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NEPA: The Lion King in the Jungle of Environmental Statutes?

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## PART I INTRODUCTION

"We're all connected in the great circle of life," King Mufasa profoundly stated; the King of the Jungle was educating and preparing Simba, his cub, to some day take his position as the wise leader and protector of the pride at Pride Rock in this summer's hottest movie.<sup>1</sup> This politically correct Disney movie included a pro-environmental theme by starting with the imagery of a lush tropical jungle environment filled with a variety of vegetation and animal species that thrived while the intelligent and reasonable Mufasa was rightfully at the throne. It then contrasted this with the totally destroyed, dark, dreary, scorched earth environment that resulted from the unrestrained consumption of the natural resources by an army of hyenas. This occurred when Scar, Mufasa's evil and cowardly brother, with the help of the hyenas, killed King Mufasa and frightened off young Simba, his heir apparent. The lions were nearing extinction when Simba, now a mature lion with physical and moral strength, returned to assert his rightful position as King of (at least that part of) the jungle. In Hollywood speed, the environmental degradation reversed and images of life and beauty returned. The creators of the movie did not have to use popular environmental jargon like biodiversity, ecosystem management or sustainable development to bring home the point to both the children and the adults in the audience of how important a clean, healthy, species diverse

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<sup>1</sup>Walt Disney's *The Lion King*.

environment and the rational, balanced use of its natural resources are to our continued existence on this planet.

Although it is not exactly known when this concept of our biological/ecological interdependence was first realized, it is known that the National Environmental Policy Act (NEPA),<sup>2</sup> which was passed in 1969, was the first federal law to set forth a process for taking the environment into consideration in governmental decisionmaking,<sup>3</sup> thus reflecting an understanding

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<sup>2</sup>National Environmental Policy Act of 1969 (NEPA), Pub.L. No. 90-190, 83 Stat. 852 (1970)(codified at 42 U.S.C. §§ 4321-47).

<sup>3</sup>NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C), known as one of the "action-forcing" sections of NEPA, requires each federal action to "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."

Consultation with other federal agencies is also required in preparing the statement, and comments from state, local, and federal agencies must accompany the proposal through the review process. This process is further detailed in CEQ and individual agency regulations.

of this interconnectedness.<sup>4</sup> Although NEPA has been construed by the Supreme Court to be essentially a procedural statute,<sup>5</sup> most would agree with those attending NEPA's 20th Anniversary Symposium that NEPA not only has

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<sup>4</sup>See also, 42 U.S.C. § 4321, NEPA § 2 states the purposes of the act which 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;

42 U.S.C. § 4331, NEPA § 101 is the Congressional declaration of national environmental policy.

The Congress recognizing the profound impact of man's activity on the interrelations of all components of the natural environment . . . 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 . . . 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.

<sup>5</sup>Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 558 (1978); Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227 (1980); Robertson v. Methow Valley Citizens' Council, 490 U.S. 332 (1989).

substantive goals but has also had a positive, substantive effect on the environment.<sup>6</sup>

While this federal statute took the lead in environmental protection and conservation in 1969 by requiring a process which is now known worldwide as environmental impact assessment (EIA),<sup>7</sup> the NEPA process, as originally enacted by Congress and as subsequently interpreted by the U.S. Supreme Court, has since been improved upon by law and regulation in other countries and by some states within the U.S.<sup>8</sup> Yet NEPA has never been amended to incorporate these improvements. However, new life is being breathed into the U.S. federal NEPA process from many fronts. This paper will discuss some of the improvements that have been made, are being made, and can and should be made to extend the life of this visionary statute and to increase its positive, protective, conservation-oriented impact on the environment (coming full circle back to the original intent of NEPA, discussed *infra*). Part II will discuss the

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<sup>6</sup>*NEPA At Twenty: The Past, Present and Future of the National Environmental Policy Act*, 20 ENVTL. L. 447 (1990)[hereinafter cited as *NEPA At Twenty*]. See also W. Rodgers, Handbook on Environmental Law at 749 n.69 (West 1977).

<sup>7</sup>Nicholas A. Robinson, *The 1991 Bellagio Conference on U.S.-U.S.S.R. Environmental Protection Institution: International Trends in Environmental Impact Assessment*, 19 B.C. ENVTL. AFF. L. REV. 591 (1991).

<sup>8</sup>Robinson, *supra* note 7; Philip Michael Ferester, *Revitalizing The National Environmental Policy Act: Substantive Law Adaptations From NEPA's Progeny*, 16 HARV. ENVTL. L. R. 207 (1992).

legislative history revealing the Congressional intent and original purpose of NEPA, and how it has evolved in the U.S. The spread of the EIA process globally and the improvements that have been made to this process in the international context will be the focus of Part III.

Part IV will look at the pressures being brought to bear domestically that could predictably bring about a strengthened national environmental policy. These include stronger state little NEPAs, CEQ activities, and some initiatives brought to the forefront by the Clinton Administration that will require a reexamination of NEPA. Finally, Part V will look at what one component of the Department of Defense (DOD) -- the Air Force is doing with regard to environmental planning.<sup>9</sup> The Air Force provides a good example of how agencies have internalized NEPA's procedural requirements and are now attempting to move beyond this and are making changes to ensure that the process has an impact on the ultimate decision. This Part will examine the more strategic and integrated approach the Air Force is taking with regard to NEPA analysis and will reveal some of the key changes being made to its implementing regulation. The author concludes that the time is ripe for the

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<sup>9</sup>Recognizing that many agencies are making improvements in the area of environmental planning, this author has chosen to discuss the Air Force's efforts because of her experience as an Air Force attorney and because the Air Force was the recipient of the Council on Environmental Quality's (CEQ) Federal Environmental Quality Award for its implementation of NEPA in January 1993.



United States to take the lead again. Our "young" administration must recognize that NEPA is a proven study structure, its procedures have been internalized by federal agencies, and its becoming more and more the tool used for the synthesized planning required for environmental protection. But only if the wick is turned up and NEPA is strengthened substantively can it become the tool for ensuring not only informed but wise decisions are made with respect to our environment.<sup>10</sup>

## **PART II. THE STATUS OF U.S. FEDERAL NEPA**

The need for a National Environmental Policy Act EIA-type process was foreseen (at least by those with vision) many years before 1969, the year Congress conceived EIA. President Theodore Roosevelt in his 1908 White House Conference on Conservation stated:

We have become great in a material sense because of the lavish use of our resources, and we have just reason to be proud of our growth. But the time has come to inquire seriously what will happen when our forests are gone . . . when the soils shall have been further impoverished and washed into streams . . . These questions do not relate only to the next century or to the next generation. One distinguishing characteristic of really civilized

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<sup>10</sup>See *Robertson v. Methow Valley Citizens' Council*, 490 U.S. 332, 109 S.Ct. 1835, 1846 (1989), "NEPA merely prohibits uninformed -- rather than unwise -- agency action."

men is foresight . . . and if we do not exercise that foresight, dark will be the future.<sup>11</sup>

But it was not until 1969, with the passage of NEPA, that our country received the edict to consider the environmental impact of a proposed action "in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment."<sup>12</sup> To determine the impact of this statute one must consider its evolution both domestically and internationally. Lynton K. Caldwell, one of NEPA's principal drafters, describing NEPA's effectiveness domestically, said:

What a statute actually accomplishes may be different from its authors' expectations -- it may fall short of their purpose and yet achieve substantial success in other respects . . . This innovative statute in many ways may be accounted a success, and yet its principal accomplishments have not been those most sought after during the course of its initial formulation.<sup>13</sup>

There is strong evidence in NEPA's legislative history that NEPA's purpose and policy statements in Section 101 were intended by the drafters to be substantive

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<sup>11</sup>President Theodore R. Roosevelt, Opening Address at the 1908 White House Conference on Conservation, in PROCEEDINGS OF A CONFERENCE OF GOVERNORS IN THE WHITE HOUSE, Washington, D.C., May 13-15, 1908, 3-12 (1909).

<sup>12</sup>NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C). *See supra*, note 3.

<sup>13</sup>Caldwell, *NEPA At Twenty: A Retrospective Critique*, 5 NAT. RES. & ENVMT. 6 (1990).

provisions.<sup>14</sup> Perhaps the most noble statement of the drafters' intent came from its Senate author, Senator Henry Jackson:<sup>15</sup>

A statement of environmental policy is more than a statement of what we believe as a people and as a Nation. It establishes priorities and gives expression to our national goals and aspirations. It provides a statutory foundation to which administrators may refer . . . for guidance in making decisions which find environmental values in conflict with other values. What is involved is a Congressional declaration that we do not intend, as a government or as a people, to initiate actions which endanger the continued existence or the health of mankind: That we will not intentionally initiate actions which will do irreparable damage to the air, land, and water which support life on earth. . . . The basic principle of the policy is that we must strive in all that we do, to achieve a standard of excellence in man's relationship to his physical surroundings. If there are to be departures from this standard of excellence, they should be exceptions to the rule and the policy. And as exceptions they will have to be justified in light of the public scrutiny required by section 102.<sup>16</sup>

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<sup>14</sup>Ferester, *supra*, note 8 at 223 nn. 90-91.

<sup>15</sup>Yost, *NEPA's Promise - Partially Fulfilled*, 20 ENVTL. L. 533, 534 (Fall, 1990).

<sup>16</sup>115 CONG. REC. 40,416 (1969); *see also Id.* at 39, 703 (To remedy present shortcomings and "to establish action-forcing procedures which will help ensure that the policies enunciated in section 101 are implemented, section 102 authorizes and directs that the existing body of Federal law, regulation, and policy be interpreted and administered to the fullest extent possible in accordance with the policies set forth in this act"); S. Rep. No. 296, 91st Cong., 1st Sess., "The purpose [of the new Act] is to establish, by Congressional action, a national policy to guide Federal activities which are involved with or related to the management of the environment or which have an impact on the quality of the environment." *Id.* at 8. "[I]f the goals and principles are to be effective, they must be capable of being applied in action." *Id.* at 9. "The Nation has in many areas overdrawn its bank account in life-sustaining natural  
(continued...)

Indeed, early in the life of the statute, the D.C. Circuit court found that the declaration of national environmental policies in Section 101 imposed explicit substantive duties on agencies and that environmental issues ought to receive consideration comparable with other statutory mandates.<sup>17</sup> But during the first ten years of NEPA's existence the lower courts were somewhat inconsistent on the issue of whether they should be reviewing the substantive

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<sup>16</sup>(...continued)

elements." *Id.* at 16. See also Caldwell, *The National Environmental Policy Act: Retrospect and Prospect*, 6 ENVTL. L. RPTR.(ENVTL. L. INST.) 50,030, 50,033 (1976) ("The impact statement was required to force the agencies to take the substantive provisions of NEPA seriously and to consider the environmental policy directives of the Congress in the formulation of agency plans and procedures.").

<sup>17</sup>*Id.* at 214, quoting Judge Skelly Wright in *Calvert Cliffs' Coordinating Comm. v. United States Atomic Energy Comm'n*, 449 F.2d 1109 (D.C. Cir. 1971), who wrote:

In some instances environmental costs may outweigh economic and technical benefits and in other instances they may not.

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... [R]eviewing courts probably cannot reverse a substantive decision on the merits, under section 101, unless it be shown that the actual balance of costs and benefits that was struck was arbitrary or clearly gave insufficient weight to environmental values. But if the decision was reached procedurally without individualized consideration and balancing of environmental factors--conducted fully and in good faith--it is the responsibility of the courts to reverse.

decisions of administrative agencies.<sup>18</sup> In 1976 the Supreme Court began chipping away at substantive review of NEPA decisions.<sup>19</sup> This question was

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<sup>18</sup>The Eighth, Seventh and Second Circuits also supported some form of substantive review. See *EDF v. Corps of Engineers*, 470 F.2d 289 (8th Cir. 1972), *cert. denied*, 412 U.S. 931 (1973); *Sierra Club v. Froehlke*, 486 F.2d 946 (7th Cir. 1973); *Scenic Hudson Preservation Conference v. Federal Power Comm'n*, 453 F.2d 463 (2d Cir. 1971), *cert. denied*, 407 U.S. 926 (1972). Following *Calvert Cliffs'*, the District of Columbia further endorsed limited substantive review in *Natural Resources Defense Council, Inc. v. Morton*, 458 F.2d 827 (D.C. Cir. 1972). On the other hand, the Tenth Circuit rejected the proposition that courts should look to the substantive merits of an agency's decision. See *National Helium Corp. v. Morton*, 455 F.2d 650 (10th Cir. 1971).

<sup>19</sup>In *Kleppe v. Sierra Club*, 427 U.S. 390 (1976), the holding was confined to whether NEPA required the Dept. of Interior to prepare regional EISs in addition to national and local EISs. *Id.* at 398. But in a footnote unrelated to the holding, Justice Powell wrote:

Neither the statute nor its legislative history contemplates that a court should substitute its judgment for that of the agency as to the environmental consequences of its actions. . . . [A court] cannot "interject itself within the area of discretion of the executive as to the choice of the action to be taken."

*Id.* at 410 n.21 (quoting *Natural Resources Defense Council v. Morton*, 458 F.2d 827, 838 (1972)). Also in *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519 (1978), a case involving a NEPA challenge to nuclear reactor licensing decisions of Atomic Energy Commission, the Court observed that

NEPA does set forth significant substantive goals for the Nation, but its mandate to the agencies is *essentially procedural*. It is to ensure a fully informed and well-considered decision, not necessarily a decision the judges of the Court of Appeals or of this Court would have reached had they been members of the decisionmaking unit of the agency. Administrative decisions should be set aside in this context . . . *only for substantial*

(continued...)

resolved by the U.S. Supreme Court by the end of the statute's first decade in Strycker's Bay Neighborhood Council, Inc. v. Karlen.<sup>20</sup> In this *per curiam* opinion, the Court finally dispensed with judicial review of NEPA's substantive mandate writing:

[O]nce an agency has made a decision subject to NEPA's procedural requirements, *the only role for a court is to insure that the agency has considered the environmental consequences; it cannot "interject itself within the area of discretion of the executive as to the choice of the action to be taken."*<sup>21</sup>

Finally in 1989 in Methow Valley, the Supreme Court completely read the substance out of the statute when Justice Stevens declared:

Although these [EIS] procedures are almost certain to affect the agency's substantive decision, *it is now well settled that NEPA itself does not mandate particular results, but simply prescribes the necessary process . . . .* Other statutes may impose substantive environmental obligations on federal agencies, but NEPA merely prohibits uninformed --rather than unwise--agency action.<sup>22</sup>

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<sup>19</sup>(...continued)

*procedural or substantive reasons as mandated by statute, not simply because the court is unhappy with the result reached.*

*Id.* at 558 (emphasis added)(citations omitted).

<sup>20</sup>Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223 (1980).

<sup>21</sup>*Id.* at 227-28 (emphasis added)(quoting Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976)(quoting Natural Resources Defense Council v. Morton, 458 F.2d 827, 838 (1972))).

<sup>22</sup>Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350-51 (1989) (emphasis added).

There have been varying explanations for the Court's seemingly hostile treatment of NEPA,<sup>23</sup> but these are beyond the scope of this paper. This treatment by the U.S. Supreme Court has led some to conclude NEPA has been reduced to a paperwork exercise in how to adequately complete its procedural mandates (discussed *infra*).

NEPA's domestic evolution was thoroughly explored in October 1989 at a Symposium on NEPA's 20th Anniversary;<sup>24</sup> after recognizing several truisms about where NEPA stood in 1989 in the U.S., the NEPA scholars participating in the symposium came up with several recommendations to improve NEPA's effectiveness in its third decade<sup>25</sup> and at least one of them predicted NEPA would be strengthened and become even more important in the future.<sup>26</sup> Before getting to the evidence that shows that prediction is coming true, it is worth

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<sup>23</sup>See Shilton, *Is the Supreme Court Hostile to NEPA? Some Possible Explanations for A 12 - 0 Record*, 20 ENVTL. L. 551 (1990); Rodgers, *NEPA At Twenty: Mimicry and Recruitment in Environmental Law*, 20 ENVTL. L. 485 (1990); Yost & Rubin, *Analysis of the National Environmental Policy Act*, in ENVIRONMENTAL LAW INSTITUTE, NEPA DESKBOOK (1989).

<sup>24</sup>*NEPA At Twenty*, *supra* note 6.

<sup>25</sup>Blumm, *The National Environmental Policy Act At Twenty: A Preface*, 20 ENVTL. L. 447, 475-79 (1990).

<sup>26</sup>Rodgers, *supra* note 23 at 503-04 ("a slow march by NEPA toward substantive consequence").

noting the status of NEPA in 1989 from the viewpoint of these scholars and the suggestions they made about its future.

So where was NEPA in 1989 -- twenty years after it was signed into law? Professor Michael Blumm made five observations in his preface to the symposium:

First, discouraged from close judicial scrutiny by the Supreme Court, lower courts increasingly decline to uncover agencies' NEPA violations, and sometimes decline even to issue judicial injunctions to remedy NEPA violations.

Second, agencies win more NEPA suits. Many agencies have institutionalized NEPA--causing them to eliminate numerous environmentally objectionable projects and modify many others. Nevertheless, agencies know that they can take NEPA's goals rather lightly if they produce enough paperwork to satisfy NEPA procedures.

Third, the public gets Supreme Court-ensured "informed decision making" that neither has to (1) incorporate all feasible mitigating measures, nor (2) select environmentally superior alternatives, nor (3) consider the costs of erroneous agency optimism.

Fourth, NEPA plaintiffs, faced with high transaction costs and dwindling prospects of judicial success, file fewer NEPA suits. Fewer court challenges encourage agencies to take NEPA lightly.

Fifth, an apparent political consensus holds that amending NEPA to ensure that its goals are not obscured by its procedures would be politically unwise. As a result, Congress has acquiesced in the statute's substantive demise.<sup>27</sup>

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<sup>27</sup>Blumm, *supra* note 25 at 451-53 (citations omitted).



Realizing that the open, pluralistic decision making demanded by NEPA has influenced many agency projects and policies,<sup>28</sup> but that good process is not all that we should expect from an environmental trustee charged with producing productive harmony between man and nature, preserving the biosphere for future generations, and combatting the global nature of environmental problems,<sup>29</sup> the symposium attendees made several suggestions for reform.<sup>30</sup>

The changes recommended focused on three areas -- lead agency reforms, revising the CEQ regulations and amending NEPA itself.<sup>31</sup> There was a call for lead agencies to write shorter, more concise, more analytic EISs, in plain English, and to pay greater attention to their biological conclusions and predictions.<sup>32</sup> Some felt agencies must commit to monitoring predictions and

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<sup>28</sup>*See, e.g.*, S. Taylor, Making Bureaucracies Think: The Environmental Impact Statement Strategy of Administrative Reform (1984)(study of the Forest Service and the Army Corps of Engineers)(describing the "strong incentives" a lead agency has to reach accommodation with comment agencies) at 269-71; D. Mazmanian & J. Nienaber, Can Organizations Change? Environmental Protection, Citizen Participation, and the Corps of Engineers (1979)(study of Army Corps of Engineers)(case study of "fishbowl planning" pursued by the Seattle District of the Corps of Engineers) at 132-57.

<sup>29</sup>Blumm, *supra* note 25 at 453-54.

<sup>30</sup>Blumm, *supra* note 25.

<sup>31</sup>*Id.*

<sup>32</sup>*Id.* at 475.

publicizing the results.<sup>33</sup> Most of the suggested changes came in the form of revising the CEQ regulations to make EISs more effective decision making documents.<sup>34</sup> Some of the recommendations in this area included the following: the use of a "briefing style" EIS (like an option memorandum for decision making); greater attention be given to post-decision monitoring (perhaps requiring publicly available compliance reports that would help ensure the accuracy of agency predictions as well as provide incentives for agencies to keep their NEPA promises); clarification of the role of mitigation measures in relieving agencies from writing EISs;<sup>35</sup> and much more guidance in the scope, content and public involvement areas in the Environmental Assessment (EA) process.<sup>36</sup> As for the suggestions to amend NEPA,<sup>37</sup> they centered around making it more substantive (e.g. directing agencies to implement

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<sup>33</sup>*Id. Cf.* 40 C.F.R. § 1505.3 (encouraging but not requiring monitoring). The Air Force is moving in this direction, *see* discussion in Part V, *infra*.

<sup>34</sup>*Id.*

<sup>35</sup>Subsequent case law has assisted in this area. *See* Roanoke River Basin Ass'n v. Hudson, 940 F.2d 58, 62 (4th Cir. 1991); Don't Ruin Our Park v. Stone, 802 F. Supp. 1239 (MD Pa. 1992).

<sup>36</sup>Blumm, *supra* note 25 at 475-77.

<sup>37</sup>*Id.* at 477-78.

environmentally preferable alternatives absent substantial countervailing reasons).<sup>38</sup>

Despite the symposium's accurate but somewhat unfortunate descriptions of NEPA's unfulfilled goals and despite the fact that there have been no changes to the CEQ regulations or amendments to NEPA since this symposium made its recommendations to reform NEPA, all is not so glum. There have been movements in several areas that portend Professor Rodger's prediction, of a NEPA that will someday forbid unwise as well as uninformed decisions, is becoming a reality. These promising activities will be discussed in the sections that follow.

### **PART III. THE GLOBAL SPREAD OF AND IMPROVEMENTS MADE TO ENVIRONMENTAL IMPACT ASSESSMENT (EIA)**

One of the biggest indicators of NEPA's growing significance is the spread of its EIA-type study structure globally. NEPA has been the springboard for the spread of EIA around the world.<sup>39</sup> More than seventy-five jurisdictions now require EIA by law.<sup>40</sup>

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<sup>38</sup>*Id.*

<sup>39</sup>Robinson, *supra* note 7, at 591.

<sup>40</sup>*Id.*

Peter Sand cites EIA as an example of "model diffusion" when discussing innovations in implementation and alternatives to supranational regulation in his article, *International Cooperation: The Environmental Experience*.<sup>41</sup> This transnational diffusion of the EIA process provides an excellent opportunity to see how the process has been tailored to the needs of many different countries and international organizations (e.g. the World Bank,<sup>42</sup> the International Olympic Committee and the European Community (EC)) and also how it has been revised and improved during the last twenty-five years.<sup>43</sup> Professor Nicholas Robinson, in his article on worldwide EIA trends,<sup>44</sup> said: "Thoughtful adaptation rather than rote imitation of NEPA's environmental impact statement

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<sup>41</sup>Sand, *International Cooperation: The Environmental Experience, in Preserving the Global Environment* (Mathews ed. 1991).

<sup>42</sup>The World Bank has adopted its initial rules on environmental assessment, modeled on NEPA and knowledge gleaned from EIA in Australia, Canada and elsewhere. Robinson, *supra* note 7, at 593; Kass & Gerrard, *International Impact Assessment*, N.Y.L.J., Oct. 25, 1991, at 29.

<sup>43</sup>Robinson, *supra* note 7.

<sup>44</sup>In examining EIA practices around the world, the author discusses seven discernable trends. They are: 1) EIA works in all political systems; 2) while EIA is a young, even pioneering, analytic tool for decision makers, its use is spreading fairly rapidly; 3) EIA is effective in providing local people with an opportunity to be heard and to participate in decision making that affects their environment; 4) EIA is demonstrably effective in marshaling environmental data for decision makers; 5) despite EIA's evident value, its usefulness is not easy to establish at the outset; 6) there is a tendency to use EIA only for large projects and to list the types of projects that require EIA; 7) EIA is not uniformly successful. *Id.* at 593-96.

(EIS) concept has characterized the statute's transfer abroad."<sup>45</sup> He points out that "just as all of Canada's provinces and twenty-five states in the United States have enacted EIA procedures, some of which include innovations improving upon NEPA's techniques, so also other countries have found ways to make EIA more effective when they have adopted EIA laws."<sup>46</sup> As more and more jurisdictions continue to adopt, modify and refine their EIA procedures, there is a continuous sharing of methodologies.<sup>47</sup>

A couple of examples of improvements that have been made are establishing an independent authority to oversee the sufficiency of the EIA process<sup>48</sup> and the development of the "scoping" step to provide better substantive focus for each EIA.<sup>49</sup> Professor Robinson concluded his summary of trends in the establishment of EIA around the world by pointing out that "there is a constant need to evaluate the effectiveness of each jurisdiction's EIA process: to

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<sup>45</sup>*Id.* at 593.

<sup>46</sup>*Id.*

<sup>47</sup>*Id.*

<sup>48</sup>In Canada, authorities independent of the decision maker have the tasks of delineating the scope of the EIA and preparing it. The Dutch have adapted the concept of an independent commission to judge the sufficiency of EIAs based on the Canadian example. *Id.* at 594.

<sup>49</sup>Massachusetts developed the "scoping" step and the Council on Environmental Quality (CEQ) in turn adopted the scoping process when it revised the NEPA regulations. *Id.*

improve it, streamline it, and weed out its flaws."<sup>50</sup> Canada has continuously reviewed and refined its EIA procedures since 1973<sup>51</sup> and as a result, has become a world leader in this area, and its EIA process is a role model for other countries.<sup>52</sup>

The EC not only provides another example of continuous review and improvement of EIA procedures<sup>53</sup> but also began EIA in the international (transboundary) context in 1985 when the Council of Ministers approved Directive 85/337/EEC (hereafter called the EIA Directive).<sup>54</sup> While the structure

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<sup>50</sup>*Id.* at 596.

<sup>51</sup>*Id.* at 598.

<sup>52</sup>Canada was the lead country in a study of post-project analysis (PPA) in environmental impact assessment, completed by a task force in conjunction with the Senior Advisors to Economic Commission for Europe (ECE) Governments on Environmental and Water Problems. The report of the task force was published in a United Nations publication, Environmental Series 3 (1990)[hereinafter cited as PPA Report](discussed *infra* p. 27). CEQ is also presently working with the Canadians on an EIA effectiveness study (discussed *infra* p. 49).

<sup>53</sup>The EC has completed at least two reviews of the effectiveness of EIA implementation since they began EIA in 1985. Coenen & Jörissen, *Environmental Impact Assessment in the Member Countries of the European Community - Implementing the EC Directive: An Overview*, is a 1988 report based on a study which was carried out by the Department for Applied Systems Analysis of the Nuclear Research Center Karlsruhe on behalf of the Federal Environmental Agency. The second such study was completed in 1993 (discussed *infra* p. 21).

<sup>54</sup>Council Directive of 27 June 1985 on the Assessment of the Effects of  
(continued...)

of this Directive is beyond the scope of this paper, it was designed to ensure that EIA is undertaken on certain projects, that this assessment is taken into account before these projects are approved and implemented, and that states routinely examine the environmental impacts of their actions in other states.<sup>55</sup> It is a short legal instrument with 14 Articles and 3 Annexes and has wide ramifications for implementation of the EC's environmental policy and for the pursuit of sustainable development.<sup>56</sup>

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<sup>54</sup>(...continued)

Certain Public and Private Projects on the Environment, OJ No. L175, 5.7.1985. The EC's uniqueness as a supranational/regional international governmental body makes it an interesting case study of the effectiveness of international EIA (although probably not completely extrapolatable to the larger international community).

EC environmental law represents the first attempt of any region in the international community to legislate widely on transboundary environmental issues. In seizing jurisdiction over the internal affairs of member states by regulating environmental matters which do not raise *prima facie* transboundary issues, Community environmental law goes even further. It effectively says that the member states share a single, indivisible environment.

Sands, *Symposium: International Law: Article: European Community Environmental Law: The Evolution of a Regional Regime of International Environmental Protection*, 100 YALE L.J. 2511 (1991).

<sup>55</sup>EIA Directive, *supra* note 54. Canada's courts also require that impacts abroad be evaluated. Robinson, *supra* note 7 at 595, 596 & n.1.

<sup>56</sup>EIA Directive, *supra* note 54.

More importantly, for the purposes of this paper, is that the Commission of the EC completed an excellent study and report on the implementation of the Directive in April 1993.<sup>57</sup> This report reviews formal compliance and practical application of the Directive's requirements in each Member State and concludes with an overall evaluation of its implementation.<sup>58</sup> It not only reveals the difficulties the EC has experienced in implementing the Directive, but can and should be used as a guide to improving EIA for future international EIA efforts.

The report concludes with an overall evaluation and "lessons learned":

Although many Member States are in the early stages of implementation, their experiences demonstrate that the planning, design and authorization of projects are beginning to be influenced by the EIA process and that environmental benefits are resulting. However, they also show that the full potential of this is not yet being realised for, *inter alia*, the following reasons:

- the process is, in many cases, not starting early enough;
- adequate quality control of the EIS and of the EIA process as a whole is not always present;
- mitigating measures of a wider nature are infrequently and inadequately integrated into the planning and design of projects;

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<sup>57</sup>Report from the Commission of the Implementation of Directive 85/337/EEC on the Assessment of the Effects of Certain Public and Private Projects on the Environment, Com(93) 28 Final - Vol. 12, 2 April 1993 [hereinafter cited as Report from the Commission].

<sup>58</sup>*Id.*



- EIA availability and consultative practice in certain cases is weak;
- the contribution of the EIA process to the eventual decision making and the role of monitoring project implementation are not as clear or as effective as they could be.<sup>59</sup>

Despite these weaknesses, the report found that the Directive has had beneficial effects in protecting the environment by, *inter alia*: providing authorities with environmental information to be used in the assessment of individual project proposals; identifying, in advance of project realization, mitigating measures for the impact of the project on the environment and modifications to the proposed project; and involving environmental authorities in the process of project analysis leading to a greater awareness of impacts of projects on the Community environment.<sup>60</sup> It is these benefits, no doubt, that allowed the Directive to influence the *ad hoc* Working Party of legal and technical experts under the auspices of the Economic Commission for Europe in their preparations of the United Nations Convention on Environmental Impact Assessment in a Transboundary Context at Espoo, Finland (so called the Espoo Convention).<sup>61</sup>

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<sup>59</sup>*Id.* at 63. Many of the same complaints can be and are made about NEPA's procedures.

<sup>60</sup>*Id.*

<sup>61</sup>Signed at Espoo, Finland, Feb. 25, 1991, U.N. Doc. E/ECE/1250, reprinted in 30 I.L.M. 800 [hereinafter cited as Espoo Convention]. By June 1991, twenty-eight countries had signed the Convention (including the U.S.). The EC  
(continued...)

This emerging pattern of state practice has led some to argue that, "it is becoming a norm of customary international law that nations should engage in effective EIA before taking action that could adversely affect either shared natural resources, another country's environment, or the Earth's commons."<sup>62</sup>

What is clear is that EIA is an excellent example of a practice developed by a nation state (the United States) the use of which has spread among nations for activities which affect the environment within their individual borders. Furthermore, EIA has been extrapolated for use in the international environmental arena and is being implemented by international organizations, integrated economic arrangements and now by the Parties to the Espoo Convention. The conclusion of the Espoo Convention on February 25, 1991, represented the coming together of realizations of several different local, national and international environmental truisms among the signatories to the Convention. The environmental impact assessment process was originally

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<sup>61</sup>(...continued)

views the Espoo Convention as improving their EIA Directive with regard to its field of application (which is broader), the post-project analysis procedure and the content of the assessment documentation. Proposal for a Council Decision Concerning the Conclusion, on Behalf of the Community, of the Convention on Environmental Impact Assessment in a Transboundary Context, OJ No. C 72, 15.3.1993.

<sup>62</sup>Robinson, *supra* note 7, at 602. *But see* Kass & Gerrard, *International Impact Assessment*, N.Y.L.J., Oct. 25, 1991 at 3.

established to ensure that environmental consequences were factored into a nation's governmental decision making.<sup>63</sup>

[And now it] is a proven technique used to ensure that governmental actions avoid or minimize unanticipated adverse effects. It provides a process for institutionalizing foresight. While its essential structure is substantially the same throughout the world, EIA is flexible and has been adapted successfully to operate within the cultural, political, and socioeconomic conditions in each jurisdiction that has enacted an EIA law.<sup>64</sup>

The Espoo Convention takes this idea to the international plane in recognition of the fact that decisions made/actions done in individual countries can and do have transboundary impacts. This was not a new realization. *Sic utere tuo ut alienum non laedas*<sup>65</sup> is a well settled principle of international law.<sup>66</sup> It was the basis for the Trail Smelter decision<sup>67</sup> in the 1930s, has been adopted in the UN

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<sup>63</sup>NEPA, 42 U.S.C. §§ 4321-4361 (1988).

<sup>64</sup>Robinson, *supra* note 7, at 591.

<sup>65</sup>Use your own property in such a manner as not to injure that of another. 1 Bl. Comm. 306. Chapman v. Barnett, 131 Ind. App. 30, 169 N.E.2d 212, 214.

<sup>66</sup>Robinson, *supra* note 7, at 609.

<sup>67</sup>Trail Smelter Case (U.S. v. Can.), 3 R.I.A.A. 1905 (1949).

Charter,<sup>68</sup> as a principle in both the Stockholm Declaration<sup>69</sup> in 1972 and the Rio Declaration on the Environment and Development<sup>70</sup> and also as an obligation in the Restatement Foreign Relations Law.<sup>71</sup> The growing understanding that the depletion of the stratospheric ozone, the warming of the atmosphere, the increasing loss of biological diversity, the expanding desertification and the rise of sea levels are global challenges not solvable by individual states was certainly another motivating factor for the Parties at Espoo.<sup>72</sup> Finally, it is this author's opinion that the increased awareness of the concepts of sustainable development<sup>73</sup> (the necessity for considering the environment, energy and economy, each as critical parts of the whole to ensure our survival) and the interconnectedness of the biosphere<sup>74</sup> also led not only to the joint understanding of the need for, but also the finalization of this international treaty that, when

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<sup>68</sup>Report of the United Nations Conference on the Human Environment, U.N. Doc. A/CONF. 48/14/Rev. 1 (U.N. Pub. E.73.II.A.14), at 3, 5 (1973).

<sup>69</sup>Principle 21, Stockholm Declaration of the U.N. Conference on the Human Environment, Jun. 16, 1972, U.N. Doc. A/CONF. 48/14 (1972), reprinted in 11 I.L.M. 1416 (1972).

<sup>70</sup>A/CONF. 151/5/Rev. 1, Jun. 13, 1992.

<sup>71</sup>Restatement Foreign Rel. Law 3rd, PART VI, § 601 (1988).

<sup>72</sup>Robinson, *supra* note 7, at 604.

<sup>73</sup>World Commission on Environment and Development, Our Common Future (1987).

<sup>74</sup>*Id.* at 8; Caldwell, International Environmental Policy (2nd ed., 1990).

implemented, will synthesize all these concerns (transnational as well as transgenerational) into governmental decision making.

The Espoo Convention is instructive for the purposes of this paper because of the improvements to EIA that have been incorporated in this international context. The major one is post-project analysis.<sup>75</sup> While not a mandatory requirement in the Convention, at the request of any concerned Party, a post-project analysis may be undertaken, and if a significant adverse transboundary impact is discovered, the concerned Parties must then consult on necessary measures to reduce or eliminate the impact.<sup>76</sup> This will provide the necessary "feedback loop"<sup>77</sup> to ensure the objectives set out in Appendix V (Post Project Analysis) of the Convention<sup>78</sup> are met and that both the environmental effects of the activity have been seriously taken into account and that actual environmental degradation has been avoided. The objectives of post-project

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<sup>75</sup>Espoo Convention, *supra* note 61, at 807, 816.

<sup>76</sup>*Id.* Article 15 of the Convention addresses the settlement of disputes between Parties. They may seek a solution by negotiation or by any other agreed upon method. Espoo Convention, *supra* note 61, at 810. A Party may submit, by declaration, to compulsory jurisdiction of the International Court of Justice or to arbitration pursuant to Appendix VII. *Id.*

<sup>77</sup>Sand, *supra* note 41, at 278.

<sup>78</sup>Espoo Convention, *supra* note 61, at 816.

analysis are: monitoring compliance,<sup>79</sup> review of an impact for proper management in order to cope with uncertainties, and verification of past predictions in order to transfer experience to future activities of the same type.<sup>80</sup>

A comprehensive report on post-project analysis (PPA), prepared by the task force on environmental impact assessment auditing,<sup>81</sup> with Canada as lead country, was published in 1990.<sup>82</sup> The task force participants<sup>83</sup> provided eleven cases for comparative case study analysis. The task force made the following

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<sup>79</sup>The purposes of monitoring are to ensure the conditions set out in the authorization/approval of the activity are complied with and the mitigation measures are effective. *Id.*

<sup>80</sup>*Id.*

<sup>81</sup>This task force was established by the Senior Advisors to Economic Commission for Europe Governments on Environmental and Water Problems. PPA Report, *supra* note 52, at 50.

<sup>82</sup>PPA Report, *supra* note 52. For the purposes of this study, PPA was defined as "[e]nvironmental studies undertaken following the decision to proceed with a given activity. They are done in order to ensure or to facilitate the implementation of the activity in accordance with the terms imposed by the environmental assessment process or they may be aimed at learning from the particular activity studied. PPAs are also known as follow-up studies or environmental audits." *Id.* at 53.

<sup>83</sup>Canada; Finland; Germany, Federal Republic of; Hungary; Netherlands; Norway; Poland; Sweden; Union of Soviet Socialist Republics; and the U.S. participated in the task force. Denmark, German Democratic Republic, Switzerland, and Yugoslavia provided information on legal and administrative policies regarding PPA. *Id.* at v.

conclusions, representing the state of knowledge and experience at the end of 1988:

. . . post-project analyses are a very effective and necessary means of continuing the EIA process into the implementation phase because of their uses for the following purposes:

- (a) To monitor compliance with the agreed conditions set out in construction permits and operating licenses;
- (b) To review predicted environmental impacts for proper management of risks and uncertainties;
- (c) To modify the activity or develop mitigation measures in case of unpredicted harmful effects on the environment;
- (d) To determine the accuracy of past impact predictions and the effectiveness of mitigation measures in order to transfer this experience to future activities of the same type; and
- (e) To review the effectiveness of environmental management for the activity.<sup>84</sup>

There are several other improvements to EIA included in the Espoo Convention. The treaty has moved away from the trend of using lists (of projects for which EIA is required) and restricting EIA to large projects<sup>85</sup> to providing a procedure for addressing proposed activities that are not listed in the Convention's Appendix I (activities requiring EIA before approval) that are none

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<sup>84</sup>*Id.* at 3.

<sup>85</sup>Robinson, *supra* note 7, at 596.

the less likely to cause a significant adverse transboundary impact.<sup>86</sup> While the Convention requires EIA at the proposed project level, at a minimum, it also encourages its application to policies, plans and programs<sup>87</sup> -- thereby making its potential application very broad. The annual review of the Convention's implementation by the Parties and the amendment process are also examples of the flexibility required of international environmental regimes.<sup>88</sup>

As stated above, EIA has already been adopted by many countries, but the Espoo Convention can further this transnational diffusion. It not only is a vehicle for exchanging information between parties but can be held out as the minimum acceptable standards for applying EIA internationally. The research programs it encourages in Article 9 are also geared toward improving the effectiveness of EIA.<sup>89</sup>

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<sup>86</sup>Espoo Convention, *supra* note 61, at 803.

<sup>87</sup>*Id.* at 803, 814.

<sup>88</sup>A. Hurrell & B. Kingsbury, *The International Politics of the Environment* 14-19 (1992).

<sup>89</sup> The Parties shall give special consideration to the setting up, or intensification of, specific research programmes aimed at:

(a) Improving existing qualitative and quantitative methods for assessing the impacts of proposed activities;

(b) Achieving a better understanding of cause-effect relationships and their role in integrated environmental

(continued...)



The Parties to the Convention expect bilateral and multilateral cooperation in its implementation. Appendix VI encourages these arrangements to include harmonization of methodologies and policies relating to implementation of EIA, establishment of threshold levels and more specific criteria for defining significance of transboundary impacts and the establishment of critical loads of transboundary pollution.<sup>90</sup>

It is interesting to note that NEPA recognized the international environmental implications of governmental decision making in 1969. NEPA § 102(2)(F) required the Federal Government to:

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<sup>89</sup>(...continued)  
management;

(c) Analysing and monitoring the efficient implementation of decisions on proposed activities with the intention of minimizing or preventing impacts;

(d) Developing methods to stimulate creative approaches in the search for environmentally sound alternatives to proposed activities, production and consumption patterns;

(e) Developing methodologies for the application of the principles of environmental impact assessment at the macro-economic level.

The results of the programmes listed above shall be exchanged by the Parties.

Espoo Convention, *supra* note 61, at 807, 808.

<sup>90</sup>*Id.* at 817.

recognize the worldwide and long-range character of environmental problems and, where consistent with the foreign policy of the U.S., 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.<sup>91</sup>

Despite this recognition, the U.S. has been reluctant to apply NEPA to federal actions abroad. Infringement on the sovereignty of other nations by imposing U.S. law on foreign soil<sup>92</sup> and interference with U.S. foreign policy interests<sup>93</sup> are among the reasons for this reluctance. However, there may soon be a change in this policy decision. Executive Order 12114, issued in 1979, specifically requires federal agencies to assess the environmental impact of certain "major" actions abroad; however, it exempts other actions from this requirement.<sup>94</sup> Not only is this order ambiguous, it also only partially implements the requirements of NEPA section 102(2)(F). In April 1993, after the Environmental Defense Fund, Inc. v. Massey<sup>95</sup> case in which the court determined that NEPA applied to the National Science Foundation's actions to

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<sup>91</sup>42 U.S.C. § 4332(2)(f).

<sup>92</sup>Greenpeace USA v. Stone, 748 F. Supp. 749 (D. Haw. 1990).

<sup>93</sup>NEPA Coalition of Japan v. Aspin, No. 91-1522, 1993 U.S. Dist. LEXIS 17090 (D.D.C.)(Nov. 30, 1993).

<sup>94</sup>GAO/RCED-94-55, Improved Procedures Needed for Environmental Assessments of U.S. Actions Abroad (Feb. 1994).

<sup>95</sup>786 F.2d 528 (D.C. Cir. 1993).

incinerate food wastes in Antarctica, the National Security Council began a review (Presidential Review Directive (PDR) #23) to determine whether changes are needed to the current policy governing the assessment of the environmental impact of actions abroad.<sup>96</sup> So even though the United States signed the Espoo Convention in February 1992,<sup>97</sup> our country's ratification and implementation of it are being held up because the current administration is still grappling with how far to extend NEPA's extraterritorial application.<sup>98</sup>

U.S. Senator Claiborne Pell had pushed for an international EIA convention in the late seventies,<sup>99</sup> but it was the United Nations Environment Programme (UNEP) that incorporated the idea into its principles and guidelines in 1986-87.<sup>100</sup> In September 1987 the UN Economic Commission for Europe sponsored the EIA conference which culminated in the 1991 Espoo Convention on EIA in a Transboundary Context.<sup>101</sup>

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<sup>96</sup>GAO Report, *supra* note 94, at 3.

<sup>97</sup>*Id.* at 13, 14.

<sup>98</sup>Telephone interview with Joe Montgomery, U.S. EPA, and Evelyn Wheeler, U.S. State Dept., Mar. 1994.

<sup>99</sup>Telephone interview with Ann Miller, U.S. EPA, Mar. 1994.

<sup>100</sup>*Id.*

<sup>101</sup>*Id.*

Even though our Congress conceived EIA twenty-five years ago, the United States is being left behind as the process is improved in the international environmental arena. The leadership of our government must act soon to clarify and strengthen not only our national application of NEPA but its effects internationally. We would be foolish to ignore the many improvements that are being made to EIA around the world which are increasing both its importance and effectiveness.

#### **PART IV. DOMESTIC PRESSURES FOR REFORM**

There are several indicators in the U.S. that reveal more effective/substantive NEPA analysis is being done than just that required by the Supreme Court's interpretations of NEPA. This could provide the basis for necessary changes to strengthen our federal national environmental policy. These indicators can be found in what some states have done in their little NEPAs, the myriad of CEQ activities, and the thrust of several Clinton Administration initiatives. All of which will be discussed in this part.

## A. STATE LITTLE NEPAS

Fourteen states, the District of Columbia and Puerto Rico have enacted laws derived from NEPA.<sup>102</sup> This copying from NEPA's statutory structure and borrowing from its common law by states in establishing their own individual environmental planning requirements has been called "reverse federalism" by some authors.<sup>103</sup> Some states' little NEPAs have gone further than the federal NEPA in both their substantive mandates and providing for standards of judicial review. The relevant portions of three states' (California, Washington and New York) environmental policy acts will be discussed briefly in this part.

While the California Environmental Quality Act's (CEQA)<sup>104</sup> procedural requirements are similar to NEPA's, it provides Californians a stronger, clearer

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<sup>102</sup>States With Little NEPAs, undated list received from the Council on Environmental Quality on July 5, 1994. States with little NEPAs include Ca., Ct., Ha., In., Md., Mass., Minn., Mont., N.Y., N.C., S.D., Va., Wa., Wi. This listing also included 13 states with limited environmental review requirements established by statute, executive order, or other administrative directives. These include Az., Ak., Del., Fl., Ga., La., Mich., N.J., N.D., Or., Penn., R.I., and Utah.

<sup>103</sup>Nicholas Yost, *NEPA's Progeny: State Environmental Policy Acts*, 3 ENVTL. L. REP. (ENVTL. L. INST.) 50,090 (Aug. 1973) ("The federal government has served as an experimental laboratory for the various states."); Ferester, *supra* note 8, at 230.

<sup>104</sup>CAL. PUB. RES. CODE §§ 21,000-21,177 (West 1986 & Supp. 1991).

legislative mandate for environmentally-sensitive decision making.<sup>105</sup> Along with its aspirational commands it includes provisions that require agencies to "take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state,"<sup>106</sup> and "to provide [California citizens] with clean air and water [and] enjoyment of aesthetic, natural, scenic, and historic environmental qualities."<sup>107</sup> It further directs that prevention of "elimination of fish or wildlife species due to man's activities,"<sup>108</sup> and ensuring "the long term protection of the environment . . . shall be the guiding criterion in public decisions . . . ."<sup>109</sup>

The key provisions for infusing substance into agency decision making are those setting forth the mandatory mitigation policy and the findings statement.<sup>110</sup> CEQA requires that agencies "shall mitigate or avoid the significant effects on the environment of projects . . . whenever it is feasible to

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<sup>105</sup>This 150 page statute was originally enacted in November, 1970, but has been amended at least thirteen times as the California legislature strives to address its shortcomings and clarify its purpose. In contrast NEPA has never been amended. Ferester, *supra* note 8, at 231.

<sup>106</sup>CAL. PUB. RES. CODE § 21,001(a).

<sup>107</sup>*Id.* § 21,001(b).

<sup>108</sup>*Id.* § 21,001(c).

<sup>109</sup>*Id.* § 21,001(d).

<sup>110</sup>*See, infra*, note 114.

do so."<sup>111</sup> It also directs agencies to reject or modify proposed projects "if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the [project's] significant environmental effects."<sup>112</sup> If an agency determines particular alternatives or mitigation measures infeasible, it must have "specific" economic, social or other reasons for its finding.<sup>113</sup> When agencies approve projects subject to CEQA, they are required to issue a "findings statement."<sup>114</sup> As feasible mitigation or feasible alternatives (which

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<sup>111</sup>*Id.* § 21,002.1(b). The statute defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." *Id.* § 21,061.1.

<sup>112</sup>*Id.* § 21,002.

<sup>113</sup>*Id.* §§ 21,002, 21,081(c).

<sup>114</sup>In accordance with Section 21,081 that provides:

Pursuant to the policy stated in Sections 21002 and 21002.1, no public agency shall approve or carry out a project . . . which identifies one or more significant effects thereof unless such public agency makes one, or more, of the following findings:

(a) Changes or alterations have been required in, or incorporated into, such project which mitigate or avoid the significant environmental effects . . . identified in the [EIR].

(b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and such changes have been . . . or can and should be adopted by such other agency.

(continued...)

would substantially lessen the significant environmental effects) are required unless the agency can articulate "specific" reasons why they are not feasible, CEQA's procedural provisions are infused with its substantive directives.<sup>115</sup>

CEQA also includes provisions concerning the timing and scope of judicial review.<sup>116</sup> Applying these standards, the California courts have

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<sup>114</sup>(...continued)

(c) Specific economic, social or other considerations make infeasible the mitigation measures or project alternatives identified in the [EIR].

<sup>115</sup>Ferester, *supra* note 8, at 235.

<sup>116</sup>Unlike NEPA, CEQA contains explicit judicial review provisions. As NEPA has no explicit judicial review provisions, the courts review NEPA cases using the Administrative Procedures Act standards. CAL. PUB. RES. CODE § 21,167 in contrast lays out the statute of limitations period for CEQA challenges which are very short (30-35 days in most cases). The maximum statute of limitation is 180 days when either (1) an agency has not yet determined whether a project will have a significant impact on the environment, or (2) a project is undertaken without a formal CEQA decision. CAL. PUB. RES. CODE §§ 21,168 and 21,168.5 govern the appropriate standard of review. The California Supreme Court has stated, "the standard of review is essentially the same under either section, i.e., whether substantial evidence supports the agency's determination." *Laurel Heights Improvement Ass'n v. Univ. of Cal.*, 764 P.2d 278, 283 (Cal. 1988).



interpreted CEQA to be more substantive than NEPA<sup>117</sup> and have held agencies to the substantive components of the Act discussed above.<sup>118</sup>

The State of Washington enacted its State Environmental Policy Act (SEPA)<sup>119</sup> in 1971 and while its provisions are very similar to NEPA, there are some key differences. SEPA's policy statement states that the "legislature recognizes that each person has a fundamental and inalienable right to a healthful environment . . . ."<sup>120</sup> While the Washington courts have recognized

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<sup>117</sup>In *Sierra Club v. Gilroy City Council*, 271 Cal. Rptr. 393, 398 (Ct. App. 1990), the court noted that unlike the "essentially procedural" NEPA, CEQA contains substantive provisions with which agencies must comply.

<sup>118</sup>Sometimes more strictly than others. In *Laurel Heights Improvement Association v. University of California*, 764 P.2d 278 (Cal. 1988), the supreme court found an environmental impact report (EIR) for the proposed relocation of the biomedical facility insufficient because it failed to adequately consider siting proposals. *Cf. Citizens of Goleta Valley v. Board of Supervisors*, 801 P.2d 1161 (Cal. 1990). In this case the court ultimately upheld a county's decision approving a coastal hotel development despite the EIR's failure to consider alternatives to the developer's proposed location and wrote "we may not, in sum, substitute our judgment for that of the people and their local representatives. We can and must, however, scrupulously enforce all legislatively mandated CEQA requirements." The court distinguished Laurel Heights as a case reviewing an EIR where no alternatives were discussed, from the present case where only those few alternatives found "feasible" by the county board were considered.

<sup>119</sup>WASH. REV. CODE ANN. §§ 43.21C.010-.21C.910 (West 1983 & Supp. 1991).

<sup>120</sup>*Id.* at § 43.21C.020(3). This language was used by the Senate in its original version of NEPA but was later changed by the conference committee. 115 Cong. Rec. 40, 416 (1969). NEPA § 101(c), 42 U.S.C. § 4331(c), now  
(continued...)

this important difference<sup>121</sup> it is still debatable whether it has provided stronger environmental protections.<sup>122</sup>

SEPA was amended in 1984 to provide agencies "substantive authority" to condition or deny agency actions that were previously considered ministerial (e.g. the issuance of a grading permit)<sup>123</sup> on the basis of environmental

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<sup>120</sup>(...continued)

reads "Congress recognizes that each person should enjoy a healthful environment."

<sup>121</sup>In *Leschi Improvement Council v. Washington State Highway Comm'n*, the court, writing about SEPA's policy statement, stated it "indicates in the strongest possible terms the basic importance of environmental concerns to the people of this State. It is a far stronger policy statement than that found in the National Environmental Policy Act." 525 P.2d 774, 781 (Wash. 1974).

<sup>122</sup>"While this provision [§ 43.21C.020(3)] to date has been more symbolic than substantive, the situation may change as the courts extend a new respect to a policy expression that has demonstrated its staying power." William Rodgers, *The Washington Environmental Policy Act*, 60 WASH. L. REV. 33, 34 (1984).

<sup>123</sup>*Juanita Bay Valley Community Ass'n v. Kirkland*, 510 P.2d 1140 (Wash. Ct. App.) (1973). In this case the court held SEPA requires branches of government to exercise legislative discretion with reference to the issuance of land use permits otherwise available as a matter of right in order to assist in the implementation of the state's environmental policy. *Id.* at 1142.

concerns,<sup>124</sup> thus codifying case law.<sup>125</sup> Under section 43.21C.060, agency denials must be based on previously identified administrative policies, must follow the EIA process, and must deem reasonable mitigation measures insufficient.<sup>126</sup> These procedures have been strictly construed and vigorously enforced.<sup>127</sup>

Judicial review in the Washington courts under SEPA has developed differently than it has in the federal courts under NEPA. SEPA, as a result of amendments in 1983, "provides a basis for challenging whether governmental

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<sup>124</sup>WASH. REV. CODE ANN. § 43.21C.060, provides that:

Any government action may be conditioned or denied pursuant to this chapter: Provided, That such conditions or denials shall be based upon policies identified by the appropriate governmental authority and incorporated into regulations, plans, or codes which are formally designated by the agency . . . as possible bases for the exercise of authority pursuant to this chapter.

<sup>125</sup>Juanita Bay, 510 P.2d 1140 (Wash. Ct. App. 1973); Polygon Corp. v. Seattle, 578 P.2d 1309 (Wash. 1978).

<sup>126</sup>WASH. REV. CODE ANN. § 43.21C.060.

<sup>127</sup>*See, e.g.,* Cougar Mountain Assocs. v. King County, 765 P.2d 264 (Wash. 1988) (holding that "clearly erroneous" standard of review applies to substantive decision under SEPA); West Main Assocs. v. Bellevue, 742 P.2d 1266 (Wash. Ct. App. 1987) (affirming lower court's denial of appellant's application for design approval of development, holding that courts cannot substitute their judgment for that of administrative body, i.e., city council, and finding that adverse impacts need not be specifically labelled "significant" for council to consider them in making its decision).

action is in accordance with . . . this chapter,"<sup>128</sup> and in actions attacking governmental determinations under SEPA, the agency's decision "shall be accorded substantial weight."<sup>129</sup> The Washington courts have used two standards of review. The "arbitrary and capricious"<sup>130</sup> standard is most often used; however, the less deferential "clearly erroneous" standard<sup>131</sup> has been used in some cases.<sup>132</sup> Two recent cases make clear the importance of procedural compliance with SEPA before the courts will uphold the administrative exercise

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<sup>128</sup>WASH. REV. CODE ANN. § 43.21C.075(1).

<sup>129</sup>*Id.* § 43.21C.090.

<sup>130</sup>*See* *Barrie v. Kitsap County*, 613 P.2d 1148 (Wash. 1980).

<sup>131</sup>*See, e.g.,* *Cougar Mountain Assocs. v. King County*, 765 P.2d 264, 267 (Wash. 1988). In *Polycorp* the Washington Supreme Court said that the "clearly erroneous" standard calls for a higher degree of scrutiny than does the standard normally appropriate for administrative actions because of a "potential for abuse, together with a need to ensure that an appropriate balance between economic, social and environmental values is struck." 578 P.2d at 1315.

<sup>132</sup>These have involved two types of cases. *Ferester*, *supra* note 8, at 245. One type involves negative threshold determination cases where an agency determines after a preliminary review of environmental effects, that the project will cause no significant effects meriting preparation of an EIS. WASH. ADMIN. CODE § 197-11-330 (threshold determination process); *see, e.g.,* *ASARCO Inc. v. Air Quality Coalition*, 601 P.2d 501 (Wash. 1979); *Norway Hill Preservation & Protection Ass'n v. King County Council*, 552 P.2d 674 (Wash. 1976). The other type is when an agency exercises its substantive SEPA authority to deny a building permit (*Polygon Corp.*, 578 P.2d at 1309) and to deny an application for a subdivision (*Cougar Mountain Assocs.*, 765 P.2d 264 (Wash. 1988)).

of substantive SEPA authority.<sup>133</sup> The question that still looms in Washington is whether SEPA mandates that agencies mitigate harmful effects.<sup>134</sup> The courts have not yet confronted this issue.<sup>135</sup>

New York's State Environmental Quality Review Act (SEQRA)<sup>136</sup> has the most substantive language<sup>137</sup> of the three state statutes discussed, but the New

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<sup>133</sup>Ferester, *supra* note 8, at 246. In *Cougar Mountain Assocs. v. King County*, the court held that the county did not cite with sufficient specificity the statutory or regulatory policies allegedly in conflict with project application and there were no detailed findings regarding the inability to mitigate the environmental harm. 765 P.2d at 268-75. In *Levine v. Jefferson County*, the court ordered the permit issued without mitigative restrictions because the county had created a thoroughly inadequate record, "devoid of any agency findings of fact or citations to any policies to support the attachment of the restrictions." 807 P.2d 363, 366-67 (Wash. 1991).

<sup>134</sup>Ferester, *supra* note 8, at 247.

<sup>135</sup>*Id.*

<sup>136</sup>N.Y. ENVTL. CONSERV. LAW §§ 8-0101 to 8-0117 (McKinney 1984 & Supp. 1991). This law was enacted in 1975, but its implementation was phased in; it became fully effective on Nov. 1, 1978. Sandra M. Stevenson, *Early Legislative Attempts at Requiring Environmental Assessment and SEQRA's Legislative History*, 46 ALB. L. REV. 1114, 1120-26; N.Y. ENVTL. CONSERV. LAW § 8-0117(4), (5)(d).

<sup>137</sup>§ 8-0102(9) directs that public agencies "*shall* regulate . . . activities so that due consideration is given to *preventing* environmental damage." (emphasis added) "In contrast [to NEPA], SEQRA requires agencies to mitigate the environmental harm of their projects - a mandate expressed not only in [section 8-0103(9)] but [also] in section 8-0109(1) . . . ." Philip Weinberg, *Commentary to the New York Environmental Conservation Law*, § 8-0103 (McKinney 1984). § 8-0109(1) directs that agencies "shall use all practicable means to realize the policies and goals set forth in [SEQRA], and *shall act and choose alternatives*"  
(continued...)

York courts have been inconsistent in their interpretation of this language.<sup>138</sup> SEQRA not only requires agencies to choose an environmentally favorable alternative<sup>139</sup> but an agency must also complete five specific steps before approving a project for which an EIS has been completed under SEQRA.<sup>140</sup>

[I]t must fully consider the final EIS; it must make a written finding that SEQRA's requirements have been met; it must make written findings that the project, to the maximum extent practicable, is "consistent with social, economic and other essential considerations," and that adverse environmental effects will be minimized or avoided; it must ensure that the practicable mitigating measures are implemented; and finally, it must explain in writing how issues were resolved through its balancing process.<sup>141</sup>

SEQRA, like NEPA, has no provision regarding judicial review but the courts have interpreted SEQRA's limiting language in its substantive provisions so as to find that agencies have considerable discretion.<sup>142</sup> Further, the New

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<sup>137</sup>(...continued)

*which . . . to the maximum extent practicable, minimize or avoid adverse environmental effects.*" (emphasis added).

<sup>138</sup>Ferester, *supra* note 8, at 253.

<sup>139</sup>*Id.* at 249.

<sup>140</sup>*Id.* at 250.

<sup>141</sup>*Id.* citing Philip H. Gitlen, *The Substantive Impact of the SEQRA*, 46 ALB. L. REV. 1241, 1249-50 (1982).

<sup>142</sup>Ferester, *supra* note 8, at 251. "[I]n accordance with its balancing philosophy, SEQRA requires the imposition of mitigation measures only to the maximum extent practicable consistent with social, economic and other essential  
(continued...)

York Court of Appeals, the state's highest court, has declared that "nothing in the law [SEQRA] requires an agency to reach a particular result on any issue, or permits the courts to second-guess the agency's choice . . . ." <sup>143</sup> This, despite the fact that, SEQRA's substantive components do require particular results (i.e. the adoption of environmentally favorable alternatives or mitigating measures). <sup>144</sup> Yet the court has clearly recognized SEQRA's substantive provisions and the fact that this law requires more of agencies than does NEPA. <sup>145</sup> This confused state of affairs has led at least one author to conclude that while SEQRA sets out important substantive mandates, the state's highest

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<sup>142</sup>(...continued)  
considerations." Jackson, 494 N.E.2d at 439 (citing N.Y. ENVTL. CONSERV. LAW § 8-0109(8)).

<sup>143</sup>Jackson v. New York State Urban Dev. Corp., 494 N.E.2d 429, 436 (N.Y. 1986).

<sup>144</sup>Ferester, *supra* note 8, at 250 n.248.

<sup>145</sup>*See, e.g., Society of the Plastics Indus., Inc. v. County of Suffolk*, 573 N.E.2d 1034, 1039 (N.Y. 1991) ("The substantive component of SEQRA goes beyond its Federal counterpart, the National Environmental Protection [sic] Act (NEPA), in its direction that an agency must choose the alternatives that reduce adverse environmental effects."); Akpan v. Koch, 554 N.E.2d 53, 57 (N.Y. 1990) ("SEQRA also imposes substantive requirements [which require] the lead agency 'to act and choose alternatives, which consistent with social, economic and other essential considerations, to the maximum extent practicable, minimize or avoid adverse environmental effects.'"); E.F.S. Ventures Corp. v. Foster, 520 N.E.2d 1345, 1351 (N.Y. 1988) ("The state has made protection of the environment one of its foremost policy concerns . . . impos[ing] substantive duties on the agencies of government to protect the quality of the environment for the benefit of all the people of the State.").

court's extreme deference to agencies allows SEQRA's substantive mandates to be flouted.<sup>146</sup>

This brief look at three state little NEPAs reveals environmental planning schemes with a variety of substantive measures<sup>147</sup> and different treatment of each statute by the individual state courts. It is important to examine what the states are doing in this area for at least four reasons. First, it reveals ways in which the states are improving upon NEPA's basic structure to increase its effectiveness in each individual state's environmental planning process. Secondly, the most successful parts of these individual statutes can be used as models for improving our federal NEPA process.<sup>148</sup> The third reason state little NEPAs are important is the waivers of sovereign immunity that we are seeing in

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<sup>146</sup>Ferester, *supra* note 8, at 253-54.

<sup>147</sup>The relevant substantive provisions discussed range from a mandate to select alternative standards which are environmentally more favorable than the original proposal, in New York; to a mandate that adverse environmental effects be mitigated, in California; to an authorization for agencies to deny proposals based upon disclosed environmental effects that cannot be mitigated, in Washington. *Id. See, supra* text accompanying notes 110 to 139.

<sup>148</sup>In fact, that is what Mr. Ferrester did in his article, *Revitalizing the National Environmental Policy Act: Substantive Law Adaptations from NEPA's Progeny*, 16 HARV. ENVTL. L.R. 207 (1992). After concluding that "an ideal environmental planning law would have a stronger link between substantive policies and procedural mechanisms than is presently found within NEPA," he attempts to bring NEPA closer to the ideal by proposing substantive legislative amendments to NEPA, based in large part on CEQA, SEPA, and SEQRA. *Id.* at 256-69.



many environmental statutes today,<sup>149</sup> subjecting the federal government to suits by the states. Although within NEPA itself, there is no express waiver of sovereign immunity,<sup>150</sup> NEPA's declaration of national policy is supposed to be carried out in cooperation with state and local governments,<sup>151</sup> and certainly there are some federal activities that have or will conflict with some state's little NEPA's policies or substantive provisions.<sup>152</sup> The fact that state statutes or local ordinances are generally not enforceable against the U.S. for reasons of sovereign immunity does not lessen their importance. This leads to the fourth

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<sup>149</sup>42 U.S.C. § 7418, CAA; 42 U.S.C. § 9620, CERCLA, 42 U.S.C. § 6961, RCRA, etc.

<sup>150</sup>Early appellate court decisions held federal compliance with NEPA's procedural provisions was judicially enforceable. *See, e.g., Calvert Cliffs' Coordinating Comm. v. U.S. Atomic Energy Comm'n*, 449 F.2d 1109 (D.C. Cir. 1971). The Administrative Procedure Act (APA) provides the framework for judicial review of NEPA-mandated activities. 5 U.S.C. §§ 551-559, 701-706 (1988).

<sup>151</sup>NEPA § 101(a), 42 U.S.C. § 4331(a) ("The Congress 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.").

<sup>152</sup>Query, whether a project proponent could do a Finding of No Significant Impact (FONSI) without mitigation, under federal NEPA, even though the federal project would run afoul of a state mini NEPA which would require mitigation? These types of conflicts would probably require analysis under the rules of federal preemption, which are beyond the scope of this paper.

reason state little NEPAs are important in the federal NEPA context. The CEQ regulations require the agency to look at "whether [not the "degree to which"] the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment" when determining the "significance" of the environmental effects of the proposed action.<sup>153</sup> So whether or not these strengthened state little NEPAs force changes to be made legislatively to federal NEPA, they will have an effect on federal agency decision making regarding activities that impact the environment of states with strong, substantive environmental planning and protection statutes.

#### **B. THE COUNCIL ON ENVIRONMENTAL QUALITY'S (CEQ) ACTIVITIES**

The CEQ continues to provide oversight and guidance on NEPA's implementation/application despite several legislative proposals to abolish it (or reorganize the President's environmental staff) during this Congress.<sup>154</sup> In fact,

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<sup>153</sup>40 C.F.R. § 1508.27(10).

<sup>154</sup>The original Administration proposal to abolish CEQ was incorporated into the Senate EPA elevation bill, S.171. The Studds-Dingell proposal to establish an Office of NEPA Compliance was developed as an alternative to and a compromise with the Administration's proposal to abolish CEQ. It became H.R. 3512 and passed the House. There is no companion bill in the Senate. The EPA cabinet bill passed the Senate as S.171, but the companion bill in the House, H.R. 3425 failed a controversial rules vote in the House at the end of last session. NEPA NEWS, Vol. 1, No. 1, May 1994 (published by: NEPA Watch, c/o Center for Marine Conservation).

CEQ is growing in both numbers of staff positions and dollars.<sup>155</sup> The Administration requested one million dollars to support a NEPA oversight staff of 10 full-time equivalent positions for fiscal year 1995,<sup>156</sup> which has been approved.<sup>157</sup> During the Bush administration a review of the annual report, Environmental Quality, reflects an extremely busy CEQ staff.<sup>158</sup> In 1992 alone their priority efforts ranged from participating in the U.N. Conference on Environment and Development (UNCED) in June, chairing the Interagency Committee on Environmental Trends,<sup>159</sup> implementing and administering the President's Environment and Conservation Challenge Awards program,<sup>160</sup> to organizing, chairing and providing administrative support for the President's

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<sup>155</sup>The Administration first requested only \$325,000 and three staff positions for CEQ in FY 1994; eventually, however, they requested \$425,000 in supplemental appropriations and received \$300,000 for a total \$625,000 and seven positions in FY 1994. *Id.* at 1.

<sup>156</sup>*Id.*

<sup>157</sup>Interview with Ray Clark, Acting Chairman, CEQ, in Wash., D.C. (July 5, 1994).

<sup>158</sup>CEQ, Environmental Quality, 20-23rd Annual Reports (1989-1992).

<sup>159</sup>This committee provides an ongoing forum for coordinating and synthesizing environmental data collection and analysis.

<sup>160</sup>"To honor those who honor the environment." CEQ, Environmental Quality, 23rd Annual Report (Jan. 1993).

Commission on Environmental Quality.<sup>161</sup> The CEQ also conducted a series of conferences designed to explore the need for improved incorporation of concerns for ecosystem integrity and the protection of biological diversity into the NEPA process and prepared the subsequent report.<sup>162</sup>

With a reinvigorated CEQ we can expect even more proactive involvement on its part. This year, not only has the Council continued to provide numerous training courses on EIA in both developed as well as developing countries, they are also conducting a national EIA effectiveness study.<sup>163</sup> This study was initiated in preparation for a presentation that was made at an international EIA summit in Canada in June of this year where EIA administrators from 30 nations discussed the effectiveness of their nations' EIA statutes.<sup>164</sup> CEQ is going beyond the scope of the June conference to analyze

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<sup>161</sup>This Commission, whose members are business, environmental, academic and philanthropic leaders launched ten initiatives to test innovative methods in pollution prevention, energy efficiency, natural resources stewardship, international cooperation, and education and communications. *Id.*

<sup>162</sup>*Id.* This was published in Jan. 1993 and is discussed *infra*.

<sup>163</sup>Interview with Elizabeth Blaug, Attorney in CEQ General Counsel's Office in Wash., D.C. (May 26, 1994). Ms. Blaug has provided EIA training in Turkey and Ukraine.

<sup>164</sup>NEPA NEWS, *supra* note 154, at 2. As part of the Annual International Association of Impact Assessment Conference that was held in Quebec City in June, the Government of Canada hosted an international EIA summit immediately preceding the IAIA Conference.

how well the NEPA process assists decision makers in implementing the nation's environmental goals.<sup>165</sup> They have solicited ideas from four groups: 1) federal agency NEPA liaisons; 2) individuals involved with the drafting and passage of NEPA; 3) the legal community, both within and outside the federal government; and 4) other groups which are affected by and through the NEPA process, such as state and local governments, public interest organizations, business and industry, etc.<sup>166</sup> The Council is presently collecting comments from these groups and hopes to complete the study by December 1994.<sup>167</sup> This is the first time a study on the effectiveness of environmental impact analysis under NEPA has ever been accomplished.<sup>168</sup> The goal of this in depth analysis of critical NEPA implementation issues is to provide recommendations for action by CEQ and the federal agencies to improve the overall effectiveness of the NEPA process.<sup>169</sup> This is clearly a giant step in the right direction toward a strengthened NEPA process.

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<sup>165</sup>NEPA NEWS, *supra* note 154, at 2.

<sup>166</sup>*Id.*

<sup>167</sup>*Id.*

<sup>168</sup>Interview with Ray Clark, Acting Chairman, CEQ, in Wash., D.C. (July 5, 1994).

<sup>169</sup>Environmental Impact Analysis (EIA) Effectiveness Study Information Paper (in materials prepared by CEQ for NEPA Liaison Conference, Mar. 28, 1994).

Two other strong indications that NEPA analysis is getting better, despite the lack of legislative changes so far, are CEQ's study and report on incorporating biodiversity concerns into NEPA analysis<sup>170</sup> and their ongoing cumulative effects initiative.<sup>171</sup> Both of these efforts are aimed at a richer and more sophisticated environmental impact analysis and reflect CEQ's interest in providing more assistance to practitioners in the methodology and science areas of EIA.<sup>172</sup> Scientific knowledge has progressed to the point that the loss of biological diversity is recognized as a major national, as well as global concern, with potentially profound ecological and economic consequences. NEPA provides, not only a framework for federal agencies to consider all reasonably foreseeable environmental effects of their actions, but a mandate.<sup>173</sup> To the extent that federal actions affect biodiversity, and that it is possible to both anticipate and evaluate those effects, NEPA requires federal agencies to do so.<sup>174</sup>

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<sup>170</sup>CEQ, *Incorporating Biodiversity Considerations Into Environmental Impact Analysis Under the National Environmental Policy Act* (January 1993) [hereinafter cited as *Biodiversity Report*].

<sup>171</sup>NEPA NEWS, *supra* note 154, at 3. CEQ is also planning on developing guidance for assessing social impacts pursuant to NEPA. *Id.*

<sup>172</sup>Interview with Ray Clark, Acting Chairman, CEQ, in Wash., D.C. (July 5, 1994).

<sup>173</sup>*Biodiversity Report*, *supra* note 170 at 23.

<sup>174</sup>*Id.*

CEQ's report on incorporating biodiversity into NEPA analysis provides a concise overview of the conceptual frameworks, analytical tools and information that are currently available to support that analysis.<sup>175</sup>

Cumulative effects assessment is very closely related to concerns about biodiversity conservation.<sup>176</sup> While "agencies routinely consider direct effects of their actions and most of the time consider indirect effects, they rarely adequately address the cumulative effects."<sup>177</sup>

A brief review of some of the case law in this area reveals the struggle agencies have had with properly analyzing the cumulative effects of their

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<sup>175</sup>Biodiversity Report, *supra* note 170.

<sup>176</sup>*Id.* at 21.

<sup>177</sup>Cumulative Effects Initiative Information Paper (in materials prepared by CEQ for NEPA Liaison Conference, Mar. 28, 1994). From January 1, 1992 through June 30, 1992, one study analyzed 89 EAs to determine the extent to which treatment of cumulative effects met the CEQ requirements. Only 35 EAs (39%) mentioned cumulative effects (McCold & Holman, 1993). In 1993, as part of the cumulative effects analysis initiative, CEQ reviewed 116 Final EISs to determine the extent they addressed cumulative effects. Of the 116 Final EISs, 67 EISs mentioned cumulative impact analysis, while 49 EISs did not mention cumulative impact analysis. Of the 67 EISs, only 31 EISs provided evidence of cumulative impact analysis for some or all affected resources discussed in the EIS. *Id.* CEQ regulations define three types of effects: 1) direct, 2) indirect and 3) cumulative. 40 C.F.R. § 1508.7 and .8. Cumulative impact is defined as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. 40 C.F.R. § 1508.7. "Effects and impacts as used in these regulations are synonymous." 40 C.F.R. § 1508.8.

activities.<sup>178</sup> In Fritiofson v. Alexander<sup>179</sup> the court held that when the U.S. Army Corps of Engineers approved a permit to construct a canal system for a housing development on an island in Galveston Bay, Texas, it should have considered the effects, not only of the housing project for which approval was sought, but also the cumulative impacts that other past and future development may have on the island.<sup>180</sup> The court noted that CEQ regulations require connected, cumulative and similar actions to be considered together in the same environmental impact statement when the proposals are functionally or economically related.<sup>181</sup> The court also relied on Sierra v. Kleppe<sup>182</sup> to conclude that the required analysis was limited to actual proposals, not actions which are merely contemplated.<sup>183</sup> A more recent case, Alpine Lakes Protection Society v.

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<sup>178</sup>The issue usually concerns the proper scope of the analysis.

<sup>179</sup>772 F.2d 1225 (5th Cir. 1985).

<sup>180</sup>*Id.* at 1245.

<sup>181</sup>*Id.* at 1242.

<sup>182</sup>427 U.S. 390 (1976).

<sup>183</sup>Fritiofson v. Alexander, 772 F.2d 1225, 1247 (5th Cir. 1985).



U.S. Forest Service<sup>184</sup> reemphasized the requirement for agencies to analyze the cumulative effects of proposed connected actions.

The U.S. Forest Service granted a "Private Road Special Use Permit" to a timber company for a temporary access road which was to be used for a 5-year period to conduct timber management activities.<sup>185</sup> This access request was one of 7 submitted by the timber company for access roads in or near the Alpine Lakes area.<sup>186</sup> After discussing the CEQ regulations on connected and cumulative actions at 40 C.F.R. 1508.25 and cumulative effects at 40 C.F.R. 1508.7 as well as relevant case law, the Court held "The failure to even consider whether there is a potential for cumulative impact on any aspect of the environment except wildlife species as a result of these projects cannot be characterized as a 'truly informed exercise of discretion', nor can it be said to

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<sup>184</sup>Alpine Lakes Protection Society v. U.S. Forest Service, 838 F. Supp. 478 (W.D. Wash. 1993); *see also* Thompson v. Peterson, 753 F.2d 754 (9th Cir. 1985) where the court found that the Forest Service EIS was insufficient because there was no cumulative impact analysis of "connected actions" as required by CEQ regulations; Conner v. Buford, 848 F.2d 1441 (9th Cir. 1988) where the court ordered the Forest Service to conduct a comprehensive analysis of cumulative impacts of several oil and gas development activities before any single activity could proceed. *But also see* National Wildlife Federation v. Federal Energy Regulatory Commission, 912 F.2d 1471 (D.C. Cir. 1990) which rejected the plaintiffs claim that a project with 2 phases should address both phases in the same EIS. The court concluded there was no proposal for the second phase which "will by no means inevitably follow from the first phase".

<sup>185</sup>Alpine Lakes Protection Society, 838 F. Supp. at 479.

<sup>186</sup>*Id.*

amount to the requisite 'hard look' at the environmental consequences of granting the permits in question."<sup>187</sup> It is this failure to even consider whether there is the potential for any cumulative impact as a result of the connected and cumulative actions that makes the Forest Service decision arbitrary and capricious.<sup>188</sup>

While the courts have upheld the cumulative impacts analysis requirement, there is no universally accepted, conceptual approach as to how it should be done.<sup>189</sup> As one of the most difficult environmental impact analysis challenges faced by the agencies, Ray Clark, Acting Chairman of the CEQ, explains the importance of analyzing cumulative impacts:

Experience suggests that perhaps the most ecologically devastating environmental effects may result not from direct effects of a particular proposal, but from the combination of existing stresses and the individually minor effects of multiple actions over time. . . . [For example] BLM links the decline of the Desert Tortoise population in the western U.S. to grazing, off-road vehicle use, military maneuvers, housing developments, garbage dumping, pet collecting and fence construction. If viewed independently each of the impacts could be considered

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<sup>187</sup>*Id.* at 484, *citing* Marsh v. Oregon Natural Resources Council, 490 U.S. at 377, 109 S.Ct. at 1861.

<sup>188</sup>*Id.*

<sup>189</sup>Ray Clark, Cumulative Effects Assessment: A Tool for Sustainable Development (A paper presented at the International Association of Impact Assessment, Shanghai, China, June 1993).

insignificant. Cumulatively, the projects have resulted in the decline of a species.<sup>190</sup>

The CEQ began a cumulative effects analysis initiative in late 1992 to seek methodological approaches to cumulative effects analysis.<sup>191</sup> The lessons learned from this study were:

1. There is no magic formula. Cumulative effects analysis is not a separate and distinct section of environmental impact analysis; it is richer and more sophisticated environmental impact analysis.
2. The biggest challenge in addressing cumulative effects seems to be in the appropriate scoping of time and space boundaries. Scoping should be used to establish the boundaries of a cumulative effects analysis. Scoping helps the Federal, state, local agencies, and interested persons determine the significant environmental issues and de-emphasize insignificant issues and helps determine the scale at which the analysis should occur.<sup>192</sup>

The resulting handbook on cumulative effects analysis is due out soon, but it is not too hard to predict the upcoming guidance.<sup>193</sup> Since some of the same obstacles found in incorporating biodiversity into the NEPA process are what

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<sup>190</sup>*Id.* at 2.

<sup>191</sup>Cumulative Effects Initiative Information Paper, *supra* note 177.

<sup>192</sup>*Id.*

<sup>193</sup>*See*, R. Clark, *supra* note 189; A Guide to the Canadian Environmental Assessment Act, Canadian Environmental Assessment Agency, Hill, Quebec, 1993, which includes a very useful reference guide to addressing cumulative effects. This reference guide is currently being revised for its second release this fall. Canada and CEQ are co-hosting a binational cumulative effects conference in New Orleans, La. in Nov. 1994. Cumulative Effects Initiative Information Paper, *supra* note 177.

make cumulative effects analysis so difficult,<sup>194</sup> one can foresee many of the same concepts and suggestions made in the biodiversity report<sup>195</sup> will also be included in the new handbook to assist practitioners in improving their understanding of cumulative effects and their analysis.

The significance of these efforts by the CEQ is that they reflect an interest not only on the part of the CEQ but also the practitioners (those implementing NEPA) to make the analysis more scientific, accurate, and meaningful. This should lead to its more effective use in the decision making process.

### C. CLINTON ADMINISTRATION INITIATIVES

The Clinton Administration's push for an ecosystem approach to environmental management<sup>196</sup> and the President's Executive Order on

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<sup>194</sup>"[D]ue to the complex ecological interactions, the lack of environmental baseline data, and the scale at which federal agencies plan, the cumulative effects of proposals are extraordinarily more difficult to predict." R. Clark, *supra* note 189 at 2.

<sup>195</sup>Biodiversity Report, *supra* note 170.

<sup>196</sup>Accompanying Report of the National Performance Review (NPR), Office of the Vice President, Reinventing Environmental Management (September 1993).

Environmental Justice<sup>197</sup> will both require a more substantive NEPA if they are to have any real meaning. The National Performance Review (NPR) recommended the President issue a directive that would establish ecosystem management as a national policy and recommended specific steps to implement

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<sup>197</sup>Exec. Order No. 12898, 30 WEEKLY COMP. PRES. DOC. 276 (Feb. 11, 1994); Press Release, The White House Office of the Press Secretary (Feb. 11, 1994).

it.<sup>198</sup> Of course, ecosystem management is not a new idea, the NPR cited some examples of states that are already using this planning strategy.<sup>199</sup>

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<sup>198</sup>"The President should issue a directive that:

- establishes a national policy to encourage sustainable economic development and ensure sustainable ecosystems through ecosystem management;
- states that this policy will be carried out through collaboration between federal agencies and coordination with state, local, and tribal governments and the public;
- calls for phased-in implementation of a cross-agency ecosystem management process for federal actions, beginning with demonstration ecosystems selected by an Interagency Ecosystem Management Task Force. This process will be expanded, as appropriate, to include additional ecosystems and to establish suitable management scales for comprehensive ecosystem management;
- establishes specific overarching goals and general guidelines for the cross-agency ecosystem planning and management process; and
- directs agencies to interpret their existing authorities as broadly as possible to implement the ecosystem management policy and process."

Accompanying Report of the NPR, *supra* note 196 at 14. The first meeting of the Interagency Ecosystem Management Task Force was held on Aug. 4, 1993, to discuss implementation of the NPR recommendations. *Id.* at 15.

- <sup>199</sup> ● Eight state and federal agencies recently signed a Memorandum of Understanding to develop a coordinated state-wide biodiversity planning strategy for ecologically similar regions throughout California. This initiative organizes the principal land management agencies in the state under the long-term goal of conserving the natural heritage of each major region in California while sustaining economic growth and development.

(continued...)

While the NPR recognized that assessment and monitoring (this is where NEPA comes into play) are important components of ecosystem management,<sup>200</sup> the elements recommended to be included in the directive<sup>201</sup> stop short of ensuring that the ecosystem management strategy will protect the environment.

As described by the NPR,

ecosystem management would be based on ecological, not political, boundaries. It would then seek and consider input from all stakeholders affected by federal responsibilities in the area . . . . federal agencies, state, local and tribal governments, businesses, public interest groups, citizens and Congress could work in collaboration to develop specific strategies, refocus current programs, and resources, and better ensure long-term ecological and economic health of the country . . . Ecosystem management should bring potential conflicts between human activity and a

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<sup>199</sup>(...continued)

- The Minnesota Department of Natural Resources is directing an integrated approach to maintain biodiversity based on watersheds, landscapes, and regions involving federal agencies, state and local governments, and the private sector. The management focus will shift from jurisdictional entities, such as state forests, to ecological land units. An example within this program is the Prairie Stewardship Partnership, which seeks to encourage environmentally sustainable economic development while protecting the health and diversity of ecosystems in the northern tallgrass prairie."

Accompanying Report of the NPR, *supra* note 196 at 12 & 13.

<sup>200</sup>*Id.* at 11.

<sup>201</sup>*See supra* note 198.

sustainable environment to light much sooner, when there are more options available to avoid conflicts and satisfy all involved.<sup>202</sup>

NEPA's flexible study structure has always required that the totality of environmental quality concerns be integrated comprehensively into federal policy making and decision making. Ecosystem management is likely to improve the environmental analysis done under NEPA by requiring the "macro" look (vice the project-specific focus) urged by CEQ in their new guidance on incorporating biodiversity into NEPA and improving cumulative effects analysis (*see supra* text accompanying notes 170-195). However, all this (the inevitable money put toward it, the coordination of efforts required, and the better science and data expected from ecosystem management) will not necessarily protect the environment, unless agencies are required to have this information effect their decisions (e.g., by requiring the environmentally preferable alternatives be implemented or at least all feasible/reasonable mitigation measures be taken). The aspirational goals of the Administration's ecosystem management will be just that, unless the link between NEPA's § 101 goals and § 102 process is tightened.

On February 11 of 1994, fulfilling a commitment he made on Earth Day 1993, to address the problem of environmental inequity and discrimination, the

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<sup>202</sup>Accompanying Report of the NPR, *supra* note 196 at 14.



President signed an Executive Order (E.O.) on Environmental Justice.<sup>203</sup> The purpose of the Executive Order is to protect Americans -- particularly those who can least afford it -- from pollution and to help provide safe, clean communities.<sup>204</sup> The E.O. requires all federal agencies to encourage environmental fairness by developing individual agency strategies to prevent disproportionate environmental inequities, to collect and analyze information and provide assessments of environmental and human risk and to increase public participation in the environmental decision making process.<sup>205</sup>

President Clinton signed a memorandum to go along with E.O. 12898 for the purpose of "underscoring certain provisions of existing law that can help ensure that all communities and persons across this Nation live in a safe and healthful environment."<sup>206</sup> NEPA was part of the body of existing law the President discussed.<sup>207</sup> The President wrote, "Each Federal agency shall analyze the environmental effects, including human health, economic and social effects,

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<sup>203</sup>Exec. Order No. 12898, *supra* note 197.

<sup>204</sup>*Id.*

<sup>205</sup>*Id.*

<sup>206</sup>President's Memorandum to the Heads of All Departments and Agencies on the Environmental Justice Executive Order, 30 WEEKLY COMP. PRES. DOC. 279 (Feb. 11, 1994).

<sup>207</sup>*Id.*

of Federal actions, including effects on minority communities and low income communities, *when such analysis is required by the National Environmental Policy Act of 1969.*"<sup>208</sup> Therein lies the rub. The threshold under NEPA over which the requirement for analyzing socioeconomic impacts comes into effect is quite high. Despite Section 101's aspirational language that "it is the continuing policy of the Federal Government . . . 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,"<sup>209</sup> Section 102's procedural mandate limits how we get there by requiring "all agencies . . . [to] include in every recommendation or report on proposals for legislation and other major Federal action *significantly* affecting the quality of the *human environment*, a detailed statement . . . ." <sup>210</sup> In the CEQ regulations "[h]uman environment" includes the natural and physical environment, and

[t]his means that economic or social effects are not intended by themselves to require preparation of an environmental impact statement. When an environmental impact statement is prepared and economic or social and natural or physical environmental

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<sup>208</sup> *Id.* (emphasis added).

<sup>209</sup> NEPA § 101; 42 U.S. § 4331.

<sup>210</sup> NEPA § 102(2)(C); 42 U.S.C. § 4332 (emphasis added).

effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment.<sup>211</sup>

The case law has interpreted this statutory and regulatory language strictly. The current law on standing to sue requires that the alleged injury in fact (such as damage of natural environment which plaintiff uses and enjoys) must be an injury of the type contemplated by the statute, that is, socioeconomic injury alone would not confer standing to sue under NEPA, unless significant environmental injuries are also alleged.<sup>212</sup> Once that hurdle is met and judicial review is granted, the cases have generally held that socioeconomic impacts need only be addressed when they flow from significant environmental impacts.<sup>213</sup> One case appears to limit this requirement even further, finding there must be a reasonably close causal connection between the change in the environment and the disputed impact.<sup>214</sup> This EIS requirement means that in

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<sup>211</sup>40 C.F.R. § 1508.14. Effects includes ecological . . . aesthetic, historic, cultural, economic, social, or health, whether direct, indirect or cumulative. 40 C.F.R. § 1508.8.

<sup>212</sup>*Lujan v. Defenders of Wildlife*, 112 S.Ct. 2130 (1992).

<sup>213</sup>*Village of Palatine v. U.S. Postal Service*, 742 F. Supp. 1377 (N.D. Ill. 1990); *Olmstead Citizens for a Better Community v. U.S.*, 793 F.2d 201 (8th Cir. 1986); *National Association of Government Employees v. Rumsfeld*, 418 F. Supp. 1302 (E.D. Pa. 1976); *Concerned Citizens for the 442nd T.A.W. v. Bodycombe*, 12 ELR 20684 (W.D. Mo. 1982); *Image of Greater San Antonio v. Brown*, 8 ELR 20324 (5th Cir. 1978).

<sup>214</sup>*Metropolitan Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766 (continued...)

most cases (since many more EAs are accomplished than EISs)<sup>215</sup> socioeconomic impacts do not have to be addressed. The EIS threshold (where socioeconomic effects must be assessed) impacts the public's ability to participate in the decision making process, as public participation, while encouraged during the EA process, is only required "to the extent practicable."<sup>216</sup> So while the E.O. directs each Federal agency, "to the greatest extent practicable and permitted by law, . . . to make achieving environmental justice part of its mission by identifying and addressing . . . disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations . . .," NEPA's procedures -- aimed at EISs not EAs, without more, do not necessarily further agency

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<sup>214</sup>(...continued)

(1983) (NEPA requires a reasonably close causal relationship between a change in the physical environment and the effect at issue. The risk of a nuclear accident is not an effect on the physical world.).

<sup>215</sup>CEQ, Environmental Quality, 23rd Annual Report (Jan. 1993).

<sup>216</sup>40 C.F.R. 1501.4(b). Cf. The President's Memo accompanying Exec. Order 12898 which states "[e]ach Federal agency *shall* provide opportunities for community input in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving the accessibility of meetings, crucial documents, and notices." (emphasis added). President's Memorandum, *supra* note 206.

decision making toward this goal.<sup>217</sup> Obviously there are many federal actions that have disproportionately high and adverse human health or environmental effects on minority/low-income populations yet do not reach the level of environmental significance to require an EIS and thus a socioeconomic assessment. In his memo accompanying the Environmental Justice EO, President Clinton states, "[m]itigation measures outlined or analyzed in an environmental assessment . . . whenever feasible, should address significant and adverse environmental effects of proposed Federal actions on minority communities and low-income communities."<sup>218</sup> This is not required by NEPA.

Finally, assuming the biophysical effects of a project are such that an EIS is required, and the socioeconomic and biophysical impacts are interrelated, the agency must then consider<sup>219</sup> the socioeconomic impacts. However, even then this information does not have to effect the ultimate decision made by the

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<sup>217</sup>But see Reich, *Greening the Ghetto: A Theory of Environmental Race Discrimination*, 41 KAN. L.R. 271 (1992), wherein the author concludes that state "little NEPAs" with their stronger substantive and access provisions are better, more effective responses to environmental race discrimination.

<sup>218</sup>President's Memorandum, *supra* note 206.

<sup>219</sup>Vicki Bean in her article, *What's Fairness Got To Do With It? Environmental Justice and the Siting of Locally Undesirable Land Uses*, calls this "[t]he illusion of consideration." 78 CORNELL L.R. 1001, 1066 (1993).

agency. Again, without strengthening NEPA's substantive side, the E.O. on Environmental Justice is just another toothless effort.<sup>220</sup>

## **PART V. NEPA AND TODAY'S UNITED STATES AIR FORCE<sup>221</sup>**

While there are many excellent examples of the federal agencies going beyond the mere procedural requirements of NEPA and effectively using the information generated from the process to modify their decisions so as to both meet their primary mission requirements and minimize the adverse impacts on the environment,<sup>222</sup> this part will examine a few of the Air Force's efforts to go beyond procedural institutionalization of NEPA. The Department of Defense

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<sup>220</sup>The CEQ is developing guidance for social impacts analysis pursuant to NEPA and the CEQ regulations and intends to integrate E.O. 12898 into this guidance. Social Impact Initiative Information Paper (in materials prepared by CEQ for NEPA Liaison Conference, Mar. 28, 1994).

<sup>221</sup>The Department of the Air Force is the environmental steward for more than nine million acres of land (including eleven hundred miles of rivers and streams) on 140 major installations around the world. Lt. Colonel Thomas H. Lillie and Paul K. Williams, *Stewardship of Natural and Cultural Resources: The Air Force Response*, FEDERAL FACILITIES ENVIRONMENTAL JOURNAL (Spring, 1993).

<sup>222</sup>See the CEQ's Annual Report, Environmental Quality. The reports for the years 1987-1988 and 1992 have numerous examples of DOD NEPA activities.

(DOD) has a long -standing commitment to environmental quality,<sup>223</sup> and during the last 25 years the Air Force has clearly internalized the application of the environmental assessment procedures of NEPA to its plans, projects and policies.<sup>224</sup> The 1990s reveal a more strategic and integrated approach is being taken by the Air Force toward environmental planning. Several ongoing efforts are likely to bring about more effective environmental analysis, thus resulting in more protection for the environment. Like the realization that the environment does not have to be sacrificed in order for economic growth to occur,<sup>225</sup> the Air

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<sup>223</sup>General Thomas D. White, Air Force Chief of Staff from 1957-1960 is quoted as saying "Defense is more than planes and missiles to protect the country against an enemy attack. Part of the defense job is the safeguarding of the land, timber and waters, the fish and wildlife, the priceless natural resources which make this country worth defending." CEQ, Annual Report 1987-1988, Ch. 4.

<sup>224</sup>In their article, *NEPA as a Tool for Reducing Risk to Programs and Program Managers*, FEDERAL FACILITIES ENVIRONMENTAL JOURNAL (Spring, 1991), Lt. Colonel Thomas Lillie, who at the time he wrote the article was deputy chief, Environmental Planning Division, Directorate of Acquisition Civil Engineering, Space Systems Division, Los Angeles AFB, CA, and co-author Harold E. Lindenhofen, a member of the Headquarters USAF Environmental Planning Office, Wash, D.C., revealed a thorough understanding of how NEPA applies to Air Force decision making. Lt. Colonel Lillie is now program manager for natural and cultural resources at Headquarters USAF.

<sup>225</sup>This was the consensus reached by 172 participating governments at the 1992 Earth Summit, and it is reflected in the four documents produced at this Conference -- the Rio Declaration on Environment and Development; Agenda 21 and the conventions on climate change and biological diversity.

Force actions reflect an understanding of the fact that mission accomplishment and conservation of the environment go hand in hand.

The Air Force policy on environmental quality states:

Achieving and maintaining environmental quality is an essential part of the Air Force mission. The Air Force is committed to: cleaning up environmental damage resulting from its past activities; meeting all environmental standards applicable to its present operations; planning its future activities to minimize environmental impacts; managing responsibly the irreplaceable natural and cultural resources it holds in public trust; and eliminating pollution from its activities wherever possible.<sup>226</sup>

Air Force Policy Directive (AFPD) 32-70 states that the A.F. Environmental Quality Program will be composed of four pillars: clean up, compliance, conservation and pollution prevention.<sup>227</sup>

As a result of large force reductions, the Air Force has restructured in order to ensure it can fully implement its policy on environmental quality.<sup>228</sup> In 1991, the Air Force Center for Environmental Excellence (AFCEE) was created at Brooks Air Force Base, Texas to centralize all functions that implement NEPA and other programs promoting environmental protection.<sup>229</sup> This Center

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<sup>226</sup>Air Force Policy Directive (AFPD 32-70)(Oct. 1993).

<sup>227</sup>*Id.* at para. 1.3.

<sup>228</sup>Federal Environmental Quality Awards Nomination Package, submitted by the Acting Assistant Secretary of the Air Force (Manpower, Reserve Affairs, Installations and Environment) Pentagon, Wash., D.C., April 4, 1994.

<sup>229</sup>*Id.*



provides a full range of technical services to Commanders in areas related to environmental compliance, pollution prevention, hazardous waste clean up, and environmental planning and analysis.<sup>230</sup> AFCEE is composed of an interdisciplinary team of professionals who consult with a wide range of universities, the Air Force Institute of Technology and other technical research laboratories to produce quality analysis.<sup>231</sup> AFCEE focuses the environmental impact analysis process (EIAP) for execution out in the field. The recently established environmental flights at each installation are staffed with trained environmental specialists who coordinate EIAP at the base level.<sup>232</sup> Close to 200 personnel in the Air Force are committed to NEPA implementation.<sup>233</sup>

While much has and is going on in the other three areas (clean up, compliance and pollution prevention), the efforts discussed in this part will concentrate on the conservation pillar and how these efforts impact on NEPA analysis in the Air Force. In the conservation area the policy directive states:

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<sup>230</sup>*Id.*

<sup>231</sup>*Id.*

<sup>232</sup>*Id.*

<sup>233</sup>Federal Environmental Quality Awards Nomination Package, submitted by the Secretary of the Air Force, Pentagon, Wash., D.C., September 18, 1992. Commitment of Air Force resources has steadily increased over the last 10 years. *Id.* The Air Force has budgeted \$705.4 million for FY 1994 and \$725.5 million for FY 1995 in support of environmental quality. 1994 Award Package, *supra* note 228.

The Air Force will conserve natural and cultural resources through effective environmental planning. The environmental consequences of proposed actions and reasonable alternatives will be integrated into all levels of decision making. The environmental resources under Air Force stewardship will be protected and managed in the public interest. Environmental opportunities and constraints will be the foundation of comprehensive plans for installation development.<sup>234</sup>

Attachment 1 to AFRD 32-70 reveals how compliance with the policy will be measured.<sup>235</sup> Attachments 3 and 4 to AFRD 32-70 (see Appendix I & II) reflect the remarkable strategic and integrative aspects of this policy.<sup>236</sup> It implements 38 directives and laws and interfaces with 22 Air Force Instructions.

Another example of long range incorporation of environmental values is the recently revised Air Force Comprehensive Planning Instruction<sup>237</sup> that

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<sup>234</sup>Air Force Policy Directive (AFPD 32-70)(Oct. 1993) at para. 1.3.

<sup>235</sup>"Adherence to the conservation policy will be assessed by taking measurements in six areas: Base Comprehensive Plan (BCP) preparation trend [measuring percent of BCPs updated and BCP component completions]; Air Installation Compatible Use Zone (AICUZ) report preparation trend [measuring percent of reports validated and updated]; environmental assessment (EA), environmental impact statement (EIS), and mitigation completion trends [measuring milestone completion times and attainment of need dates]; natural and cultural resource management planning trend [measuring percent of installations with completed plans]; wetlands and endangered species inventories trend [measuring percent of installations with completed inventories]; and archeological and historic structures inventories trend [measuring percent of installations with completed inventories]." AFRD 32-70, Attachment 1.

<sup>236</sup>AFRD 32-70, Attachments 3 & 4.

<sup>237</sup>Air Force Instruction (AFI) 32-7062 (April, 1994).

establishes "a systematic framework for decision making with regard to development of Air Force Installations."<sup>238</sup> Comprehensive planning is defined as "the ongoing, iterative, participatory process addressing the full range of issues effecting or affected by an installation's development. Through this process, goals and objectives are defined, issues are identified and information is gathered, alternative solutions are developed and a sound decision making process is employed to select a preferred alternative for implementation."<sup>239</sup> Comprehensive planning incorporates operational, *environmental*, urban planning, and other Air Force programs, to identify and assess development alternatives and ensure compliance with applicable federal, state and local laws and regulations and policies.<sup>240</sup> AFI 32-7062 requires Major Command<sup>241</sup> (MAJCOM) Civil Engineers<sup>242</sup> to ensure the requirements of NEPA are met

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<sup>238</sup>*Id.* at para. 2.1.

<sup>239</sup>*Id.* at Attachment 1.

<sup>240</sup>*Id.* at para. 2.1 (emphasis added).

<sup>241</sup>A Major Command is a major subdivision of the A.F. assigned a specific portion of the A.F. mission; each Major Command is directly subordinate to Headquarters A.F. Air Force Pamphlet 50-34, Vol. 1, pg. 39, Professional Fitness Examination Study Guide (1 Nov. 1992).

<sup>242</sup>With the assistance of Headquarters Air Force Center for Environmental Excellence (HQAFCEE). [HQAFCEE] organizes and manages planning assistance teams to assist installations in developing planning studies, prepares guidance, bulletins, standards, and technical manuals to implement the A.F.

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before a General Plan<sup>243</sup> or significant amendment to a General Plan is approved by the installation commander.<sup>244</sup> The comprehensive planning process includes an analysis of the current, short- and long-range<sup>245</sup> development potential of the base,<sup>246</sup> so provides for very early application of NEPA's environmental analysis process.

The Air Force has also integrated NEPA into the Acquisition process.<sup>247</sup> Although this has already made a difference in protecting the environment,<sup>248</sup>

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<sup>242</sup>(...continued)

Comprehensive Planning Program, supports development of computer-aided design and drafting and geographic information systems, and other interactive computer graphics systems . . . ." *Id.* at para. 1.3.4.1.

<sup>243</sup>A General Plan is defined in Attachment 1 to the Instruction as: "[t]he document that provides the installation commander and other decision-makers a consolidated picture of an installation's capability to support the mission with its physical assets and delivery systems. It is a general assessment of the installation structure to gauge development potential."

<sup>244</sup>*Id.* at para 1.3.5.

<sup>245</sup>Twenty years in the future. *Id.* at Attachment 1.

<sup>246</sup>*Id.* at para 2.2.

<sup>247</sup>DOD Instruction 5000.2 Defense Acquisition Management Policies and Procedures (February 1991), PART 6, Section I, System Safety, Health Hazards and Environmental Impact and A.F. Supplement 1, para. 3.d. (Aug. 1993); DOD Manual 5000.2, Defense Acquisition Management Documentation and Reports (Feb. 1991), PART 4, Section F, Integrated Program Summary, Annex E, Environmental Analysis.

<sup>248</sup>The Air Force prohibited the use of certain hazardous materials, including  
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the guidance in this area<sup>249</sup> is currently undergoing a review at the DOD level to clarify the process and make it more efficient.<sup>250</sup>

The Air Force's proposed rule that would revise its environmental impact analysis process (EIAP)<sup>251</sup> is also evidence that the Air Force is giving more than lip service to environmental values. Although the proposed revision reflects the typical tug between the agency lawyers who want the language to closely parallel the CEQ regulations and the practitioners out in the field (e.g. project proponents) who want detailed guidance as to what is expected of them, it does incorporate practical aspects of the process learned from years of experience<sup>252</sup> and in some cases goes beyond what NEPA and the CEQ

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<sup>248</sup>(...continued)

chlorofluorocarbons, cadmium, and chromium, in the design, manufacture, and operation of the F-22 fighter plane with no sacrifice of cost, schedule or performance and is working with industry to find or develop CFC replacements. CEQ, Environmental Quality 1992, 23rd Annual Report.

<sup>249</sup>*See supra* note 247.

<sup>250</sup>Interview with Jack Bush, HQ USAF/CEVP, Wash., D.C.

<sup>251</sup>Environmental Impact Analysis Process (EIAP), 59 Fed. Reg. 17061 (1994) (to be codified at 32 C.F.R. pt. 989) (proposed April 11, 1994). This proposed rule revises Air Force Regulation (AFR) 19-2, Environmental Impact Analysis Process (August 1982) and when finalized, will become an Air Force Instruction (AFI).

<sup>252</sup>*E.g.* in a new section about Organizational Relationships (§ 989.5 of proposed rule), the timing and other specific requirements for aircraft beddown and unit realignment actions are detailed. 59 Fed. Reg. 17063.

regulations require (discussed *infra*). The proposed revision generally puts more emphasis on an integrative, interdisciplinary approach to planning and provides more detail especially in the area of environmental assessments and mitigation.

The increased emphasis on integrating other areas of concern into the EIAP is broad. There are special provisions regarding: combining EIAP with other documents,<sup>253</sup> actions involving wetlands and flood plains,<sup>254</sup> actions requiring conformity determinations under the Clean Air Act,<sup>255</sup> incorporating air space proposal issues<sup>256</sup> and pollution prevention measures.<sup>257</sup> The proposed

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<sup>253</sup>59 Fed. Reg. 17061, 64, § 989.11.

<sup>254</sup>*Id.* at 17965, § 989.14.

<sup>255</sup>*Id.* and § 989.28 at 17069.

<sup>256</sup>*Id.* at 17068, § 989.27.

<sup>257</sup>*Id.* at 17069, § 989.29. Other examples of the Air Force integrating environmental values into its mission are the Legacy Resource Management Program and the DOD Biodiversity Initiative. The Legacy Program was established by the Defense Appropriations Act of 1991 to promote, manage, research, conserve, and restore the resources on DOD lands. It encourages partnerships with Federal, state, and local agencies, and private groups. Congress has appropriated \$135 million for the Legacy Program in the past four years. The DOD Biodiversity Initiative is a product of the Legacy Program. The primary goal of the initiative is to prepare an overall strategy for managing biodiversity on military lands. The DOD is teaming up with The Nature Conservancy and The Keystone Center to achieve this. Interview with Lt. Colonel Lillie, HQ USAF/CEVP, Pentagon, Wash., D.C. (July 14, 1994).

rule also combines domestic EIAP with the current guidance on NEPA's application overseas.<sup>258</sup>

Starting with the responsibilities for all the key players, the new instruction provides more specificity and more clearly reflects an interdisciplinary approach.<sup>259</sup> However, the more innovative changes occur in the area of environmental assessments (EAs).<sup>260</sup> The new instruction includes a new separate section on analysis of alternatives and treats EAs just like EISs, stating, "[t]his discussion of reasonable alternatives applies equally to EAs and EISs."<sup>261</sup> This goes beyond what is required by law.<sup>262</sup> Another example of

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<sup>258</sup>Executive Order 12114, Environmental Effects Abroad of Major Federal Actions, and 32 C.F.R. Part 187 (DODD 6050.7) Environmental Effects Abroad of Major DOD Actions. However, because of the comments received from other agencies, this is likely to be removed, so will not be examined in this paper. Interview with Kenneth Reinertson, HQ USAF/CEVP, Pentagon, Wash., D.C. (July 14, 1994).

<sup>259</sup>§ 989.3 Responsibilities, provides more specificity as to the responsibilities of the Assistant Secretary of the Air Force for Manpower, Reserve Affairs, Installations and Environment ("Is the approval authority for all EISs prepared for Air Force actions"); better describes the Environmental Planning Function (EPF) and more clearly details what the EPFs and proponent's responsibilities are. 59 Fed. Reg. 17061, 2.

<sup>260</sup>*Id.* at 17064, 5. These changes are likely to make the A.F. lawyer's job more complicated and invite litigation. *See infra* text accompanying notes 261-67.

<sup>261</sup>*Id.* at 17064.

<sup>262</sup>Alternative Analysis for EAs derives from NEPA § 102(2)(E) not  
(continued...)

blurring the distinction between EAs and EISs is the proposed change that would require the draft EA/FONSI be made available to the public for a period to receive comments which would be considered and incorporated, where appropriate, into the EA.<sup>263</sup> This represents a new emphasis on public participation.<sup>264</sup> The new instruction also provides for an abbreviated environmental assessment for those special circumstances when the environmental impacts of a proposed action are clearly insignificant but none of the categorical exclusions (CATEXs) apply.<sup>265</sup> This codifies the practical realities of past practice and helps keep the system more honest and efficient.

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<sup>262</sup>(...continued)

§ 102(2)(C). The rule of reason suggests a more limited alternatives analysis ought to suffice for EAs, although recent case law has diminished this distinction. *See* *Natural Resources Defense Council v. Hodel*, 865 F.2d 288, 294 (D.C. Cir. 1988); *Tongass Conservation Society v. Cheney*, 924 F.2d 1137 (D.C. Cir. 1991); *Headwaters, Inc. v. Bureau of Land Management*, Medford District, 914 F.2d 1174 (9th Cir. 1990).

<sup>263</sup> 59 Fed. Reg. 17061, 17066. This could be confusing the requirements for EISs and EAs. Under the CEQ regulations there is no requirement to provide the public with a draft FONSI nor incorporate comments received into the EA. Even in the limited circumstances requiring a 30 day "publish & wait" period, comments are not solicited nor incorporated into the EA. 40 C.F.R. § 1501.4(e).

<sup>264</sup>Interestingly, some of the comments received from the public and other agencies were concerned about the lack of public participation allowed during the preparation of the EA. The proposed rule states: "[t]he Air Force should involve environmental agencies, applicants, and the public in the preparation of EAs to the extent practicable (40 C.F.R. 1501.4(b))". *Id.* at 17065.

<sup>265</sup>*Id.*



Along with providing more guidance on how to do EAs and EISs the proposed instruction lists helpful examples of actions that "normally" require an EA or an EIS.<sup>266</sup> Another example of going beyond the requirements of law is § 989.14(e) of the proposed rule which says the format for an EA is the same as an EIS.<sup>267</sup>

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<sup>266</sup>" A few examples of actions that normally require preparation of an EA (except as indicated in the CATEX list) include:

- (1) Public land withdrawals of less than 5,000 acres.
- (2) Minor mission realignments and aircraft beddowns.
- (3) Building construction on base within developed areas.
- (4) Minor modifications to Military Operating Areas (MOAs), air-to-ground weapons ranges, and military training routes.
- (5) Remediation of hazardous waste disposal sites."

*Id.* at 17065; "Certain other actions normally, but not always, require an EIS. These include, but are not limited to:

- (1) Public land withdrawals of over 5,000 acres (Engle Act, 43 U.S.C. 155-158).
- (2) Establishment of new air-to-ground weapons ranges.
- (3) Site selection of new airfields.
- (4) Site selection of major installations.
- (5) Development of major new weapons systems (at decision points that involve demonstration, validation, production, deployment, and area or site selection for deployment).
- (6) Establishing or expanding supersonic training areas over land below 30,000 feet MSL (mean sea level).
- (7) Reuse and disposal of closing installations."

*Id.* at 17066.

<sup>267</sup>*Id.* at 17065.

The proposed section on mitigation is not only new and detailed but also evidences the Air Force's desire to commit to mitigation measures.<sup>268</sup> The proposed instruction requires the proponent to fund and implement mitigation measures and keep the EPF informed of the status of these measures.<sup>269</sup> Also, the EPF must provide the results of relevant mitigation monitoring to the public upon request.<sup>270</sup>

The current case law is incorporated, as the instruction states, "[t]he proponent may 'mitigate to insignificance' potentially significant environmental impacts found during preparation of an EA, in lieu of preparing an EIS."<sup>271</sup> Further, the instruction once again goes beyond what NEPA and its case law

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<sup>268</sup>*Id.* at 17067 (When preparing EIAP documents, indicate clearly whether mitigation measures must be implemented for the alternative selected. Both the public and the Air Force community need to know what commitments are being considered and selected, and who will be responsible for implementing, funding, and monitoring the mitigation measures.).

<sup>269</sup>*Id.* at 17967. Mitigation measures are placed into a computer tracking system at HQ Air Force, with status updates/validations accomplished quarterly. Interview with Jack Bush, HQ USAF/CEVP, Pentagon, Wash. D.C. (July 5, 1994).

<sup>270</sup>*Id.* at 17067.

<sup>271</sup>*Roanoke River Basin Assn. v. Hudson*, 940 F.2d 58, 62 (4th Cir. 1991); *C.A.R.E.Now, Inc. v. FAA*, 844 F.2d 1569, 1575 (11th Cir. 1988); and *Don't Ruin Our Park v. Stone*, 802 F. Supp. 1239 (MD Pa. 1992); 59 Fed. Reg. at 17967 (The FONSI for the EA must include these mitigation measures. EA/FONSI mitigation commitments are legally binding and must be carried out as the proponent implements the project.).

mandate by requiring mitigation plans, when mitigation measures are contained in a FONSI or Record of Decision (ROD).<sup>272</sup>

The Air Force is just one example of a Federal Department that is marching toward a more substantive NEPA in the 1990s, in its more strategic, integrative approach to environmental planning.<sup>273</sup> The additional steps the Air Force is willing to take in its revised implementing instruction (publicize the EA, treat alternatives analysis and the format of EAs like EISs, and commit to and track mitigation measures) are small steps toward a more meaningful consideration of environmental values in the decision making process and should lead to more effective protection of the environment.

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<sup>272</sup>*Id.* at 17067 (For each FONSI or ROD containing mitigation measures, the proponent publishes a plan specifically identifying each mitigation, discussing how the proponent will execute the mitigations, identifying who will fund and implement the mitigations and stating when the proponent will complete the mitigation.). Current case law indicates NEPA does not mandate as part of the EIS that a complete plan to mitigate environmental harm be actually formulated and adopted, but rather only requires a discussion of mitigation measures in the EIS or EA. *Robertson v. Methow Valley Citizens*, 490 U.S. 332, 109 S.Ct. 1835, 104 L.Ed. 351, 371-2 (1989); *Audubon Soc. of Central Arkansas v. Dailey*, 977 F.2d 428, 435-6 (8th Cir. 1992).

<sup>273</sup>So as not to paint too rosy a picture, it should be pointed out that the Air Force currently has approximately 10 lawsuits filed against it alleging violations of NEPA. Air Force Environmental Law and Litigation Division Case Docket (Aug. 1994).

## PART VI. CONCLUSION

The time is ripe for the U.S. federal government to take the lead again. Despite the fact that the U.S. Supreme Court has undermined NEPA's substantive goals, we need to reexamine its substantive provisions in light of today's urgent concerns of global warming, the decline of species and ecosystem diversity and the spread of toxic pollution. In 1989, Dinah Bear, former General Counsel of the CEQ, said "it is impossible to think of any environmental issue of current concern . . . that is not already encompassed by NEPA."<sup>274</sup> This is still true today. The groundswell of activity in the environmental impact assessment area -- internationally, domestically and within the federal agencies -- reveals a resurgence of NEPA's importance. This examination of the many ongoing activities in the world of environmental planning and NEPA-style analysis evidences the great need for this country to strengthen its environmental policy.

After the Rio Conference and Agenda 21, the world became more enlightened as to the importance of our planet's natural resources, and it has become apparent that more is needed than process. The process must be made to have an impact on the protection and conservation of these resources. The

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<sup>274</sup>Dinah Bear, *NEPA at 19: A Primer on an "Old" Law With Solutions to New Problems*, 19 ENVTL. L. REP. 10060 (Feb. 1989).

improvements being made to EIA in the global arena and in the states within the United States are proof that this can be done. The rest of the world has seen the merits of EIA (a process conceived by the U.S.) and is running with it, improving it so that it really is making a difference. It is important that we take advantage of this "model diffusion" and incorporate these improvements to better the effectiveness of our National Environmental Policy Act.

The changes that were recommended by the attendees of the Symposium on NEPA's 20th Anniversary are excellent,<sup>275</sup> and some in fact are already starting to happen (e.g. more guidance is coming from CEQ, more attention is being paid to biological and technical conclusions as ecosystem management is implemented, and agencies are starting to commit to and monitor mitigation measures) despite the lack of legislative changes.

In the U.S., NEPA has had a 25 year gestation period. The process has been internalized by the federal agencies and more and more by the state agencies. These agencies, with the help of the courts, have figured out how to do the process and at least make it appear (in some cases) that they have considered the environment in their ultimate decision. Despite the decreasing

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<sup>275</sup> See also Lynton Caldwell, *A Constitutional Law for the Environment: 20 Years With NEPA Indicates the Need*, ENV'T, Dec. 1989 at 6; Ferester, *supra* note 8.

threat of NEPA lawsuits,<sup>276</sup> some agencies (like the Department of the Air Force) are going beyond the process and making it mean something -- reflecting their understanding of the importance of environmental values to mission accomplishment. NEPA could become the Lion King of environmental statutes if it is amended to incorporate the improvements that have been made to EIA and is utilized by the federal agencies to its fullest potential as an integrative planning and compliance tool.

As Lynton Caldwell said, "[w]hat has been lacking is internalization in the body politic of a comprehension of environmental relationships sufficient to compel official commitment to a realization of NEPA objectives."<sup>277</sup> While the Bush Administration started the pendulum swinging back in the direction of environmental concern,<sup>278</sup> President Clinton needs to continue pushing it in that direction. The fact that we have a young administration raised and educated in an era of heightened environmental awareness is hopeful.<sup>279</sup> However, while

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<sup>276</sup>Dinah Bear, *supra* note 274, at n.19.

<sup>277</sup>Lynton K. Caldwell, *NEPA at Twenty: A Retrospective Critique*, 5 NAT. RESOURCES AND ENV'T. 6, at 50 (Summer 1990).

<sup>278</sup>CEQ, Environmental Quality, 23rd Annual Report (Jan. 1993).

<sup>279</sup>Unlike much of the leadership in the rest of the world, who were educated in a different era (when the thought was the world had unending resources), President Clinton and Vice President Gore are readers of books like *Our Common Future* and, of course, Vice President Gore authored the

(continued...)

Professor Rodgers predicts a long slow march toward a more substantive NEPA, the graphic and disturbing news of the "lethal environmental legacy" left behind for the countries that once formed the U.S.S.R.<sup>280</sup> suggests our national environmental policy needs a booster shot, not a long acting, time released pill. The evidence is before us. Reforms are being made. But a strengthened national environmental policy (like achieving sustainable development)<sup>281</sup> rests on political will. Because of the strong public consensus and the numerous pressures highlighted in this paper,<sup>282</sup> it is foreseeable (perhaps imperative) that President Clinton will give this nation's environmental policy the booster shot it needs. Like King Mufasa said to young Simba, "everything you see exists together in a delicate balance. *As King* you will need to understand that balance and respect all creatures, because we are all connected in the great circle of life."<sup>283</sup>

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<sup>279</sup>(...continued)

bestseller, *Earth in the Balance, Ecology and the Human Spirit* (First Plume Printing, Jan. 1993).

<sup>280</sup>Mike Edwards, *Pollution in the Former U.S.S.R., Lethal Legacy*, NATIONAL GEOGRAPHIC, Vol. 186, No. 2, August 1994.

<sup>281</sup>Our Common Future, *supra* note 73.

<sup>282</sup>Not to mention the current administration's need for a win, having been bogged down in the nation's health care dilemma and several foreign policy crises during the first 18 months of its term.

<sup>283</sup>Walt Disney's *The Lion King* (emphasis added).



**DIRECTIVES AND LAWS IMPLEMENTED BY THIS POLICY**

**A3.1. This directive implements the following statutes and international protocols as currently amended:**

**A3.1.1. Clean Air Act (July 14, 1955).**

**A3.1.2. Clean Water Act (October 18, 1972).**

**A3.1.3. Comprehensive Environment Response Compensation and Liability Act of 1980 (December 11, 1980).**

**A3.1.4. Emergency Planning and Community Right-to-Know Act of 1986 (October 17, 1986).**

**A3.1.5. Endangered Species Act (November 10, 1978).**

**A3.1.6. Federal Facilities Compliance Act of 1992 (October 6, 1992).**

**A3.1.7. Montreal Protocol of Substances That Deplete the Ozone Layer (September 1987).**

**A3.1.8. National Environmental Policy Act of 1969 (January 1, 1970).**

**A3.1.9. National Historic Preservation Act (October 15, 1966).**

**A3.1.10. Oil Pollution Act of 1990 (August 18, 1990).**

**A3.1.11. Pollution Prevention Act of 1990 (November 5, 1990).**

**A3.1.12. Resource Conservation and Recovery Act (October 21, 1976).**

**A3.1.13. Safe Drinking Water Act (December 16, 1974).**

**A3.1.14. Sikes Act (December 31, 1982).**

**A3.1.15. Superfund Amendments and Reauthorization Act of 1986 (October 17, 1986).**

**A3.1.16. Toxic Substance Control Act (October 11, 1976).**

**A3.1.17. Water Quality Act of 1987 (February 4, 1987).**

**A3.2. This directive implements the following Executive Orders as currently amended:**

<u>Executive Order</u>	<u>Title</u>	<u>Date</u>
11988	<i>Flood Plain Management</i>	May 24, 1977
11990	<i>Protection of Wetlands</i>	May 24, 1977





<u>Executive Order</u>	<u>Title</u>	<u>Date</u>
12088	<i>Federal Compliance With Pollution Control Standards</i>	October 13, 1978
12114	<i>Environmental Effects Abroad of Major Federal Actions</i>	January 4, 1979
12780	<i>Federal Agency Recycling and Affirmative Procurement</i>	October 31, 1991

A3.3. This directive implements the following DoD publications:

<u>Publication Number</u>	<u>Publication Title</u>	<u>Date</u>
DoD Instruction 4120.14	<i>Environmental Pollution Prevention, Control and Abatement</i>	August 30, 1977
DoD Instruction 4165.57, With Change 1	<i>Air Installation Compatible Use Zones</i>	November 8, 1977
DoD Instruction 4165.59	<i>DoD Implementation of the Coastal Zone Management Program</i>	December 29, 1975
DoD Directive 4165.60	<i>Solid Waste Management Collection, Disposal, Resource Recovery and Recycling Program</i>	October 4, 1976
DoD Directive 4210.15	<i>Hazardous Materials Pollution Prevention</i>	July 27, 1989
DoD Instruction 4700.2	<i>Secretary of Defense Awards for Natural Resources and Environmental Management</i>	July 15, 1988
DoD Directive 4700.4	<i>Natural Resource Management Program</i>	January 24, 1989
DoD Directive 4710.1	<i>Archaeological and Historical Resources Management</i>	June 21, 1984
DoD Directive 5030.41, With Change 1	<i>Oil and Hazardous Substances Pollution Prevention and Contingency Program</i>	June 1, 1977
DoD Directive 5100.50, With Changes 1 and 2	<i>Protection and Enhancement of Environmental Quality</i>	May 24, 1973
DoD Directive 6050.1	<i>Environmental Effects in the United States of DoD Actions</i>	July 30, 1979



<u>Publication Number</u>	<u>Publication Title</u>	<u>Date</u>
DoD Directive 6050.7	<i>Environmental Effects Abroad of Major Department of Defense Actions</i>	March 31, 1979
DoD Directive 6050.8	<i>Storage and Disposal of Non-DoD Owned Hazardous or Toxic Materials on DoD Installations</i>	February 27, 1986
DoD Directive 6050.9	<i>Chlorofluorocarbons (CFCs) and Halons</i>	February 13, 1989
DoD Directive 6050.16	<i>DoD Policy for Establishing and Implementing Environmental Standards at Overseas Installations</i>	September 20, 1991
DoD Directive 6230.1	<i>Safe Drinking Water</i>	April 24, 1978



**RELATED PUBLICATIONS**

A4.1. This directive interfaces with the following Air Force instructions:

<u>Publication Number</u>	<u>Publication Title</u>	<u>Former Publication</u>
<b>General Procedures</b>		
AFI 32-7001	<i>Environmental Budgeting</i>	No Former Publication
AFI 32-7002	<i>Environmental Information Management System</i>	No Former Publication
AFI 32-7003	<i>Environmental Research and Development</i>	No Former Publication
AFI 32-7004	<i>Environmental Education and Training</i>	No Former Publication
AFI 32-7005	<i>Environmental Protection Committees</i>	AFR 19-8
<b>Cleanup</b>		
AFI 32-7020	<i>Installation Restoration Program Management Guidance</i>	No Former Publication
<b>Compliance</b>		
AFI 32-7040	<i>Air Quality Compliance</i>	AFP 19-5
AFI 32-7041	<i>Water Quality Compliance</i>	AFP 19-5
AFI 32-7042	<i>Solid and Hazardous Waste Compliance</i>	AFP 19-5 and AFR 19-11
AFI 32-7043	<i>Hazardous Material Emergency Planning and Response Compliance</i>	AFR 19-8
AFI 32-7044	<i>Tank Compliance</i>	No Former Publication
AFI 32-7045	<i>Environmental Compliance Assessment and Management Program</i>	AFR 19-16
AFI 32-7046	<i>Overseas Environmental Compliance and Restoration</i>	No Former Publication



<u>Publication Number</u>	<u>Publication Title</u>	<u>Former Publication</u>
AFI 32-7047	<i>Compliance Tracking and Reporting</i>	No Former Publication
<b>Conservation</b>		
AFI 32-7060	<i>Interagency Intergovernmental Cooperation</i>	AFR 19-9
AFI 32-7061	<i>Environmental Impact Analysis Process</i>	AFR 19-2
AFI 32-7062	<i>Base Comprehensive Planning</i>	AFR 86-4
AFI 32-7063	<i>Air Installation Compatible Use Zone</i>	AFR 19-9
AFI 32-7064	<i>Natural Resources Management</i>	AFR 126-1
AFI 32-7065	<i>Cultural Resources Management</i>	AFR 126-7
AFI 32-7066	<i>Environmental Baseline Surveys</i>	No Former Publication
<b>Pollution Prevention</b>		
AFI 32-7080	<i>Pollution Prevention Programs</i>	AFR 19-15