The Importance of Adequately Addressing Alternatives: Identification and Analysis in Environmental Impact Assessment

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Abstract

The National Environmental Policy Act (NEPA) was signed into United States Law in 1969 for the purpose of establishing the requirement for adequate environmental analysis of projects occurring on Federal lands or via the utilization of Federal funds. Key to this process is the identification and analysis of viable and feasible alternatives to a proposed action, to include the "No Action Alternative," often utilized as the baseline against which the potential effects of alternatives are compared (32 CFR 651.7). Screening criteria utilized to develop a proposed action and its alternatives must be presented in clear and concise terms, in order to ensure the public and regulatory community understands the alternative development process. The document must also clearly explain why some alternatives are carried forward for detailed review and analysis, while others are eliminated from further review. Recent litigation has highlighted the significance of the failure to either adequately identify alternatives to a proposed action or to pay due attention to the No Action Alternative. Investigation and discussion of the alternative development and analysis process, as illustrated in several recent court cases, will be the focus of this paper.

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I. Goals and Objectives of the National Environmental Policy Act (NEPA)

In 1969, the National Environmental Policy Act (NEPA) established the requirement, as well as the basic method, for the early, comprehensive, and rigorous environmental analysis of Federal actions, including funding, permitting, or use of Federal lands. It required this analysis be conducted up-front of a project, during its planning, siting, and preliminary design phases, with the goal of doing it early, rather than going full steam ahead with a project and fixing any resulting problems at the end. In this manner, operational and environmental considerations would be identified early, sensitive resources avoided (as much as possible), and the project would be in compliance with environmental laws and potentially minimize costs associated with mitigation. Or, in its own words, NEPA sought to "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 ...."[1]

NEPA also established the Council on Environmental Quality (CEQ). In doing so, the framers of NEPA sought to create and instill national policies that promote improvement of the quality of the environment in conjunction with required Federal actions and processes. The CEQ set forth regulations[2] to assist Federal agencies in implementing NEPA during the planning phases of any federal action. This is typically accomplished by the agency establishing its own internal rules for implementing NEPA. For example, the U. S. Army developed and uses 32 Code of Federal Regulations (CFR) Part 651, *Environmental Analysis of Army Actions*, to ensure its actions are in compliance with NEPA[3]. Even the Environmental Protection Agency (EPA) is legally required to comply with the procedural requirements of NEPA for its research and development activities, facilities construction, wastewater treatment construction grants, EPA-issued National Pollutant Discharge Elimination System (NPDES) new source permits, and for certain projects funded through EPA annual Appropriations Acts[4].

NEPA and the CEQ and Federal Agency's regulations guiding its implementation require the analysis be formatted in ways that address a minimum of the following: definition, purpose, and need for the proposed action; reasonable alternatives to the proposed action;

discussion of the direct, indirect, and cumulative potential effects of each alternative; and identification of required mitigation (if adverse effects cannot be avoided). Screening criteria utilized to include and/or discount alternatives must also be presented (in the EA/EIS and the administrative record for the project), to ensure the public and regulatory community understand how and why those alternatives were eliminated from further review.

Recent litigation has highlighted the seriousness of the failure to either adequately identify alternatives to a proposed action or to pay due attention to the No Action Alternative. This has resulted in the court requiring that the agency authoring the document revisit the alternatives development and analysis process, causing timely and potentially costly delays in many projects. Investigation and discussion of several recent court cases help illustrate the importance of adequately, clearly, and concisely conducting alternatives development, selection, and dismissal in the NEPA process.

II. Alternative Development

A. No Action/Status Quo Alternative

The CEQ NEPA regulation calls the analysis of alternatives the “heart” of the Environmental Assessment (EA) or Environmental Impact Statement (EIS), and require Federal agencies to “rigorously explore and objectively evaluate ***all*** reasonable alternatives” to the proposed action[5]. The requirement to adequately discuss alternatives to the proposed action "provid[e]s a clear basis for choice among options by the decision-maker and the public,[6]"and be "sufficiently detailed to reveal the agency's comparative evaluation of the environmental benefits, costs and risks of the proposed action and each reasonable alternative."

This regulation also requires the alternatives analysis include the alternative of “no action (or status quo).” In other words, examine the environmental consequences of what is already happening at the site of the proposed action, which will be additive to the potential effects of the action alternative? There are two distinct interpretations of "no action" that must be considered, depending on the nature of the proposal being evaluated. The first situation might involve an action such as updating an existing management plan [such as a military Integrated Natural Resources Management Plan (INRMP)], where ongoing programs initiated under existing legislation and regulations will continue, even

as new plans are developed. In these cases "no action" equals "no change" and consists of continuing on with day-to-day operations, even as the plans are under revision (as is required, for example, under the Sikes Act, which requires the military complete, utilize, and update their INRMP every five years)[7]. The second interpretation of "no action" is illustrated in instances involving Federal decisions on proposals for projects. "No action" in such cases would mean the proposed activity would not take place, and the resulting environmental effects would be compared to those of the action alternatives, where the proposed activity would proceed as envisioned.

In light of the above, it is always appropriate to address a "no action" alternative. Accordingly, the regulations require the analysis of the no action alternative even if the agency is under a court order or legislative command to act. This analysis provides a benchmark, enabling decision-makers to compare the magnitude of environmental effects of the action alternatives. It is also an example of a reasonable alternative outside the jurisdiction of the agency which must be analyzed. Inclusion of such an analysis in the EA/EIS is necessary to inform the Congress, the public, and the President as intended by NEPA[8].

A good example of what can happen without inclusion of a clear, concise, and realistic No Action alternative is found in the case of the Yucca Mountain project, the site officially designated to store the nation's spent fuel and high-level radioactive waste. In 1999, the Department of Energy (DOE) prepared and published a Draft EIS for the creation of a “Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain (DOE, 1999). Strong opposition to the construction of this repository came from several outlets, most notable the Eureka County Board of County Commissioners, who labeled the DEIS deficient in many areas, starting with the definition and scope of the no action alternatives and conclusions gathered from its analysis.

> *“The DEIS must include a realistic no action alternative. The DEIS says repeatedly that the no-action scenarios are unlikely and unreasonable, yet it says they provide a baseline for comparison … Before the DEIS even describes the proposed action, the environment that would be affected, or the anticipated environmental impacts, it concludes that "environmental impacts do not appear to be a major factor in the selection of transportation mode, route, or corridor in Nevada for incoming rail shipments. Such a conclusion is inappropriate under*

the description of the proposed action and no-action alternative and, in any event, is unsupported by any evidence and therefore conclusory … Although the DEIS says that the same spectrum of environmental impacts was considered for the no-action alternative as for the proposed action, it also says (in the same paragraph) that DOE decided to focus the no-action analysis on the health and safety of workers and members of the public. This limitation on the scope of the no-action analysis is inappropriate. It rules out any meaningful comparison with the impacts of the proposed action[9]*."*

Thus, it is imperative to spend the appropriate amount of time fully and adequately developing the scope of the no action alternative and to remember that "no action" does not mean "nothing at all will happen." The actions already occurring on site, such as duties associated with land management activities or routine repairs and maintenance (such as application of pesticides or minor facility repairs), agricultural or commercial actions (plowing fields or rinsing field vehicles), and other such mundane, day-to-day actions will continue under the no action alternative. Therefore, the first task in defining the no action alternative is to visit the site, take notes on what is happening, research present activities not immediately apparent, and determine what effects to the environment are already happening as a result. This will not only serve as the no action alternative, but as the baseline against which to compare the effects of the action alternatives.

B. Action Alternatives (Reasonable v. Feasible)

Under NEPA, it is the duty of the Federal agency to develop and analyze all reasonable alternatives to the proposed action[10]. The agency does not have to look at every conceivable alternative, only those reasonable ones that will meet the purpose and need for the proposed action. Likewise, an agency may conduct a preliminary analysis of some alternatives originally proposed and eliminate them from further discussion in the EA/EIS if they are non-feasible. An agency's consideration of alternatives is adequate 'if it considers an appropriate range of alternatives, even if it does not consider every available alternative,' as evidenced below in the case of *Headwaters, Inc. v. Bureau of Land Management*, (9th Cir. 1990). [11]

"The environmental plaintiffs contend that the district court erred in concluding that the federal defendants considered a reasonable range of alternatives for

managing old growth owl habitat. Our review of the record leads us to conclude that the federal defendants fully evaluated a reasonable range of alternatives before making their final decision. An agency is under no obligation to consider every possible alternative to a proposed action, nor must it consider alternatives that are unlikely to be implemented or those inconsistent with its basic policy objectives. Here, the federal defendants did consider a no harvest alternative as part of their preliminary discussion, but abandoned this alternative as inconsistent with their need to find a balance between competing uses. Moreover, the federal defendants' consideration of Alternative 1, which would have protected all old growth timber (less some salvage operations) provided a reasonable point of comparison for the other nine alternatives. Accordingly, the analysis performed by the federal defendants was adequate."

Failure to include all reasonable alternatives, however, may leave an agency not only with a deficient EIS, it will leave them subject to censure by the courts of law. A particularly instructive case is *Friends of the Bitterroot, Inc. v. U.S. Forest Service* (D. Mt. 1994). There, even though the Forest Service identified and considered seven alternatives in its EIS, the court held that the Forest Service failed to comply with NEPA because it failed to consider an additional alternative, namely an alternative to protect a roadless areas[12]. The agency claimed that such an alternative would not further the purposes of the proposed action, but the court disagreed and issued a restraining order (while reviewing the case) and eventually an injunction to halt all actions until the Service could show it had "complied with the rule of law." The court held:

"In Count II of their complaint, as amended, plaintiffs contend the Trail Creek EIS fails to adequately analyze all reasonable alternatives, including a less environmentally damaging alternative that would exclude logging and road building activity in existing roadless areas within the Beaverhead National Forest. Plaintiffs maintain the EIS should have addressed an alternative exempting the Beaver Lakes roadless area from the timber sale in order to preserve that area's value as secure wildlife habitat. In response, defendants assert the alternative would not have met the management goals, standards, and objectives of the Beaverhead National Forest Plan. Defendants further maintain the development of such an alternative would not have added any new information to the EIS."

During the notice and comment period for another EIS, the Louisiana Crawfish Producers Association (LCPA) suggested an alternative plan for Buffalo Cove; specifically, that the Corps both open up the historical bayous and enforce the permit requirements for pipelines. This alternative was not addressed in the EA written by the Corps and the Corps did not amend or supplement the EA to include a full analysis of this suggested new alternative (see below[13]).

> *"From 1999 to 2003 the U.S Army Corps of Engineers (Corps) conducted an EA on the Buffalo Cove Management Unit. The goal of the project, as described in the EA, was "to improve interior circulation within the swamp; remove barriers to facilitate north to south flow; provide input of oxygenated, low temperature river water; and prevent or manage sediment input into the interior swamps." These objectives would be accomplished through "a series of closures and sediment traps (to prevent sediment influx), constructed inputs for river water, and gaps placed in existing embankments."*

The LCPA then brought suit in the district court, seeking an injunction of the project, arguing that the Corps had disregarded its suggested alternative and that the Finding of No Significant Impact (FNSI) was in error. The Corps moved for summary judgment. The district court issued its ruling from the bench, granting summary judgment to the Corps and denying the LCPA's motion for summary judgment. The court held that "The agency, and not the court, has the discretion to choose from among sources of evidence, and an agency may rely on its own experts, so long as they are qualified and express a reasonable opinion." Thus, it was sufficient for the purposes of adhering to NEPA that the suggested alternative from the Louisiana Crawfish Producers Association was considered and noted, though not carried through for analysis for the proposed action[14].

> *"The Corps counters that this proposal was unreasonable and inconsistent with the goals of the Buffalo Cove project. Specifically, the Corps states that the proposal by the LCPA is both impracticable and would result in increased sedimentation, as opposed to the reduction in sedimentation intended by the project. The LCPA has provided no case law that supports its contention that the Corps was required to consider and reject its proposed alternative in the EA. Although the relevant regulation does mandate the discussion of alternatives, the regulation does not require that all proposed alternatives, no matter their merit, be discussed in the EA."*

In a similar case, Mississippi River Basin Alliance v. Westphal, 5th Cir. 2000), the court likewise held that the Corps had adequately considered a range of alternatives and had not been arbitrary and capricious in rejecting the plaintiff's proposal at a preliminary stage[15].

> *"The court noted that the Corps had articulated reasons why the proposal was rejected in the early stages of analysis. Similarly, here, the Corps has briefed why the proposal was not accepted. The Corps explains that reopening the waterways suggested by the LCPA would result in "counterproductive sedimentation." The Corps notes further that the high water levels in the entire Atchafalaya River and Basin have changed, and therefore simply reopening historical bayous, without reverting back to the same historic high water levels, will result in excessive sedimentation. The administrative record also contains internal comments made on the letter proposal sent by the LCPA. Those comments indicate that the choice of where to introduce additional water flow into the Cove was carefully considered."*

The BitterRoot case also had an interesting deviation from "the norm" in that it ultimately chose as preferred an alternative not explored in the Draft EIS. By introducing a new alternative, and selecting it as preferred, in the Final EIS (and not the draft) the Service all but eliminated the potential for the public to fully and equally review a viable (and ultimately preferred) alternative during the Draft and Final EIS review and comment periods. The court agreed with the plaintiff in this case, as summed up below:

> *"The number of comments in the administrative process, over 4,000, show the case is unusual in both public interest and public participation. It is presumptuous to believe that the agency _s final decision has a perfection about it that would not be illuminated by interested comment, questioning, or requests for justification of propositions asserted in it. Congress wanted the opportunity for full democratic participation in Forest Service decision making when it created a statutory right to an administrative appeal. Neither the Secretary of Agriculture, the Undersecretary of Agriculture, nor the Forest Service, can take away a right the Congress granted or a process Congress demanded. For the reasons set forth below I am granting a Preliminary Injunction enjoining the Forest Service and the Secretary of Agriculture from implementing the project until they have*

complied with the law. The preliminary injunction does not bar the Forest Service from exercising any authority delegated to it by law under statute or regulation that complies with the Appeals Reform Act[16]*."*

Therefore, even though the Service incorporated public comments received on the original seven alternatives during the Draft EIS review period, it lost some credibility and its claims to having fully explored all alternatives, with full public review and comment.

C. Selection of the Preferred Alternative

The lead agency's official with line responsibility for preparing the EIS and assuring its adequacy is responsible for identifying the agency's preferred alternative. The NEPA regulations do not dictate which official in an agency shall be responsible for preparation of EISs, but agencies can identify this official in their implementing procedures. Even though the Federal agency determines their preferred alternative in the EIS, the statement must be objectively prepared and not slanted in order to avoid looking pre-decisional.

The agency's preferred alternative is the alternative the agency believes would best meet the purpose and need of the action proposed, giving consideration to economic, environmental, operational, and other factors. Section 1502.14(e) requires the section of the EIS on alternatives to "identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . ."[17]

The agency is also encouraged to identify the environmentally preferable alternative during EIS preparation. NEPA Section 1505.2(b) requires the agency to identify all alternatives that were considered, including ". . . which were considered to be environmentally preferable."[18] The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources[19].

Sometimes, public and regulatory input influences the agency writing the EIS to actually switch its selection of which alternative is truly preferred. An example of this can be seen in the case of the Hanford Comprehensive Land-Use Plan EIS (DOE, 1999)[20].

"The DOE received more than 400 comment letters, 30 E-mails, and 86 transcript comments from four public hearings on the Revised Draft HRA-EIS. The DOE also accepted a binder with 922 endorsements for the Wild and Scenic River (with the inclusion of a Wahluke Wildlife Refuge) that were collected for the Department of the Interior's Hanford Reach EIS in 1994. More than 200 request forms for farmland on the Wahluke Slope (also generated for the Hanford Reach EIS in 1994) were accepted in the same spirit. Based on the public comment received … changes have been made to the DOE's Preferred Alternative[21]."

Agencies are consistently challenged with developing a range of truly reasonable alternatives, in addition to selecting the "agency preferred" versus the "environmentally preferred," although they can sometimes be one and the same. Collaboration amongst all concerned, as indicated in the case above, is the best way to achieve the goal of alternative development.

III. Summary and Conclusions – The Heart of the Matter

So how best to sum this up? It's as simple as this: the alternative development portion of the EIS process is truly at the heart of the matter and is a process that continues to evolve and change, as NEPA practitioners work, learn, and collaborate towards improving the process as a whole.

In 2002, the CEQ formed a task force to review NEPA implementation practices and procedures and to determine opportunities to improve and modernize the process. The CEQ Task Force interviewed federal agencies; reviewed public comments, literature, and case studies; and spoke with individuals and representatives from state and local governments, tribes, and interest groups. In compiling its research, the CEQ Task Force received more than 739 stakeholder comments. In September 2003, the CEQ Task Force released an in-depth report of its findings and recommendations, several of which are detailed below[22].

- Agencies can use a number of methods and approaches to enhance collaboration when developing viable alternatives, such as:
- Public workshops to discuss draft alternatives and how they can be improved.

- Working with cooperating agencies to identify and refine alternatives.
- Working with advisory committees or other existing stakeholder groups to identify and refine alternatives.
- Working with groups organized by others (e.g., Chambers of Commerce, League of Women Voters) to identify and refine alternatives.
- Meeting with stakeholder groups or nongovernmental organizations to discuss draft alternatives and how they can be improved.

Using these methods, those developed within the agencies, and collaboration and brainstorming with colleagues will help ensure alternatives are clear, concise, and logical. This helps the public and regulators better understand the federal project, the reasoning process, and work to make the NEPA process – and its depth of alternatives development – continue to advance and grow.

Bibliography and Endnotes

[1] 42 United States Code (USC) Section 4321, The National Environmental Policy Act (NEPA) of 1969, as amended (Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, § 4(b), Sept. 13, 1982).

[2] 40 CFR Pts. 1500-1508, Council on Environmental Quality Regulations for Implementing NEPA, 43 FR 55992, Nov. 29, 1978.

[3] 32 CFR Part 651, Environmental Analysis of Army Actions, March 2002.

[4] Environmental Protection Agency (EPA), EPA Compliance with NEPA website, accessed May 1, 2009. (http://epa.gov/enforcement/nepa/epacompliance),

[5] 40 C.F.R. §1502.14; Council on Environmental Quality Regulations for Implementing NEPA, 43 FR 55992, Nov. 29, 1978.

[6] 40 C.F.R. § 1502.14; see also 42 U.S.C. § 4332(2)(E); 40 C.F.R. §§ 1507.2(d) and 1508.9(b); Council on Environmental Quality Regulations for Implementing NEPA, 43 FR 55992, Nov. 29, 1978.

[7] Sikes Act (16 USC 670a-670o, 74 Stat. 1052), as amended, Public Law 86-797, approved September 15, 1960.

[8] 40 C.F.R. §1502.14; Council on Environmental Quality Regulations for Implementing NEPA, 43 FR 55992, Nov. 29, 1978.

[9] Board of County Commissioners, Eureka County, Nevada, comments to Department of Energy on the Draft Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada, February 28, 2000.

[10] 42 United States Code (USC) Section 4321, The National Environmental Policy Act (NEPA) of 1969, as amended (Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, § 4(b), Sept. 13, 1982).

[11] *Headwaters, Inc. v. Bureau of Land Management,* 914 F. 2d 1174, 1180-81 (9th Cir. 1990).

[12] *Friends of the Bitterroot, Inc. v. U.S. Forest Serv.*, No. CV-90-76-BU, 25 E.L.R. 21186 (D. Mt. 1994).

[13] Louisiana Crawfish Producer's Association (LCPA) West v. Peter J. Rowen, Colonel, U S Army, Corps of Engineers, New Orleans District, and Francis J. Harvey, Secretary of the U S Department of the Army, United States Court of Appeals (5th Cir. 2006).

[14] Ibid

[15] Mississippi River Basin Alliance v. Westphal, 230 F.3d 170 (5th Cir. 2000)

[16] *Friends of the Bitterroot, Inc. v. U.S. Forest Serv.*, No. CV-90-76-BU, 25 E.L.R. 21186 (D. Mt. 1994).

[17] NEPA's Forty Most Asked Questions, CEQ, Memorandum to agencies, This memorandum was published in the Federal Register and appears at 46 Fed. Reg. 18026 (1981).

[18] Ibid

[19] Ibid

[20] Department of Energy, Final Hanford Comprehensive land-Use Plan EIS, Hanford Site, Richland, Washington, September 1999.

[21] Ibid

[22] CEQ Task Force Report, accessed April 15, 2009, (http://ceq.hss.doe.gov/ntf/).