg} meant to convey a lesser standard by saying that all that is needed is a "meaningful reference that identifies the problem" involved in an opposing view. \textit{Id}. This standard, however, would seem to defeat the informational purposes of the Act and would critically limit the ability of the decision-maker to evaluate alternatives and concepts not espoused by the agency. Therefore, this standard should be rejected.
\end{itemize}
sible opposing information would violate the duty of full disclosure and should render the impact statement inadequate as a matter of law.\textsuperscript{131}

4. Sections 102(2)(C)(iii) and 102(2)(D): Key to Larger Issues

The CEQ and the courts have recognized that unnecessary and unjustified environmental degradation can be prevented only if alternative courses of action are not prematurely foreclosed. Consequently, they have held that all feasible alternatives must be substantively considered before an agency takes any action or makes any decision which might foreclose options.\textsuperscript{132} Although this proposition may seem straightforward and unpretentious at first glance, its ramifications are rather startling. It effectively dictates at what stage in the proposal’s formulation an agency should prepare an impact statement, how the agency should define the proposal, and what a federal court should do in situations where an impact statement has not been prepared or where a statement has been prepared but the alternatives have not been adequately discussed.

a. Choosing the Stage at Which an Impact Statement Must Be Prepared

The effect of the requirement of considering all alternatives before foreclosing any of them on the choosing of a developmental stage at which a statement must be prepared can be illustrated by the case of a federal-aid highway. This situation is a complex one, because it involves both joint federal-state action and a number of procedural stages. For the purposes of this Article, only an outline of the relevant statutory scheme is needed.\textsuperscript{133} Pursuant to the Federal-Aid Highway Act,\textsuperscript{134} a state can apply for federal assistance in building a highway.\textsuperscript{135} The initial stage of development is the program stage, where the state submits for approval a plan for the utilization of funds appropriated for the fiscal year.\textsuperscript{136} Next comes a routing stage after which the state receives “location approval.”\textsuperscript{137} In light of the previously discussed necessity of not permanently foreclosing alternatives, one must ask at what stage of the process must an impact statement be prepared? The threshold issue is when the action becomes “federal,” because NEPA applies only to federal actions.\textsuperscript{138}

\textsuperscript{131} Not only would such a suppression be a breach of the duty of full disclosure and constitute an arbitrary action, see id. at 787, but it would threaten the integrity of the Act as well. City of New York v. United States, 337 F. Supp. 150, 159-60 (E.D.N.Y. 1972).

\textsuperscript{132} See Lathan v. Volpe, 455 F.2d 1111, 1120-21 (9th Cir. 1971); Calvert Cliffs’ Coordinating Comm., Inc. v. AEC, 449 F.2d 1109, 1117-18, 1128 (D.C. Cir. 1971); Guidelines, supra note 3, at ¶ 2.


\textsuperscript{135} Id. § 105.

\textsuperscript{136} Id.

\textsuperscript{137} Id. § 103(d).

Raza Unida v. Volpe, the court held that a highway project becomes a federal-aid highway, and thus a "federal action," when it receives location approval. The court felt that "[t]he state should not have the considerable benefits that accompany an option to obtain federal funds without also assuming the attendant [NEPA] obligations." It should also be noted that once an action becomes "federal," it may be irrevocably federal.

As pointed out above, the agency should prepare an impact statement prior to making any decision which might foreclose alternatives. Here, that decision is the same one which makes the project federal, and thus the state and the Federal Highway Administration should prepare an impact statement prior to location approval. Such was the holding in Lathan v. Volpe, where the court determined that location approval would tend to foreclose alternatives. In Latham, location approval, but not design approval, had been granted. The Ninth Circuit pointed out that, as soon as location approval is granted, the property in the corridor becomes virtually unmarketable at a fair price, and the quality of the neighborhood deteriorates rapidly because the residents know they will be forced to move. Thus, environmental damage to the neighborhood, which alternative routes might avoid, is inalterably committed by the time design approval is granted, and long before the bulldozers actually go to work. In addition, because a great deal of right-of-way property is acquired between the granting of location approval and the granting of design approval, the project acquires a momentum which makes objective consideration of inaction almost impossible, and thus there is also a foreclosing of that alternative.

b. Shaping the Definition of the Proposal

The requirement that all feasible alternatives must be substantively considered before any options are foreclosed tends to shape the way in which a proposal must be viewed. This fact can also be illustrated by federal-aid highways. Many federal actions, and particularly federal-aid highways, are segmented for administrative purposes. Thus, administratively, a "project" may consist of a 3.4 mile

140. Id. at 227.
141. Id.
145. 455 F.2d 1111, 1120-21 (9th Cir. 1971).
146. Id. at 1114.
147. Id.
148. For example, in Lathan v. Volpe, prior to design approval 184 property owners had sold out to the state as "hardship" sellers and 103 families had already left the designated area. Id.
segment of highway. Let us suppose, however, that this “project” is one small segment of a beltway around a city. For the purpose of considering alternatives to the beltway itself, one would have to consider the beltway as a whole. Obviously, the focus of a statement on the 3.4 mile segment would be too microscopic to take in the overall alternatives. Although one might move the segment 50 yards to the north to avoid a stand of centuries-old trees, the only alternatives are slightly different routes between points X and Y which are 3.4 miles apart. The alternative of no action in this microscopic context is really no alternative at all because the end result would be a beltway rendered almost useless because of a 3.4 mile gap. Conversely, once one segment is approved, the whole beltway is “locked-in”, and the alternative of no-action becomes, from a practical standpoint, merely hypothetical. 149 For these reasons, courts have held that projects cannot be segmented, and that, at least for NEPA purposes, they must be treated as logical wholes. 150 Such treatment would be required in the beltway example even if the 3.4 mile segment were the only segment for which the state sought federal assistance. 151

Further ramifications of the proposition that all alternatives should be considered before any decision is made which might foreclose options can be illustrated by looking at the decision-making that lies behind the availability of funds for federal-aid highways. Suppose the executive branch is considering, as a matter of policy, the establishment of a program to encourage states to meet their urban transportation problems by building beltways around their urban areas. Implicit in such a policy decision is the proposition that federal funds will probably be less available to subsidize other means of coping with the urban transportation problems, such as mass transit systems. Consequently, unless an impact statement is prepared for this proposed beltway policy decision, alternatives will be foreclosed without the environmental balancing analysis required by NEPA.

However, a single impact statement covering both the policy decision and the construction of the individual beltways pursuant to the established policy would be impractical. First, plans for all of the beltways would not be completed for many years, and each beltway would progress through the planning stages at varying speeds. There would be no reason to delay consideration of the policy decision until all of the implementing beltways were planned, and since the policy decision to support beltways might not be made, such delay would also be potentially wasteful. Second, even if all the beltways were already planned it would be impractical to cover the whole program in one statement. To do so in enough detail to satisfy the purposes of the statement would result in an impact statement so unwieldy it could not be used. Its focus would be so

149. For a good example of this kind of situation see Iowa Citizens for Environ. Qual. v. Volpe, 4 Environment Rptr. 1755, 1756-59 (S.D. Iowa 1972).
diverse as to render intelligent comment almost impossible. Its sheer bulk would make it difficult to transport from place to place, and enormously expensive to send through the mails.

The intelligent solution to the problem would seem to be the preparation of an overview statement covering the policy issues and alternatives.\textsuperscript{152} Then, as the planning was completed on the individual beltways, individual statements with a purely local focus could be prepared for each. The broad policy questions would be taken care of and would not need to be reargued, unless the situation had changed substantially. Supplementary statements re-evaluating the policy decision could be prepared to deal with changes occurring in the period between the initial policy decision and planning of the individual beltways. For example, re-evaluation of the beltway decision might be necessitated by the effect of anti-air pollution laws on traffic patterns. Indeed, it is quite probable that supplementary statements would need to be filed each time an appropriation request was submitted to Congress, since such a request would be a favorable recommendation on a legislative proposal having a significant impact on the environment.\textsuperscript{153} It should be noted that the previous discussion of multi-agency programs and extra-jurisdictional alternatives would be applicable in many situations where broad policy decisions were made or sweeping programs were established.

c. Injunctive Relief and the Duty of Full Disclosure

NEPA's requirement that an agency consider all feasible alternatives before making any decision which might foreclose environmentally desirable options also determines a court's duty in enforcing the agency's duty of full disclosure. Where an agency has failed to prepare an impact statement at all, or where an impact statement inadequately considers alternatives, a federal court should enjoin the action until the defects in the statement are remedied. As the court concisely stated in \textit{Stop H-3 Association v. Volpe}:\textsuperscript{154}

The very essence of N.E.P.A. lies in the presumption that the thorough re-evaluation of a project which occurs when a N.E.P.A. statement is reviewed may lead to a decision to abandon or substantially alter the project. ... Accordingly, while the N.E.P.A. review is ongoing, there should be (1) no continuing commitment to the project as if it were a fait accompli, for it is not; and (2) no action undertaken which makes it more difficult for the reviewing agency to impartially review and subsequently, if warranted, alter the project.\textsuperscript{155}

Normally there are four requirements for a preliminary injunction: (1) a showing of substantial likelihood that the plaintiff will prevail on the merits; (2) a showing of irreparable injury to the plaintiff; (3) a showing that harm for the defendants will not be greater if the injunction is granted; and (4) a showing

\textsuperscript{152} See Recommendations, supra note 29, at § B(5) (Recommendation No. 5). For a discussion of such overview statements see \textit{Joint Hearings Before the Committee on Public Works and the Committee on Interior and Insular Affairs on the Operation of the National Environmental Policy Act of 1969}, 92d Cong., 2d Sess., ser. 92-H-32, 89-90, 98, 100 (1972) (remarks by Dr. James R. Schlesinger, Chairman, AEC).

\textsuperscript{153} See \textit{Environmental Defense Fund v. TVA}, 468 F.2d 1164, 1181-82 (6th Cir. 1972).

\textsuperscript{154} \textit{Id.} at 17.
that the public interest will be served by granting the preliminary injunction.\textsuperscript{156} In the NEPA situation the plaintiff should obtain an injunction if he can make a showing sufficient to meet the first requirement. A showing that the agency has not given adequate consideration to alternatives in the impact statement, and thus has not met its statutory duty, is sufficient to show a probability of success on the merits whenever the agency is about to take action which will foreclose some options. The satisfaction of the other requirements is usually inherent in situations where the first one is met.

It is obvious that action which will have a direct effect on the environment, and which is taken before the adequate consideration of all alternatives, will cause irreparable harm to the plaintiff, for otherwise the environmental harm which other alternatives might avoid will already have been committed by the time the more desirable alternatives are "considered." It may be quite so obvious why action which will have no direct effect on the environment should necessarily be enjoined during the preparation or re-writing of the impact statement, until one thinks of the no-action alternative. Although the degree of a project's completion should affect the need to prepare an impact statement only in the most extreme cases,\textsuperscript{157} the amount of work already completed is properly cognizable in determining whether to abandon the project or to go ahead with it.\textsuperscript{158} Consequently, a number of courts have recognized that the more money an agency spends on a project, whether or not those expenditures directly result in environmental harm, the less likely it is to give serious consideration to abandoning the project.\textsuperscript{159} In the cases where an agency wants to continue activities which will have no direct effect on the environment pending completion of the statement, the element of irreparable harm to the plaintiff is provided by the preclusion of full and objective consideration of the no-action alternative.\textsuperscript{160}

The other two required elements, that the harm to defendants will not be increased and that public interest will be served, will probably be present in most NEPA cases. It is clearly in the public interest to have full consideration given to all feasible alternatives before a decision is made, especially in light of the policy statement contained in the Act. It is conceivable the agency would be able to show greater harm arising from the injunction, but such harm is most

\textsuperscript{156} See Allison v. Froehlke, 470 F.2d 1123, 1126 (5th Cir. 1972).
\textsuperscript{158} Environmental Defense Fund v. TVA, 468 F.2d 1164, 1179-80 (6th Cir. 1972); Environmental Defense Fund, Inc. v. Corps of Eng'rs, 325 F. Supp. 728, 745-46 (E.D. Ark. 1971) (Gillham Dam No. 1, Memorandum Opinion No. 4), modified, 470 F.2d 289 (8th Cir. 1972).
\textsuperscript{160} Scherr v. Volpe, 336 F. Supp. 882, 886 (W.D. Wis. 1971), aff'd, 466 F.2d 1027 (7th Cir. 1972) (loss of careful, informed decision-making process satisfies the irreparable harm requirement).
often financial, and it has been held that financial harm to an agency is not irreparable harm that would defeat an injunction. In any case, courts have held that in the NEPA situation there is no need for a balancing of the equities, or an invocation of judicial maxims, because a preliminary injunction will effectuate declared congressional policy. In reaching this conclusion, courts have realized that the NEPA situation is one of those comparatively rare cases in which a plaintiff must receive relief immediately if that relief is to be worth anything when obtained. The requirement of considering all alternatives before foreclosing any should not mean that any minor deficiency in an impact statement will prevent an agency from going ahead with a project. However, the only time an agency should be allowed to proceed with a project before a satisfactory impact statement is completed is when the agency can conclusively show that inaction is not the best alternative, and that its action cannot possibly foreclose primary or secondary alternatives still to be considered. Even if the agency can make such showings, one might still argue that the integrity of the Act dictates that the agency should not be allowed to proceed unless time is of the essence.

C. Environmental Impacts

Although NEPA requires an agency to study and discuss in its impact statement all aspects of the various alternative courses of action open to it, the primary focus of the statement is unquestionably on the environmental impact of each alternative. Much of what has been said in this Article about an agency's study and discussion of alternatives is applicable to the agency's study and discussion of environmental impacts. The latter is one important component of the former. The alternatives must be comparatively evaluated, and the respective environmental impacts of the various alternatives are key elements of that comparative evaluation. Consequently, the duty of full disclosure, tempered by the rule of reasonableness, determines the type and amount of information concerning environmental impact that an agency must include in its statement. And, as was pointed out in the discussion of the duty of full disclosure, an agency must fulfill two analytically separate functions to satisfy this duty: the research function and the presentation function.

Before an agency can hope to fulfill its research function, it must know the

163. Lathan v. Volpe, 455 F.2d 1111, 1117 (9th Cir. 1971).
164. This emphasis is reflected in the statutory language. Except for the requirement to discuss alternatives in subsection (iii), each of the topics for discussion in the impact statement in section 102(2)(C) focuses on some aspect of "environmental impact" in its broadest sense. Subsection (i) requires discussion of environmental impact, subsection (ii) of adverse environmental effects, subsection (iv) of the relationship of short-term and long-term environmental uses, and subsection (v) of irretrievable resource commitments.
165. See notes 13-34 supra and accompanying text.
limitations of what it is looking for; it must know how inclusive the term “environmental impact” is. Generally, any significant change in the human environment, beneficial or detrimental, resulting directly or indirectly from a federal action, should be an “environmental impact” under NEPA. The Act explicitly states that the relevant environment is the “human environment.”\textsuperscript{166} The “human environment” would seem to include the “natural environment” but not be limited to it. Thus, increased traffic in an urban area and its attendant environmental effects would be an environmental impact of a federal action which caused that increase.\textsuperscript{167} For the same reason, an environmental impact can be intangible as well as tangible. Almost certainly the psychological effects of locating a federal prison in a residential area would be an environmental impact.\textsuperscript{168} The requirements of section 102(2)(C) make it clear that an agency must discuss much more than just the direct, immediate environmental effects of its proposed action. The agency must study and discuss the long-range and secondary effects as well.\textsuperscript{169} For example, the construction of a highway through a previously undeveloped area may precipitate rapid development of that area. This development may have long-range environmental impacts much more profound than those caused by the construction itself, and these effects must be considered in deciding whether to build the highway.

The agency must also study and discuss the cumulative or synergistic effects of its proposed action.\textsuperscript{170} For example, a large lake might be able to cope with the heat discharged by a single nuclear power plant. The combination of several such discharges might “kill” the lake, however, making the synergistic effects of the several discharges much greater than the sum of their individual effects. The agency would also have to consider potential combining factors over which it had no jurisdiction, such as the discharge by a private company of a chemical substance in the vicinity of a proposed power plant’s thermal plume, the toxicity of which would be increased by the heat.

Obviously, if an agency is not to become hopelessly bogged down, it must formulate an approach which will allow it to conduct its research in a systematic, efficient manner. Since environmental change is the touchstone, it would seem that an inventory of the status quo in the affected area would be of tremendous assistance. In many cases this inventory process can be accomplished largely through review of the relevant literature and consultation with individuals and groups with useful knowledge or expertise. For example, if an agency’s proposed action will affect birds, and if a local chapter of the Audubon Society has conducted semi-annual bird counts in the affected area for the past 15 years, such information would be ready-made for the agency’s use. As was pointed out previously, however,\textsuperscript{171} NEPA imposes an affirmative duty on the

\textsuperscript{168} Hanly v. Klienidienst, 471 F.2d 823, 839 (2d Cir. 1972) (Friendly, C.J., dissenting).
\textsuperscript{169} Guidelines, supra note 3, at ¶¶ 6(a)(ii), (v).
\textsuperscript{170} Id. ¶ 6(a)(v).
\textsuperscript{171} See notes 13-34 supra and accompanying text.
agencies to develop information necessary to evaluate the proposed action. If such information were not available from the Audubon Society, or a similar source, then the agency would have to conduct field studies to obtain the information. Since this research is part of the agency's statutory mandate, the cost of such studies must be considered part of the project, just like any other developmental expenses.

The Corps of Engineers has designed a "checklist" to aid in this cataloguing process.\textsuperscript{172} It has broken down environmental impacts into seven "environmental elements," such as "geological," "zoological," and "archeological/historical/cultural." These categories could be broken down into sub-categories; "zoological," for example, could be broken down into "mammals," "fish," "birds," "benthic organisms," etc. "Mammals" could then be broken down into "deer," "rabbits," "bear," etc. As the research is conducted, the appropriate sub-sub-category could be checked off, and quantitative and qualitative information recorded. With such an organized, standardized approach, and with accumulated experience, an agency would soon be able to do much of the work almost mechanically, particularly in the case of the direct, immediate impacts. Each agency would become quite knowledgeable regarding the typical impacts associated with each type of project. Impact statements of past actions would become data resources for statements on future actions. Of course, the agencies and their outside critics must guard against boilerplate impact statements which utilize out-of-date or inaccurate information. Particularly in the area of long-term and cumulative impacts, more individualized, imaginative attention will be required. It is in this area that the interdisciplinary approach will be most important, for only the wide-angle viewpoint of an interdisciplinary team will be able to discern relationships among the numerous factors which will have to be considered.

The second function the agency must fulfill to discharge its duty of full disclosure is the presentation of its research in the impact statement. Because Judge Keady's opinion in \textit{Environmental Defense Fund, Inc. v. Corps of Engineers} \textsuperscript{173} is detailed and deals with most of the questions involved in the presentation aspect of the duty of full disclosure, a brief discussion of it will serve to highlight, albeit in a somewhat negative fashion, the relevant issues.

This case dealt with the impact statement filed by the Corps of Engineers for its Tennessee-Tombigbee Waterway project, involving Alabama and Mississippi.\textsuperscript{174} Most of the plaintiff's many objections were directed at the alleged insufficiency of the Corps' discussion of the environmental impacts of the project.\textsuperscript{175} The court dismissed all of these objections, many of which seem to have been justified, and vindicated the sufficiency of the Corps' statement in every respect.\textsuperscript{176}

\textsuperscript{174} \textit{Id.} at 919.
\textsuperscript{175} \textit{Id.} at 925-27.
\textsuperscript{176} \textit{Id.} at 940.
A major objection to the court’s handling of the case stems primarily from what appears to be a total misconception of the function and purpose of the NEPA requirements. The court misreads the legislative history as indicating that an impact statement is to supply “explicit findings concerning the environmental impact which will or may result from the proposed activity.”177 This reference, however, is to the bill as it stood on October 8, 1969, before the Senate-House Conference changed the requirement from “explicit findings” to a “detailed statement,” and applied the “to the fullest possible extent” language to the requirement.178 These changes opened up the agency decision-making process to outside scrutiny, created the duty of full disclosure, and transformed the impact statement from a conclusionary memorandum of the decision-making to the very basis for the decision-making.

The impact statement filed by the Corps in effect says, in numerous places, “We do not have the information now, but we are conducting studies.”179 For example, the Corps states that the optimum method of disposing of an estimated 260 million cubic yards of excavated material has not yet been determined, but that a significant amount of the total engineering and environmental studies will be devoted to this concern.180 It then lists several extraordinarily vague possible methods of disposal, and says that “efficacious handling of this material will present numerous opportunities to provide both short-term and long-range environmental improvements.”181 Obviously, the disposal of this much dirt and rock may involve substantial environmental harm, the Corps’ facile statements to the contrary notwithstanding. The method of disposal and a quantified estimate of the environmental costs (or benefits) should be available before a decision is made by the agency to go ahead with the project. In answer to the plaintiff’s objection to the Corps’ approach, however, the court replied:

... it would be wholly impracticable to require that the ultimate environmental design for the disposition of this material be included in the EIS. To rule otherwise would require an agency to compile virtually complete engineering data merely to prepare an impact statement.182

What the court does not seem to understand is that the impact statement is the basis of decision, and that the information on the basis of which the decision will be made must be available when the decision is made, and must be in the statement. Otherwise, alternatives, and particularly the alternative of no-action, will be foreclosed.

Throughout the opinion, the court assumes that the mere mention of an impact, the barest act of bringing it to the attention of the reader, is sufficient to

177. Id. at 932, quoting from 115 Cong. Rec. 29,068 (1969).
179. Excerpts from the text of the Corps’ impact statement are appended to the court’s opinion. 348 F. Supp. at 942.
180. Id. at 946-47.
181. Id. at 947.
182. Id. at 938-39 (emphasis added).
meet the requirement of detailed discussion. At one point the court states:

"[w]e summarily reject the claim that oxbow lakes are not sufficiently mentioned in the EIS as a significant effect of the project."¹⁸³ In fact, the Corps made two brief, conclusory statements concerning the problem.¹⁸⁴ While the problem was vaguely brought to the reader's attention, the reader could have no idea how serious it might be. On the basis of the Corps' "discussion," no independent evaluation of the problem could be made, nor could it be taken into account in a benefit-cost analysis. The Corps made no attempt whatsoever to quantify this impact and many of the others which it admitted would occur, nor did it indicate to what extent the impact could be alleviated. It made the bare statement that "[m]easures will be taken to alleviate sitiation . . . "¹⁸⁵ but gave no indication what measures would be used, what environmental impacts they might involve, or how much such operations would cost. The court's attitude is summarized in this statement: "[t]hese direct references to oxbow lakes and their tendency to rapidly fill with deposits of silt are sufficient to put anyone on notice of the adverse effects of the cutoffs made at the indicated locations on the Tombigbee River."¹⁸⁶ This assertion is correct, but there is lacking the quantitative content to this notice which is required by the Act.

Another good example of the court's acceptance of unsupported, conclusory statements by the Corps occurred when the plaintiff objected to the Corps' cursory treatment of waterlogging. The Corps twice mentioned the possibility of "localized waterlogging" in low lying areas, but concluded, without more, that such waterlogging should be of no major significance.¹⁸⁷ The plaintiff pointed out that this impact was a potentially serious one since 70,000 acres were being committed to the project, but only 40,000 acres would actually be covered with water.¹⁸⁸ The court said:

To answer this criticism, the EIS would have to include topographic maps of the entire area and backup data on land use, water levels and solid content. There was no showing that the Corps did not have proper maps and adequate data to justify its conclusion. To require the inclusion of such corroborative material in the EIS merely to explain what is meant by "localized waterlogging" would be without useful purpose.¹⁸⁹

The court missed the import of the duty of full disclosure and the purpose of the impact statement. The purpose of the statement is not merely to explain the environmental impacts. The burden of showing that the agency did not have sufficient data to support its conclusion is not on the plaintiff. He need only show that the information provided by the agency is not sufficient to satisfy the purposes of the statement. The duty of full disclosure, if it has any meaning at all, requires the agency to support and justify its conclusions.

¹⁸³. Id. (emphasis added).
¹⁸⁴. Id. at 942, 945.
¹⁸⁵. Id. at 942.
¹⁸⁶. Id. at 939.
¹⁸⁷. Id. at 943, 945, 951.
¹⁸⁸. Id. at 939.
¹⁸⁹. Id. The CEQ Guidelines suggest that maps should be used if they are relevant. Guidelines, supra note 3, at ¶ 6(A)(i).
The court relies on the CEQ Guidelines for the proposition that only "probable" and "significant" impacts need be discussed. While one cannot quarrel over these standards in the abstract, it is obvious that the court interpreted them in an extremely permissive manner. The court gave three reasons for concluding that the Corps need not discuss the impact of the project on individual species of animals which would probably be eliminated in that area. First, no proof was offered that the species served a unique function and, second, it would take many years to develop such proof. The third reason was that there would be "close relatives" of these species in the area. While the loss of a species might not be significant enough to cancel a project, it would certainly seem that it should be discussed. The purposes of the Act would seem to require that the level of "significance" be set quite low, at least as a trigger for discussion.

In the case just discussed the court was far too generous in letting the agency avoid discussion of environmental impacts. There are limitations on what impacts an agency needs to discuss, however. If an impact is too speculative, it need not be discussed. Different courts have stated this limitation in different ways. One thought that all "possible" impacts should be discussed; another thought that only "probable" impacts need be discussed. The former seems too expansive, and the latter too restrictive. Rather it would seem that all "reasonably foreseeable" impacts should be discussed, and the standard for foreseeability should be set by experts in the relevant field. If the agency fails to solicit expert opinion in the relevant areas, it has failed to fulfill its research function. Nor should "reasonably foreseeable" be taken to mean that there must be a consensus of experts. If one responsible and reputable source thinks that a given impact will occur, the agency should discuss it.

There is also a de minimis level below which an impact has no real significance and need not be discussed. The threshold of significance is quite low, however, and should not be determined either by reference to the costs or benefits of the proposed action, or by reference to whether the action might be abandoned because of it. The test of significance involves two factors: the degree to which the environment will be changed, and the resulting level of environmental quality. To illustrate, a small increment of increased air pollution might not be particularly significant in the context of perfectly clean air. But in the context of highly polluted air, that increment might make the difference between a bad

190. Id. at 932-33.
191. Id. at 934.
195. Recommendations, supra note 29, at ¶ A(1).
situation and an intolerable one. Hence, an impact might be insignificant under the first test, but significant under the second.

Judge Eisele made the statement in *Environmental Defense Fund, Inc. v. Corps of Engineers*°7 that no agency can be expected to prepare a perfect impact statement.°8 He is undoubtedly correct, as new information is constantly becoming available, thus making every statement somewhat obsolete. Therefore an agency should not be unduly penalized for failing to obtain information if it made reasonable efforts to obtain it and could not, or if there was no reason to suspect that the information existed. However, if the missing information is crucial to the comparative evaluation of alternatives, then the agency should not be allowed to proceed with the action until the information is obtained and assimilated. The integrity of the Act demands that any significant deficiencies be corrected. Only when the deficiency is so crucial as to seriously impair the process of comparative evaluation, or when the agency has failed to act in good faith, should the action be enjoined pending correction of the deficiency. Obviously, if there are a large number of minor deficiencies, their total effect may seriously impair the process of comparative evaluation.

D. Secondary Alternatives

NEPA commands an agency to consider two analytically separate classes of alternatives. The first class, primary alternatives, has been discussed above. Primary alternatives include both the various alternative courses of action by which an agency can achieve its desired goals and the alternative of no-action. Secondary alternatives, on the other hand, are modifications of primary alternatives which will lessen their environmental impact. Both the CEQ *Recommendations* and at least one court have interpreted section 102(2)(C)(iii) and section 102(2)(D) as requiring consideration of both primary and secondary alternatives, seemingly without drawing any distinction between the two,°9 and this result would appear most reasonable. This Article deals separately with primary and secondary alternatives because the statutory basis for considering secondary alternatives is somewhat different from the statutory basis for considering primary alternatives, and because the two types of alternatives must be considered at different stages in the analytical process.

Subsection 102(2)(C)(iii) clearly requires the consideration of primary alternatives. Without more, however, one could argue that it does not require consideration of secondary alternatives. Two other subsections of section 102(2)(C) require the consideration of secondary alternatives, however, at least by strong implication. Subsection 102(2)(C)(ii) requires that the agency prepare a detailed statement concerning adverse environmental effects which cannot be avoid-

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197. 342 F. Supp. 1211 (E.D. Ark.) (Gillham Dam No. 2, Memorandum Opinion No. 6), aff’d, 470 F.2d 289 (8th Cir. 1972).
198. Id. at 1217.
ed should the proposal be implemented. Logically, an agency cannot know what adverse effects are unavoidable until it has investigated the various possible means of reducing environmental harm. The same is true of section 102(2)(C)(v), which requires an agency to prepare a detailed statement on any irreversible and irrevocable commitments of resources which would be involved in the proposed action should it be implemented. An agency cannot know which resources must be committed irrevocably and irrevocably until it has investigated the secondary alternatives. Having determined which impacts and commitments of resources will be unavoidably involved in each alternative, the agency must delineate them in the statement.

Another difference between primary and secondary alternatives is that they must be considered at different stages of the analytical process, as the following example illustrates. Suppose the desired goal of a proposed action is to provide transportation between two cities. One means would be to join them by a highway. Another would be to construct airports in the two cities and establish air service between them. Theoretically, the agency could thoroughly consider secondary alternatives to these primary ones only after the primary alternatives had been recognized, and only after their environmental impacts had been determined. For example, there would be no environmental reason to modify the most economical, technologically feasible route for the proposed highway until the agency recognized that this route would destroy an environmentally important feature and that a slight variation in the route would avoid this environmental damage. Likewise, there would be no environmentally preferable flight pattern at one of the proposed airports until it became known that certain flight patterns would subject nearby residential areas to intolerable noise. If the highway and the airports were closely competitive primary alternatives, the agency would be unable to decide which of them was best until the possible secondary alternatives had been studied. A significant modification in one might clearly establish its superiority over the other. Even if the highway were clearly a superior alternative, the agency's decision concerning whether the highway's cost-benefit ratio was high enough to justify going ahead with the project might depend on how much of its environmental cost could be eliminated through secondary modifications.

In including secondary alternatives in its impact statement, the agency should give them the same kind of treatment as is necessary for primary alternatives. That is, there must be both development of the necessary information and a presentation sufficient for the purposes of the decision-maker, the outside commentator, and the courts. Thus, much of the discussion applicable to primary alternatives is relevant to secondary ones.

E. Valuing Environmental Costs and Benefits

In order to discharge its duties under NEPA, an agency must first identify the goals it wishes to achieve and determine what benefits will be derived from achieving them. It must then determine what the feasible alternative courses of
action are, and how much each alternative will cost, both environmentally and economically. Finally, the agency must ascertain—that is, through use of a rigorous balancing process—that alternative has the highest benefit-cost ratio and whether that ratio is high enough to justify the action.

Throughout this Article the terms “benefit-cost ratio” and “benefit-cost analysis” have been used rather loosely as shorthand references to the type of fine-tuned balancing analysis NEPA requires. The terms are normally used in a purely economic context, but we have used them in a broader context, the NEPA context, which includes environmental costs and benefits. Prior to NEPA, agencies, to the extent they used benefit-cost analyses at all, balanced benefits against traditional economic costs. NEPA injected environmental considerations into the agency decision-making process, and now environmental costs must be taken into account along with the traditional economic costs. Consequently, we have used “cost” to mean any detriment, any weight on the negative side of the scale, whether it be economic or environmental.

NEPA obviously contemplates that some sort of “benefit-cost analysis” will be conducted, but it leaves to the ingenuity of the agencies how this analysis is to be carried out. Subsection 102(2)(B) of the Act states:

The Congress authorizes and directs that, to the fullest extent possible . . . all agencies of the Federal Government shall—

. . .

(B) Identify and develop methods and procedures, in consultation with the Council on Environmental Quality . . . which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations.

Congress was fully aware of the difficulty of the task it was presenting the agencies, but made no effort itself to lighten the load. The courts soon made it clear that, although the agencies would be given a reasonable amount of time to produce a satisfactory method of valuing environmental factors, the “appropriate consideration” of environmental values commanded by section 102 (2)(B) means “appropriate” to the problem of protecting the environment, not “appropriate” to the “whims and habits” of the agencies. The following discussion is not intended to provide a solution to the problem of how the agencies should take

202. Several courts have indicated that the Act requires a cost-benefit analysis. See authorities cited note 48 supra.
203. 42 U.S.C. § 4332(2)(B) (1970); see also Recommendations, supra note 29, at ¶ A(2) (Recommendation No. 1).
206. Calvert Cliffs' Coordinating Comm., Inc. v. AEC, 449 F.2d 1109, 1113 n.8 (D.C. Cir. 1971).
into account environmental costs in their decision-making processes, but it does contain some tentative ideas.

Obviously, before an agency can attach any kind of value to environmental factors, it must quantify the impacts which will result from the proposed action. In the past, the agencies have been prone to make vague, narrative, self-serving, placebo-like statements such as the following:

In the river section the conversion from land to water surface of about 21,500 acres will result in losses of prime wildlife habitat and hunting areas and the loss of approximately 136 miles of tributary streams which provide habitat for several species of small fishes. The effects of these fishery losses will be mitigated by the establishment of lake fisheries consisting primarily of largemouth bass, spotted bass, crappie, bluegill and catfish. Opportunity for managed habitat for waterfowl will be greatly increased as well as waterfowl hunting.207

Before the agency could possibly place a value on the impacts involved here, it would have to know the following: 1) how much prime wildlife habitat and hunting area will be lost; 2) what kind of wildlife inhabits the area, and in what numbers; 3) whether any species will be endangered, regionally or nationally, as a result of the action; 4) how much other similar wildlife habitat and hunting area there is in the region; 5) whether this other wildlife habitat is safe for the foreseeable future; 6) how much use does the affected area currently receive, and for what purpose; 7) how much use is it reasonably capable of supporting; 8) what species of "small fishes" inhabit the streams, and what fisheries value do they have; 9) what is the relative demand for stream fishing as opposed to lake fishing; 10) how many estimated hours of use, and for what purposes would the lake receive, and how many hours of use would it be reasonably capable of supporting; 11) what plans have been made for managed waterfowl habitat, and what costs would be involved. Only if such facts were known could environmental values even begin to be given appropriate consideration.

The difficulty with using the benefit-cost analysis concept when both economic and environmental factors are being analyzed is that there is no immediately apparent common denominator by means of which these two different types of factors can be related and dealt with in the same equation. There are serious limitations to benefit-cost analysis, even in a purely economic situation and, in the NEPA situation, the difficulties are even more pronounced.208 Trying to determine a benefit-cost ratio in the NEPA situation is like trying to divide apples into oranges. Thus, if the concept is to have any value at all, a common denominator must be found by means of which environmental and economic factors can be equated.

The most obvious possibility for a common denominator is monetary value. All economic costs and benefits will usually already be measured in monetary terms. Thus, only the environmental factors will need to be converted. The over-


whelming problem with attempting to attach monetary values to environmental entities is that monetary values are established in the marketplace, theoretically as a result of supply and demand. This country has always taken its environmental resources for granted; they have always been deemed "limitless." Consequently, little if any market value has been placed on them. Some environmental entities do directly correspond to commodities in the marketplace. For example, 1,000 acres of hardwood forest could be readily valued in terms of the value of the hardwood lumber which the forest would produce. This value would not even approximate the environmental value of the 1,000 acre forest, but it would establish a floor for an estimate of that value.

Above this floor value, one might attempt to put a price upon the public enjoyment of a wooded area. Most national parks charge, if anything, a modest service fee; but on the assumption that all parks would charge a fee as if they were commercial enterprises, one might construct a "human-use" value for the wooded area.

Another possible method of valuation might be based on testimony of psychologists—how much wilderness area is needed per capita to provide for a proper realization of human potential? Whatever figure may be assigned to this need, it is obvious that, as wilderness areas decrease, as industrialization and paving-over increase, the value of the natural environment will rise geometrically.

Perhaps the highest dollar-value for environmental amenities would be their replacement cost. A rather extreme though pithy statement by environmental lawyer Victor Yannacone may be illustrative:

Now, you want to build a valley! You measure the valley, you get some earth-moving equipment in, you move umpteen billion cubic yards of dirt at $3.30 a yard. That is the cost of making the valley. . . .

. . .

Well, how do you replace a 1000-year-old forest? Only God can make a tree, but if you wait for God you might never get your forest. So we move a forest from the other side of the mountain where nobody complains. How much does it cost? So many dollars a tree.210

One can imagine the replacement cost of a forest as the cost of moving trees from another forest (where perhaps they are in excess) and replanting them, but the dollar value of replacement cost would be almost infinite when the environmental impact would be the destruction of a species of animal or plant life. It took millions of years for the bald eagle to evolve; killing off the few remaining survivors of that species would require an almost infinite financial benefit for its justification if the replacement cost is used for the ratio, since no amount of money can reconstruct a form of life that is extinct. Similarly, as the number of animals or plants remaining in a species is progressively diminished, the environmental impact of jeopardizing the survival of the fewer and fewer living members of the species should be evaluated in terms of a geometrically increasing price.211

210. Id. at 83.
211. Obviously, replacement cost is not market value, unless society decides that replacement is necessary. The danger is that society may not make the decision until after it is too
Reasonable people will differ sharply as to the dollar value of environmental amenities that have no present, easily measurable economic value. However, it would be preferable for agencies to attempt to place a value on environmental factors rather than ignore them, even if they were certain to undervalue them. At least a dollar sign is a concrete symbol of value, compared to a vague narrative account of environmental impacts. In this attempt, the agencies should keep in mind the principles of sections 101 and 102(2)(C)(iv).212 And most particularly, they should remember that they have a responsibility as trustees of the environment for future generations.

Because it will be so difficult for the agencies to accurately value environmental entities monetarily, and because preservation of these environmental entities is so important, it would seem the best policy to require that a margin of safety be employed in the cost-benefit analysis, at least until our society achieves some sort of knowledgeable consensus about the relative value we place on our environment. Although it is an arbitrarily chosen figure, it would appear appropriate that no agency be allowed to proceed with a proposed action unless the benefit-cost ratio is 2.0 or above. Even though this figure would indicate that the cost-benefit ratio is an obstacle to, rather than a criterion for, action,213 it would appear reasonable in light of the purpose of NEPA, and in light of the circumstances.

Requiring such a high ratio would seem to be justified by the difficulties inherent in the valuation process. Obviously there is a large margin of error, and in light of what is at stake, it would seem best to assure that the error is in favor of the environment. The components of the ratio will often be non-environmental benefits and environmental losses. The benefits will be ones which may or may not be achieved by a different means or at a later date. The losses will be irreversible, unavoidable environmental ones.

Another reason for requiring such a high ratio stems from the fact that whatever minimum figure is set for valuing environmental impacts may become the value generally used. For example, if the minimum value for the destruction of a forest is set at the market value of the lumber, then it is relatively easy to use this value as the only one for the destruction of the forest. The temptation will be especially strong for any agencies which view the statement as an obstacle to be overcome rather than as an integral part of the decision-making process. Therefore, if it is desirable to avoid the effects of having environmental impacts valued at their lowest acceptable amount, requiring a high benefit-cost ratio is justified.

In the section of this Article concerning alternatives, considerable attention was given to the "no-action" alternative, which must be considered whenever an action is proposed. It should be noted here that the benefits and costs of no-action

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212. See notes 11-14 supra.
cannot be judged only in the context of the present. An agency must make an attempt to foresee what will happen if the action is not taken. For example, if the proposal is to build a road through a forest, then an environmental cost of building the road will be the destruction of trees. If the trees would soon be destroyed by some other cause, even if the road were not built, however, the benefit of no-action would not amount to much. If, on the other hand, other trees in the area would soon be very scarce, then the value of the trees which the proposed road would destroy would increase in value, and consequently, the benefit of no-action would increase proportionately.

F. Consultation and Comment

The final step an agency must take in fulfilling its duty of full disclosure might be called the consultation and comment process. This process is outlined, albeit in somewhat cryptic form, in section 102(2)(C):

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 522 of Title 5, [United States Code] and shall accompany the proposal through the existing agency review processes. . . .

One immediately apparent problem with the process as outlined in section 102(2)(C) is that the agency is required to consult with, and obtain the comments of, other agencies prior to preparing the detailed statement required by the Act. One might wonder how the agencies which are consulted are supposed to know enough about the proposed action to make intelligent comments if they cannot study the impact statement. The CEQ solved the dilemma by requiring both a preliminary draft statement and a final impact statement. The draft impact statement is sent to the appropriate agencies for their comments. The final statement is a revised version of the draft statement which incorporates the comments themselves and the agency’s responses to those comments. The draft statement is required to be in final form, as of the date it is circulated, so that if no comments are received it can serve as the final statement. For this reason, agencies should make every effort to discover and discuss all major points of view in the draft statement. In order that the draft statement can be as complete and accurate as possible (which presumably will increase the quality of the comments received), the CEQ recommends informal pre-draft consultation with the appropriate agencies and the public. The CEQ also recommends that the agencies establish “early notification” systems whereby an agency will announce its deci-

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215. Guidelines, supra note 3, at ¶ 10(b).
216. COUNCIL ON ENVIRONMENTAL QUALITY, ENVIRONMENTAL QUALITY—THE THIRD ANNUAL REPORT OF THE COUNCIL ON ENVIRONMENTAL QUALITY 238.
217. Recommendations, supra note 29, at ¶ A(3) (Recommendation No. 3).
218. Id. ¶ B(1).
sion to prepare a statement very shortly after that decision is made, thus allowing agencies, private organizations, and individuals substantially more time to prepare comments.219

Every part of an impact statement should be submitted to the appropriate agencies and the public for comment. If, for example, an impact statement which has been circulated for comment is found to be inadequate by a court, and the agency subsequently files an addendum to the statement, that addendum must be circulated for comment.220

The CEQ Guidelines established certain time limits which are quite important in the formal consultation and comment process. An agency must allow other agencies a minimum of 30 days to comment, and must be very liberal in granting extensions of up to 15 days.221 The agency must allow the Environmental Protection Agency a minimum of 45 days in which to comment.222 "To the maximum extent practicable," no decision concerning the proposed action can be made for at least 90 days after the draft statement is circulated.223 This provision allows sufficient time for the agency to receive, study, and respond to the comments of other agencies and the public. Similarly, the agency can make no decision concerning the proposed action for at least 30 days after circulating its final statement.224 These time periods are to be calculated from the date of receipt of the statement by the CEQ, which is announced in the Federal Register and in the 102 Monitor.226 Where emergency circumstances necessitate action without observation of these time limits, the agency involved is required to consult with the CEQ concerning alternate arrangements.226

In Appendix II to its Guidelines, the CEQ outlined the federal agencies which have jurisdiction by law or special expertise with respect to various types of environmental impacts.227 For example, whenever a proposed action will involve an impact on wildlife, the agency preparing the statement should consult with and seek comments from the Environmental Protection Agency, the Forest Service and the Soil Conservation Service of the Department of Agriculture, the Bureau of Sport Fisheries and Wildlife, the Bureau of Land Management, and the Bureau of Outdoor Recreation of the Department of Interior. When an agency preparing a statement contacts one of the appropriate agencies for comment, it cannot merely send the agency a copy of the statement. It must specifically point out the areas in which it is particularly interested in comments.228

219. Id. ¶ B(1) & (Recommendation No. 5).
221. Guidelines, supra note 3, at ¶ 7 (ii).
222. Id. ¶ 8(b).
223. Id. ¶ 10 (b).
224. Id.
225. Recommendations, supra note 29, at ¶ B(3) (Recommendation No. 7).
226. Guidelines, supra note 3, at ¶ 10(d).
227. Id. at Appendix II.
agency must indicate in the final statement which agencies were contacted, and what the results were.229

It is not clear from the Act itself that the public is to have any active role in the consultation and comment process, although it is clear that the public is to be a recipient of the information in the statement. Executive Order 11,514230 implementing the Act, made it clear that the public was to have a major role in the process. Section 2(b) of the Order reads as follows:

Consonant with Title I of the National Environmental Policy Act of 1969 . . . the heads of Federal agencies shall:

. . .

(b) Develop procedures to ensure the fullest practicable provision of timely public information and understanding of Federal plans and programs with environmental impact in order to obtain the views of interested parties. These procedures shall include, whenever appropriate, provision for public hearings. . . .231

The CEQ incorporated similar language into its Guidelines.232 Additionally, the Guidelines provided that agencies which hold hearings should make their draft statements available to the public at least 15 days prior to the hearings, except when agencies prepare draft statements on the basis of the hearings subject to the Administrative Procedure Act and proceed by adequate public notice and information to identify the issues and obtain comments.233

The courts have made it plain that the public has a major role in the comment process. It has been held that if an agency fails to give adequate and effective notice to the public, it has failed to comply with the Act.234 The CEQ has indicated that the agencies should not rely on announcements in the Federal Register alone to give notice. The CEQ recommended that the agencies adopt practices such as publication in local newspapers and automatic notification of, and possibly automatic distribution of statements to organizations and individuals that the agency knows are likely to be interested in the project.235

Once the agency preparing the statement has received comments from the appropriate agencies and the public, it should, on a limited scale, repeat the process of research and presentation before preparing the final statement. It must set out all comments it has received in its final statement.236 It must also respond to any comments which are reasonable and responsible, with more than cursory attention.237 For this reason material embedded in the comments, with which the agency has not directly dealt in the body of its statement, should not be considered in determining whether the agency has fulfilled its duty of full

231. Id. § 2(b), 3 C.F.R. at 527.
232. Guidelines, supra note 3, at ¶ 10(e).
233. Id.
235. Recommendations, supra note 29, at ¶ B(3) & (Recommendation No. 7).
236. Environmental Defense Fund, Inc. v. Corps of Eng'rs, 325 F. Supp. 749, 758-59 (E.D. Ark. 1971) (Gillham Dam No. 1, Memorandum Opinion No. 5), modified, 470 F.2d 289 (8th Cir. 1972); Recommendations, supra note 29, at ¶ A(3) & (Recommendation No. 3).
disclosure. There should be some evidence that the agency is aware of the material and has assimilated it. A proper response to a reasonable, responsible comment is to conduct the necessary research to provide satisfactory answers to any questions it raises, or to refer to other places in the statement which contain satisfactory answers. The agency should send copies of its final impact statement to all parties—federal, state, and local agencies, private organizations and individuals—that have made substantive comments, in order to inform those parties of the agency's response to their arguments.

II. DUTY OF BALANCED DECISION-MAKING

Even after an agency has prepared, circulated, revised, and re-circulated its impact statement in accordance with the mandates of the duty of full disclosure, it has not fully complied with NEPA. The impact statement must still pass through the agency's review processes. The agency must still discharge its duty of balanced decision-making by making two "correct" decisions on the basis of information in its impact statement. First, it must decide which alternative course of action will maximize the benefit-cost ratio of the proposed project. Second, the agency must determine if the benefits of the action clearly outweigh the costs, both environmental and economic. If they do not, the agency should not proceed with the proposed action. The purpose of the duty of balanced decision-making is to ensure that the policy declarations of section 101 are effectuated.

To the extent that the identifying, quantifying, and valuing of environmental impacts is an imprecise exercise, the decision-making duty necessarily involves the exercise of discretion. The parameters within which that discretion can be legitimately exercised by an agency are determined by the precision of the impact statement. Subsection 102(2)(B) sets as a goal a valuation system so precise that the cost of environmental impacts can be accurately balanced against economic benefits. NEPA does not require the impossible, but after a reasonable period of time, the failure of the agencies to develop such a precise system should become a violation of the Act in and of itself. For the near future, however, reasonable, good-faith estimates of the value of environmental assets which will be damaged or destroyed by a proposed action, based on careful quantifications of the environmental damage and the principles contained in the policy declarations of section 101, will have to suffice. Within this framework, and allowing for the reasonable exercise of discretion, the decisions the agency makes must be correct, and the correctness of its decisions is a matter which a federal court can properly review. The line will be difficult to draw, but if it can be shown


240. Recommendations, supra note 29, at ¶ A(3) (Recommendation No. 3).

that an agency has not made reasonable, good-faith estimates of the value of environmental costs, or has not taken all of the environmental costs into account in reaching its decisions, then those decisions should be ruled arbitrary, capricious, and beyond the bounds of discretion.

The practical issue is not so much whether there is a duty of balanced decision-making, but rather whether there is a judicially-enforceable duty of balanced decision-making. The issue is presented in its most compelling form when an agency decides to undertake a proposed action after preparing an unassailable impact statement clearly showing that the action will be environmentally disastrous and will produce only marginal benefits. In less egregious circumstances several courts have said that, although they would require the preparation of an impact statement meeting the requirements of section 102, they would not inquire into the decisions made on the basis of the impact statement.\footnote{242}

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 cleanly severed from those of section 101, seems clearly fallacious.\footnote{243} Congress was painfully aware that the environmental crisis which existed was at least partially attributable to the fact that many of the federal agencies had never been required to take into account the environmental ramifications of their actions.\footnote{244} The urgency with which the members of Congress regarded the situation is apparent from the Act's legislative history.\footnote{245} Congress felt that it must, while there was still time, restructure the agencies' decision-making processes in such a way that they would be forced to deal with environmental problems on an anticipatory, preventive basis.\footnote{246} The designers of the Act realized that policy declarations alone would not have the desired effect on the agencies, and consequently they drafted the "action-forcing" provisions of section 102 to ensure that the policies of section 101 would be implemented.\footnote{247} They also drafted section 102(1), which states:

\begin{quote}
The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act. . . \footnote{248}
\end{quote}

As was demonstrated above, the "to the fullest extent possible" language was

245. Id. at 4, 6.
not intended to provide a loophole, but rather to compel comprehensive action.\textsuperscript{249} The "policies, regulations, and public laws" at which section 102(1) is directed, of course, include the enabling legislation of the federal agencies and their implementing regulations and policies. The Senate later voted to substitute "detailed statement" for "finding."\textsuperscript{250} The Senate-House Conference Committee accepted this change, but was still not satisfied that the measure went far enough. The Committee applied the "to the fullest extent possible" language to the "action-forcing" provisions of section 102.\textsuperscript{251} The actions of the Conference Committee added the concept of full disclosure to the Act, enabling the public to help assure implementation of the policies of section 101 through private attorney general actions. It would seem that a careful reading of both the Act itself and its legislative history would indicate that Congress was determined not only to lead the horse to water, but to make it drink as well. The courts, of course, should enforce the clearly expressed purpose of the Act.\textsuperscript{252}

The first case to focus attention on the duty of balanced decision-making and its judicial enforceability was \textit{Environmental Defense Fund, Inc. v. Corps of Engineers.}\textsuperscript{263} In that case the Corps of Engineers wanted to build a dam on the Cossatot River in Arkansas. The Corps had prepared an impact statement which plaintiffs contended was inadequate. Judge Eisele agreed, and enjoined the project until the Corps complied with the mandates of section 102.\textsuperscript{264} Plaintiffs also contended that section 101 created substantive rights upon which the construction of the dam would infringe. In explaining his disagreement with that contention, Judge Eisele stated:

Plaintiffs contend that NEPA creates some "substantive" rights in addition to its procedural requirements . . . [E]ssentially they claim that the Act creates rights in the plaintiffs and others to "safe, healthful, productive, and aesthetically and culturally pleasing surroundings;" and to "an environment which supports diversity and variety of individual choice," and "the widest range of beneficial values." See § 101(b). . . .

\ldots . . .

In the instant case it is clear that the damming of the Cossatot will reduce "diversity and variety of individual choice." It is apparently plaintiffs' view that upon the basis of such a finding the Court would have the power, and duty, ultimately and finally to prohibit the construction of the dam across the Cossatot.

No reasonable interpretation of the Act would permit this conclusion.\textsuperscript{265}

It is not completely clear what the court is saying here. It is at least saying that the enforcement of any substantive rights created by section 101 will be affected by the agency's preparation of a satisfactory impact statement and the use of that statement as a basis of its decision. Presumably, courts trying to implement the purpose of NEPA would agree with this statement\textsuperscript{266} because the

\textsuperscript{250} 115 Cong. Rec. 29,058 (1969).
\textsuperscript{252} See Environmental Defense Fund v. TVA, 468 F.2d 1164, 1173-74 (6th Cir. 1972).
\textsuperscript{253} 325 F. Supp. 728 (E.D. Ark. 1971) (Gillham Dam No. 1, Memorandum Opinion No. 5), modified, 470 F.2d 289 (8th Cir. 1972).
\textsuperscript{254} Id. at 753.
\textsuperscript{255} Id. at 755.
\textsuperscript{256} See notes 266-68 supra and accompanying text.
purpose of NEPA is to establish a framework within which both humans and nature can exist harmoniously, and not to protect the natural environment no matter what the cost.\textsuperscript{257}

After reworking its impact statement, the Corps re-submitted it to the court. Judge Eisele found that, although the statement was not as fair and impartial as it would have been had it been prepared by a disinterested third party, it nevertheless met the requirements of full disclosure.\textsuperscript{258} Judge Eisele went on to make a ruling with which there is substantial cause for disagreement. He said:

\begin{quote}
... there is no way that [the decision-maker] can fail to note the facts and understand the very serious arguments advanced by the plaintiffs if he carefully reviews the entire environmental impact statement. Whether that decision-maker is influenced by such facts, opinions and arguments, or whether such facts, opinions and arguments cause that decision maker to call for further studies and investigations, is another matter—not one over which this, or any other court, has any control.\textsuperscript{259}
\end{quote}

Plaintiffs appealed, contending, among other things, that the administrative decision by the Corps to proceed with construction of the dam was reviewable by the court on its merits. The Eighth Circuit Court of Appeals reversed the district court on this point, finding support for its position in a number of court decisions,\textsuperscript{260} and came out strongly in favor of judicial review on the merits.\textsuperscript{261} The court recognized that the procedural requirements of section 102 "are not ends in themselves."\textsuperscript{262} It thought that judicial review of agency decisions would increase the quality of those decisions, and would increase the likelihood that the broad purposes of the Act would be realized.\textsuperscript{263} The court relied principally on the Supreme Court of the United States' opinion in \textit{Citizens to Preserve Overton Park v. Volpe}\textsuperscript{264} for its standard of review, but extended that standard to fit the NEPA context:

\begin{quote}
The reviewing court must first determine whether the agency acted within the scope of its authority, and next whether the decision reached was arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law. In making the latter determination, the court must decide if the agency failed to consider all relevant factors in reaching its decision, or if the decision itself represented a clear error in judgment.

Where NEPA is involved, the reviewing court must first determine if the agency reached its decision after a full, good faith consideration and balancing of environ-
\end{quote}

\begin{flushleft}
\textsuperscript{258} Environmental Defense Fund, Inc. v. Corps of Eng'rs, 342 F. Supp. 1211, 1217 (E.D. Ark.) (Gillham Dam No. 2, Memorandum Opinion No. 6), \textit{aff'd}, 470 F.2d 1211 (8th Cir. 1972).
\textsuperscript{259} \textit{Id.} at 1218.
\textsuperscript{260} For a good summary of the cases on this point see Environmental Defense Fund, Inc. v. Corps of Eng'rs, 470 F.2d 289, 299 & n.15 (8th Cir. 1972).
\textsuperscript{261} The Court may have created some confusion in its disagreement with the lower court as to whether NEPA created substantive rights. However, it is clear from the language and general approach of the opinion that the reviewing court is to consider whether the agency has violated the plaintiffs' rights to have certain procedures followed. \textit{See} 470 F.2d at 298-301.
\textsuperscript{262} \textit{Id.} at 298.
\textsuperscript{263} \textit{Id.} at 299.
\textsuperscript{264} 401 U.S. 402 (1971).
\end{flushleft}
mental factors. The court must then determine, according to the standards set forth in §§ 101(b) and 102(1) of the Act, whether "the actual balance of costs and benefits that was struck was arbitrary or clearly gave insufficient weight to environmental values." Calvert Cliffs' Coordinating Committee v. U.S. Atomic Energy Commission, 449 F.2d at 1115.265

It is to be hoped that the Eighth Circuit Court of Appeals' position will become the majority position, if in fact it is not already. It has already received the enthusiastic endorsement of the Fourth Circuit Court of Appeals.266 Its overruling of the district court on this point267 undermines any contrary decisions relying upon that holding, as is seen in the Fourth Circuit's opinion in Conservation Society of North Carolina v. Froehlke.268

III. CONCLUSION

Though only in operation for a few years, the National Environmental Policy Act of 1969 has already taken on constitutional dimensions in the vast area of the environment. We are seeking the emergence of a "common law" of impact statements as courts step up their review of agency activities which may have an impact upon the quality of the human environment. Any article which attempts to paint a broad picture of legislative intent and judicial decisions in a subject area as large as that of agency duties under NEPA is almost out of date when it appears in print, given the rapid development of the law, yet the possible danger of a premature overview seems justifiable in light of the present situation in the literature—an abundance of specific articles addressed to pieces of a problem at a time when agencies and courts appear to be asking for overall organizational guidance as to their duties and responsibilities under NEPA.

Judicial opinions in the area of this Article are still in their formative stage, and thus the approach taken here is explicitly prescriptive rather than descriptive. It is hoped that the basic division of duties into those of full disclosure and balanced decision-making affords a reasonable and workable interpretation of impact statement requirements under NEPA, and that the organizational breakdown of these duties may have some lasting value even if the particular recommendations herein are soon overtaken by more persuasive considerations.

265. 470 F.2d at 300.
268. 473 F.2d 664, 664-65 (4th Cir. 1973).
APPENDIX A

National Environmental Policy Act of 1969
42 U.S.C. §§ 4321-47 [§§ 101-207]*


SUBCHAPTER I—POLICIES AND GOALS
4331 [101] Congressional declaration of national environmental policy.
4332 [102] Cooperation of agencies; reports; availability of information; recommendations; international and national coordination of efforts.
4333 [103] Conformity of administrative procedures to national environmental policy.
4334 [104] Other statutory obligations of agencies.
4335 [105] Efforts supplemental to existing authorizations.

SUBCHAPTER II—COUNCIL ON ENVIRONMENTAL QUALITY
4341 [201] Reports to Congress; recommendations for legislation.
4342 [202] Establishment; membership; Chairman; appointments.
4343 [203] Employment of personnel, experts and consultants.
4344 [204] Duties and functions.
4345 [205] Consultation with the Citizen’s Advisory Committee on Environmental Quality and other representatives.
4346 [206] Tenure and compensation of members.

The purposes of this chapter are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.
§ 4331 [101] Congressional declaration of national environmental policy.

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

(b) In order to carry out the policy set forth in this chapter, it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may—

(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(2) assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;

(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

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

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

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

(c) The Congress recognizes that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.

§ 4332 [102] Cooperation of agencies; reports; availability of information; recommendations; international and national coordination of efforts.

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

(A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment;

(B) identify and develop methods and procedures, in consultation with the Council on Environmental Quality established by subchapter II of this chapter, which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations;

(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on—

(i) the environmental impact of the proposed action,

(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,

(iii) alternatives to the proposed action,

(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and

(v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of Title 5, and shall accompany the proposal through the existing agency review processes;

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

(E) recognize the worldwide and long-range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment;

(F) make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment;

(G) initiate and utilize ecological information in the planning and development of resource-oriented projects; and

(H) assist the Council on Environmental Quality established by subchapter II of this chapter.

§ 4333 [103] Conformity of administrative procedures to national environmental policy.

All agencies of the Federal Government shall review their present statutory authority, administrative regulations, and current policies and procedures for the purpose of determining whether there are any deficiencies or inconsistencies therein
which prohibit full compliance with the purposes and provisions of this chapter and shall propose to the President not later than July 1, 1971, such measures as may be necessary to bring their authority and policies into conformity with the intent, purposes, and procedures set forth in this chapter.

§ 4334 [104] Other statutory obligations of agencies.

Nothing in section 4332 or 4333 of this title shall 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.

§ 4335 [105] Efforts supplemental to existing authorizations.

The policies and goals set forth in this chapter are supplemental to those set forth in existing authorizations of Federal agencies.

SUBCHAPTER II—COUNCIL ON ENVIRONMENTAL QUALITY

§ 4341 [201] Reports to Congress; recommendations for legislation.

The President shall transmit to the Congress annually beginning July 1, 1970, an Environmental Quality Report (hereinafter referred to as the “report”) which shall set forth (1) the status and condition of the major natural, manmade, or altered environmental classes of the Nation, including, but not limited to, the air, the aquatic, including marine, estuarine, and fresh water, and the terrestrial environment, including, but not limited to, the forest, dryland, wetland, range, urban, suburban, and rural environment; (2) current and foreseeable trends in the quality, management and utilization of such environments and the effects of those trends on the social, economic, and other requirements of the Nation; (3) the adequacy of available natural resources for fulfilling human and economic requirements of the Nation in the light of expected population pressures; (4) a review of the programs and activities (including regulatory activities) of the Federal Government, the State and local governments, and nongovernmental entities or individuals, with particular reference to their effect on the environment and on the conservation, development and utilization of natural resources; and (5) a program forremedying the deficiencies of existing programs and activities, together with recommendations for legislation.

§ 4342 [202] Establishment; membership; Chairman; appointments.

There is created in the Executive Office of the President a Council on Environmental Quality (hereinafter referred to as the “Council”). The Council shall be composed of three members who shall be appointed by the President to serve at his pleasure, by and with the advice and consent of the Senate. The President shall designate one of the members of the Council to serve as Chairman. Each member shall be a person who, as a result of his training, experience, and attainments, is exceptionally well qualified to analyze and interpret environmental trends and information of all kinds; to appraise programs and activities of the Federal Government in the light of the policy set forth in subchapter I of this chapter; to be conscious of and responsive to the scientific, economic, social, esthetic, and cultural needs and interests of the Nation; and to formulate and recommend national policies to promote the improvement of the quality of the environment.

§ 4343 [203] Employment of personnel, experts and consultants.

The Council may employ such officers and employees as may be necessary to carry out its functions under this chapter. In addition, the Council may employ and fix the compensation of such experts and consultants as may be necessary for the carrying out of its functions under this chapter, in accordance with section 3109 of Title 5 (but without regard to the last sentence thereof).

§ 4344 [204] Duties and functions.

It shall be the duty and function of the Council—

(1) to assist and advise the President in the preparation of the Environmental Quality Report required by section 4341 of this title;

(2) to gather timely and authoritative information concerning the conditions and trends in the quality of the environment both current and prospective, to analyze and interpret such information for the purpose of determining whether such conditions and trends are interfering, or are likely to interfere, with the achievement of the policy set forth in subchapter I of this chapter, and to compile and submit to the President studies relating to such conditions and trends;

(3) to review and appraise the various programs and activities of the Federal Government in the light of the policy set forth in subchapter I of this chapter.
for the purpose of determining the extent to which such programs and activities are contributing to the achievement of such policy, and to make recommendations to the President with respect thereto;

(4) to develop and recommend to the President national policies to foster and promote the improvement of environmental quality to meet the conservation, social, economic, health, and other requirements and goals of the Nation;

(5) to conduct investigations, studies, surveys, research, and analyses relating to ecological systems and environmental quality;

(6) to document and define changes in the natural environment, including the plant and animal systems, and to accumulate necessary data and other information for a continuing analysis of these changes or trends and an interpretation of their underlying causes;

(7) to report at least once each year to the President on the state and condition of the environment; and

(8) to make and furnish such studies, reports thereon, and recommendations with respect to matters of policy and legislation as the President may request.

§ 4345 [205] Consultation with the Citizen's Advisory Committee on Environmental Quality and other representatives.

In exercising its powers, functions, and duties under this chapter, the Council shall—

(1) consult with the Citizens' Advisory Committee on Environmental Quality established by Executive Order numbered 11472, dated May 29, 1969, and with such representatives of science, industry, agriculture, labor, conservation organizations, State and local governments and other groups, as it deems advisable; and

(2) utilize, to the fullest extent possible, the services, facilities, and information (including statistical information) of public and private agencies and organizations, and individuals, in order that duplication of effort and expense may be avoided, thus assuring that the Council's activities will not unnecessarily overlap or conflict with similar activities authorized by law and performed by established agencies.

§ 4346 [206] Tenure and compensation of members.

Members of the Council shall serve full time and the Chairman of the Council shall be compensated at the rate provided for Level II of the Executive Schedule Pay Rates. The other members of the Council shall be compensated at the rate provided for Level IV or the Executive Schedule Pay Rates.


There are authorized to appropriated [sic] to carry out the provisions of this chapter not to exceed $300,000 for fiscal year 1970, $700,000 for fiscal year 1971, and $1,000,000 for each fiscal year thereafter.