Comparing NEPA Processes Across Federal Land Management Agencies

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LIST OF ACRONYMS

BLM	Bureau of Land Management
CEQ	Council on Environmental Quality
DEIS	Draft Environmental Impact Statement
EA	Environmental Assessment
EIS	Environmental Impact Statement
FONSI	Finding of No Significant Impact
FS	USDA Forest Service
FWS	U.S. Fish and Wildlife Service
ID team	Interdisciplinary team
MOU	Memorandum of Understanding
NEPA	The National Environmental Policy Act
NOI	Notice of Intent
NPS	National Park Service
ROD	Record of Decision
USACE	U.S. Army Corps of Engineers

CHAPTER 1

1.1 INTRODUCTION

Agencies that manage land or water vary in the ways they make decisions and navigate the processes mandated by the National Environmental Policy Act (NEPA) of 1969. This study compares the NEPA processes of four federal land management agencies: the USDA Forest Service, the National Park Service, the Bureau of Land Management, and the U.S. Army Corps of Engineers. We set out to addresses the following key questions:

- How do different agencies define success within their NEPA processes?
- What lessons for enhancing agency performance in NEPA processes might be applicable between and across agencies?
- What do agency personnel consider to be the primary strengths and weaknesses of their processes?

While our methods included extensive review of agency documents, grey literature, and peer-reviewed articles, the results presented herein were generated primarily through interviews with agency personnel involved in NEPA processes. These interviews provided us a window into not only the mechanics of agency NEPA processes, but also varying perceptions regarding these processes held by agency decision-makers, interdisciplinary (ID) team members, and NEPA coordinators. While we set out with a specific set of categories of data to explore, we employed a primarily inductive method, allowing key themes to emerge from the documents and interviews themselves. This exploratory approach has allowed us to uncover what we believe to be many of the most salient issues on the minds of those most deeply involved in NEPA implementation in each agency.

We consider this report a preliminary effort, which has generated as many questions as it has answered. The study has uncovered both specific strategies that may be worth importing on trial bases across agencies as well as deeper uncertainties whose further investigation could reveal the specific impacts of different practices upon the outcomes of NEPA processes. As such, the value of the study lies not only in identifying valued practices of different agencies, but perhaps more so in identifying the right questions to be asking to begin to be able to truly move NEPA implementation into the 21st century.

This report is laid out in four sections: introduction, methods, results, and discussion. The introduction lays out the aims and scope of the project. The methods section provides detail on how we collected the data. The results section is presented in sections corresponding to key topics related the NEPA processes of the agencies. Under each heading, data from all agencies are shared to highlight practices that have been particularly valued by respondents as well as those that represent key stumbling blocks. Attention is also drawn to issues that this preliminary effort was unable to resolve in its limited scope. The discussion section summarizes the themes presented in the results section and puts forth recommendations for further investigations that could move toward resolving the unknown effects of different factors upon NEPA outcomes.

CHAPTER 2

2.1 METHODS

Our study progressed in four distinct stages, with each stage building upon the preceding stage. Our intent was to progressively increase the resolution of the study, from broader agency-wide mandates, to perceptions of personnel in specific NEPA implementation situations. We carried out two sets of document reviews, including reviews of agency guidance documents and reviews of peer-reviewed and gray literature on NEPA. These reviews were followed by two sets of interviews: the first with the chief NEPA compliance officers of each agency and the second with NEPA practitioners in the field in selected case studies.

Unique treatment of the U.S. Army Corps of Engineers

We set out to complete a cross-agency comparison between the Forest Service, the Bureau of Land Management, the National Park Service, and the Army Corps of Engineers, that would approach analysis of each agency in the same way. It became apparent early in our process, however, that the Army Corps was an outlier in the study, differing in fundamental ways from the remainder of the agencies. The scope of its projects commonly dwarfed the projects of the other agencies. Yet, the agency commonly uses less intensive forms of NEPA analyses on those same projects. For example, the Army Corps has conducted a $90 million project with an EA. Army Corps respondents also described their NEPA processes as fundamentally related to obtaining Congressional approval of agency projects, with the Record of Decision dependent on Congressional decisions. Furthermore, the Army Corps does not independently propose any management actions, but rather responds to requests from 3rd party sponsors. The sponsor, typically another government entity with taxation or condemnation powers, is partially responsible for project costs and often for the NEPA process as well. Finally, public perceptions of Army Corps projects may be fundamentally different than other agencies due to the nature of its projects (e.g. dams, navigation, and flood control). These projects may be perceived as more critical or necessary than harvesting timber from public lands or closing a recreational trail. This public perception of need may insulate the Corps to some degree from much of the conflict that so often plagues other public land managers. At the very least, it changes the nature of that conflict. Rather than calling into question an entire project, the means for accomplishing project goals are more commonly the subjects of debate. In order to provide results most useful to the other agencies, in particular our sponsor, we approached the Army Corps differently in this study, particularly when selecting case studies.

Agency document review

In order to establish baseline information about the legal and policy requirements facing each agency, we carried out a document review that included the Act itself, its implementing regulations (CEQ), any applicable agency regulations, and any guidance or other internal agency documents that provided direction on NEPA implementation.[1] This phase was primarily designed to guide the development of the interview scripts for the last two phases of the project. We compared agency requirements in the following categories: *class of action that trigger EIS/EA, use of categorical exclusion, emergency action provisions, development of alternatives, finding of no significant impact (FONSI), staffing and division labor, budget allocations, monitoring and evaluation of mitigation, social/cultural/economic analyses, environmental analyses, decision implementation, guidance, scoping, public involvement, commenting procedure, document format, interagency coordination, tiering/programmatic documents,* and *supplementals.* It became apparent after beginning the interviews, however, that what was occurring in NEPA implementation did not often comport with the technical descriptions of the documents. We thus shifted our analytical emphasis to the interview materials. As a result, this report focuses primarily on the results of our interviews, rather than our document reviews, as this best reflected what actually was taking place within each agency. Guidance documents and other literature are cited when they add additional context or information not available from our interview data.

[1] Only agency-wide documents were reviewed. No additional guidance documents available at the regional or local level were obtained in this effort.

Literature review

We carried out a review of NEPA-related literature in both peer-reviewed sources and in grey literature sources (e.g. books, monographs, task force reports). Again, this phase was in anticipation of the last two phases of the project, and was designed to uncover research that had been done (or not done) on NEPA implementation, particularly in the realm of natural resource management agencies. The results of this review also helped identify the most common themes of interest to other NEPA scholars. This helped to inform the types of data we sought. Both the document and literature reviews contributed to the development of our research protocol and to our interview scripts.

Washington, DC interviews

In order to better understand overall agency approaches, and to gauge the perceptions of NEPA in the Washington offices, we conducted interviews with the chief NEPA compliance officer of each of the four agencies in October 2006. Interviews were semi-structured, ensuring our coverage of common key themes in each while allowing for explanations and elaborations as well as for unanticipated themes to emerge. The Washington office interviews were also used as a means for identifying potential case studies.

Project case studies

We selected three case studies each in the Forest Service, Bureau of Land Management, and National Park Service in which EISs and RODs had been completed within the past three years. In December 2006 and January 2007, we interviewed the ID team leader and decision-maker on every project. When the opportunity arose, we also included interviews with other personnel familiar with the project, such as the land use planner. We also interviewed regional NEPA coordinators knowledgeable about each project when possible. In order to maximize the potential for meaningful comparisons across agencies, we sought one project of each type within each agency:

- Recreation-related project
- Restoration/fire
- Extractive or other traditional active management (construction, harvest, facilities development, grazing, minerals, etc.)

Our interviews covered nine (9) individual projects in fours regions: the Pacific Northwest, the West Coast, the Southeast, and the Inland Rocky Mountains. The projects specifically included:

- An access designation plan (Forest Service)
- A Healthy Forests Restoration Act project (Forest Service)
- A “traditional” timber sale project (Forest Service)
- A fire management plan (National Park Service)
- A non-native wildlife management plan (National Park Service)
- A national park capital repair project (National Park Service)
- A recreation area management plan (Bureau of Land Management)
- A forest restoration plan (Bureau of Land Management)
- A post-fire salvage project (Bureau of Land Management)

Table 2.1 shares the timing of each of the projects. Respondents were able to estimate planning costs (or they were available in project documentation) on four of the projects. In each case, costs were estimated to be approximately $1 million. Of the nine individual projects, three had been or were currently being litigated.

Table 2.1. Case study project timing.

Project	ROD	NOI to ROD	Planning to ROD
NPS Non-native Wildlife Mgmt	2007	4 yrs, 9 mos.	5+ yrs
NPS Fire Mgt Plan	2006	2 yrs, 6 mos.	4+ yrs
NPS Capital Repair Project	2003	3 yrs, 5 mos.	3+ yrs
USFS OHV Access Designation	2005	1 yr, 6 mos.	6 yrs, 1 mo.
USFS Healthy Forests Restoration Act	2006	1 yr, 4 mos.	3+ yrs
USFS "Traditional" Timber Sale	2005	3 yrs, 3 mos.	11+ yrs
BLM Post-fire Salvage Project	2004	1 yr, 2 mos.	1.5 yrs +/-
BLM Recreation Area Plan	2004	10 yrs, 9 mos.	13+ yrs
BLM Forest Restoration Project	2004	1 yr, 9 mos.	4+ yrs

Rather than selecting specific case studies in the Army Corps of Engineers, we conducted one additional interview with a regional NEPA coordinator in the Southeast who had been intimately involved with dozens of NEPA processes that had been conducted in that region. This interview was geared toward seeking out elements of the Army Corps NEPA process that might be directly comparable and/or transferable to the other agencies.

Prior to conducting each case study interview, we reviewed the final EISs and RODs associated with each project to guide our interviews and to familiarize ourselves with project details and the NEPA processes used in each case. The interview scripts are included in Appendix A. All interviews were transcribed in NVivo 7 software and qualitatively coded by the research team. We have declined to provide more information on the project names, specific locations, and personnel to ensure the confidentiality of our respondents.

Caveats

In total, we interviewed 25 respondents (Forest Service: 8; National Park Service: 6, Bureau of Land Management: 9; Army Corps of Engineers: 2) and examined in-depth only nine specific NEPA processes. Readers should keep this in mind when reading this report and attempting to draw conclusions. The percentages we report here in various tables can only be construed as generally indicative of the responses we received, and cannot be interpreted as representative of the agencies at-large. So too, our more qualitative findings reflect only the perceptions of the personnel we interviewed.

This research was designed primarily as a pilot study geared toward illuminating key issues of importance in agency NEPA implementation. The wide variety of responses obtained in our small sample suggests that alternative explanations are likely to exist outside of those presented herein. Our review of the literature, our conversations with other NEPA scholars and other agency personnel, and our own personal experiences suggest, however, that our results reflect a large portion of the concerns of a much broader population about NEPA. Thus, while the results cannot be taken to be representative of any particular agency, the research appears to have accomplished its goal of identifying the right questions to be asking to be able to move toward a deeper understanding of the challenges faced by those in charge of NEPA compliance within their agencies.

In summary, we caution against using the results of this study to make sweeping claims about how NEPA processes work (or do not work) within any of the agencies studied herein or for any other purpose beyond the study's exploratory intent.

CHAPTER 3

3.1 RESULTS

Introduction

While our original intention was to compare and contrast the NEPA processes of the four agencies, we quickly came to the realization that our limited sample size would preclude our abilities to make generalizations about how each agency complies with NEPA. Variation within each agency was no less substantial than variation across the agencies. In fact, our results revealed that there were actually far more similarities across agencies, particularly with regard to common stumbling blocks, than differences.[1] Therefore, the results presented herein are organized by theme, rather than by agency. Where clear distinctions can be made between the agencies, we have drawn attention to these differences. In other cases, specific agencies are not identified, as the findings apply similarly across multiple agencies. We use this format to draw out common trends hindering effective NEPA implementation, practices or innovations commonly valued by respondents, and differing viewpoints amongst our respondents. While our interviews key on numerous issues (see Appendix A), only those that emerged as particularly fruitful pathways of inquiry are presented here.

[1] The USACE presents an exception to this rule (see Methods section for greater detail).

3.2 THE PURPOSE OF NEPA

What is the purpose of NEPA?

The stated purpose of the National Environmental Policy Act of 1969 (NEPA) is four-fold:

> *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.* (Pub. L. 91-190, 42 U.S.C. 4321)

While the establishment of the Council on Environmental Quality (CEQ) is outside the realm of control of agency personnel, NEPA implementers within each agency can have direct impacts upon the NEPA goals associated with improved quality of life, improved environmental quality, and improved understanding of valued natural resources.

What do agency personnel perceive to be the purpose of the NEPA process?

Table 3.2.1 summarizes respondents' reported opinions about the purpose of going through the NEPA process. The numbers in parentheses indicate the number of respondents in each agency answering the question. Most respondents noted more than one purpose of the NEPA process. Some actually contradicted themselves in the process,[1] suggesting a lack of clarity in NEPA's actual purpose. All reported purposes are included in the table below.

Table 3.2.1. Agency personnel perceptions of the purpose of the NEPA process.[2]

Perceived purpose	NPS (5)	FS (8)	BLM (9)	ACE (1)	Total	Percentage
Disclosure	4	3	3	1	11	48%
Public involvement (beyond disclosure)	4	3	3	0	10	43%
Ensure deeper consideration of environment	2	3	2	1	8	35%
To make beter decisions	2	3	2	0	7	30%
Necessary procedure	1	2	1	1	5	22%
Expand consideration of alternatives	2	2	0	0	4	17%
Internal communications tool	3	1	0	0	4	17%
Protection from litigation	1	1	1	0	3	13%

[1] One respondent shifted from saying that NEPA has little to do with decision-making to later suggesting it actually can lead to better decisions. Another suggested that the pupose of NEPA was to involve the public in decision-making, only to later state that the public has no real influences over decisions made in the process.
[2] These figures do not reflect a representative sample of any agency.

The most common response was that the purpose of NEPA processes is to disclose to the public and other interested parties the likely consequences of agency actions, the analyses undertaken to determine those consequences, and the procedures through which NEPA requirements have been met. Ten respondents went a step further to suggest that the purpose of the NEPA process is to actively involve the public. This involvement ranged from soliciting public opinions and ideas to actively engaging the public in the development of alternatives.

> "It's basically the sunshine law."

> "It's to engage the public in government decision making."

> "I think what NEPA adds or causes is there is a potential for public belief in the process, because at least for us, the sequence of newsletters and the series of public meetings that'll happen to vet alternatives and so forth, I think that creates a body of evidence that people can look at and see that they, their wild ideas were considered, or what have you."

One-third of respondents suggested that the purpose of NEPA processes is to ensure deeper consideration of environmental impacts than might otherwise be considered. Only seven respondents reported the purpose of the NEPA process to be about making better decisions. Some respondents specifically discounted this purpose, explaining that NEPA has not had any real impact upon making more environmentally appropriate decisions.

> "I think since it is public land and it belongs to the people, there has to be some kind of analysis done to make sure that the project is done in an environmentally safe manner."

> "Did we make a better decision because of NEPA? I would say that no, but that's because of this park, this superintendent. . .". Interviewer: So in other places, maybe. In other agencies, maybe it does? "I think definitely, yeah. And I'm not just tooting our horn, I mean, I just think that this is just an incredibly resource-oriented park, so we do things that, we don't need NEPA to keep us in line, basically."

Five respondents suggested the purpose of the NEPA process was simply to jump through a bureaucratic hoop required by law, with three more reporting the purpose to be to avoid litigation or to emerge victorious in court.

> "Well, the purpose of the NEPA process is twofold. First of all, everything we do has to be funded, and it has to be funded by Congress. If it's not something that's already foreseen, if it's not utterly routine work, any new work that the Corps does starting in about 1996 onward, as I understand it, has to be cost-shared with a local sponsor. And in order to get the federal share of that cost appropriated, we will not get an appropriation until we have gone through our own headquarters and OMB review process, and part of that is making sure that we comply with the National Environmental Policy Act. So NEPA compliance is part of the approval process which has to precede the appropriations process . . . And the other is to get a project approved by our own headquarters. I mean, we see compliance with NEPA as merely part of the project development, project approval process."

> "I guess what it adds is just . . . CYA I guess, because you've got everything covered, you know, because it's a law that you have to abide by."

> "I think in our case we will prevail because of NEPA. Because we followed NEPA. So I think it ends up being a tool for us. And litigation's not going to go away, whether or not NEPA goes away. So I mean, I think that for us, it will be useful in the future to have this document when we're sued."

Other identified purposes included expanding the number of alternatives under consideration and the use of the process as a tool to communicate issues and rationales for decisions internally within agency staff. This latter purpose was cited with regard to building consensus and educating staff through collaboration on creating the EIS, or "working together and identifying common or shared places where we can do work together." Others cited the EIS, or more commonly the ROD, as a useful internal communications tool to guide future actions and provide baseline data.

> "You can take a document, a decision document such like a decision memo or FONSI and you can lay that out and give it to the people that's going to implement the project on the ground and let them read that, along with any other associated things, and that's the way you'd get the project done in the correct manner."

> "The purpose of the NEPA process is to document and disclose the environmental impacts of the actions we're considering undertaking. And it, as a result it helps us, it forces us to think through the various alternatives."

> "I think the purpose is to ensure that agencies look at every alternative, to alternative solutions, in order to resolve a problem that they don't skip the broad view in order to do what they'd like to do. And that the, all the impacts, whether beneficial or detrimental, of every proposed alternative, be weighed and that there be some sunshine on that, that they be evaluated by more than just that agency."

Purpose vs. Process

NEPA does not mandate specific decisions, but rather a set of general process requirements intended to achieve more environmentally appropriate outcomes. The procedures through which each of the above-identified purposes of NEPA might be addressed vary somewhat. Improved understanding may come about both through public and interagency coordination processes as well as through the documentation of all environmental analyses and predicted environmental consequences associated with agency proposals. With regard to the quality of life and environmental goals of NEPA, Lindstrom and Smith (2001) explain two potential mechanisms for their achievement: internal and external normative pressures. The first suggests that agencies may reform as a consequence of having to write down the impacts of their projects. Dreyfus and Ingram (1976: 254-5) further explain, "A proposal accompanied by an environmental horror story should carry a heavy handicap" in the decision-making process. The second suggests that agencies may choose more environmentally-friendly alternatives when faced with the external pressures brought to bear by those reviewing the document, including criticisms by other agencies, court challenges, and public opinion and protest. These pressures may further enhance the understanding of valued resources by promoting more thorough environmental analyses.

> "Well, I like to say you can pave over paradise with a NEPA document."

In reviewing respondents' explanations of the purposes of NEPA, we see a clear emphasis on process over outcome, particularly on public involvement. We also find disagreement on whether NEPA actually has meaningful impacts upon environmental outcomes. This was particularly common amongst Park Service respondents, some of whom felt that their mission generally mandates environmentally conservative actions anyway. In short, some agency personnel felt that complying with NEPA contributed little to the original intent of the Act, while others deemed it a valuable process through which decision-making is enhanced. Similar trends were found in our Army Corps interviews, where respondents felt that other planning requirements were "so much more extensive than the NEPA requirements."

"Doing paperwork for the sake of paperwork to fill in the blanks, it's just not, I don't think, what NEPA was ever meant to do."

"NEPA is really just a label for the planning and analysis that I think goes on anyway. But what it does if that's the case is imposes more rigor or process to the determination. But I don't, in my experience; I haven't seen any big initiatives that willy-nilly were decided by the manager."

"The NEPA process in my mind is an opportunity to present to the public and get public involvement in a decision-making, in a way of sort of displaying our thinking. This is what we think we want to do, this is what we know about the issue, and we want you to be, to participate in that process, and so it's sort of a public disclosure or a public participation document and in many cases an opportunity to put on paper and flesh out the range of alternatives. I personally do not see NEPA as a process to justify a pre-made decision. I much prefer to use NEPA as a process to get to a good decision. And in, as one of my old friends used to say, sunlight is the best disinfectant."

3.3 DEFINITIONS OF SUCCESS

How do agency personnel define success in the NEPA process?

Each respondent was asked how they defined a successful NEPA process. Content analysis of open-ended responses revealed twenty themes used by agency personnel to define success in the NEPA process. Table 3.3.1 shows the break-down of these categories by agency. The numbers in parentheses represent the number of respondents answering the question in each agency. It should be noted that many respondents would certainly have agreed with more of these themes if presented with a complete list. The most common responses largely fit into three categories: implementation, public involvement, and improving decisions.

Table 3.3.1. Indicators of a successful NEPA process reported by agency personnel.[1]

Indicator of success	FS (8)	NPS (6)	BLM (9)	ACE (2)	Total (25)	Percentage
Project get implemented	5	4	9	0	18	72%
Effective public involvement	4	3	4	2	13	52%
No litigation	3	1	3	0	7	28%
Public buy-in	0	2	3	1	6	24%
Good final decision	1	2	1	0	4	16%
Disclosure of environmental analysis	3	1	0	0	4	16%
Follows all procedures correctly	1	1	1	0	3	12%
No appeals	1	0	2	0	3	12%
Efficient process that does not last too long	0	2	0	0	2	8%
High quality scientific analysis	1	1	0	0	2	8%
Well-documented rationale for decision	0	1	0	0	1	4%
Agency's own proposal is output	0	1	0	0	1	4%
Compromise between interested parties	1	0	0	0	1	4%
Clear purpose	1	0	0	0	0	4%
Other agencies engaged	0	0	0	1	1	4%
Other agencies buy-in to final decision	0	0	0	1	1	4%
Readable document	0	0	0	1	1	4%
Outcomes achieve expectations	0	0	1	0	1	4%
Avoids being pre-decisional	0	0	1	0	1	4%

[1] These figures do not reflect a representative sample of any agency.

Implementation

Most respondents suggested that the primary measure of a successful NEPA process is the implementation of the preferred alternative. Litigation and appeals were brought up by some as indicators of unsuccessful NEPA processes, while others suggested that as long as the litigation was won or the appeal efficiently addressed, the process could still be seen as successful.

Public involvement

All but one respondent who suggested that effective public involvement is essential to successful NEPA processes specified that this meant two-way engagement between the agency and the public. About one-quarter of respondents suggested that public buy-in is critical to successful NEPA processes. Others suggested that only effective disclosure of environmental analyses and likely impacts is necessary for a process to be successful. Contrary to other agencies, no Forest Service personnel suggested that public buy-in indicated success, focusing instead upon a lack of litigation and/or appeals.

Improving decisions

Those defining success by the quality of the decision made at the end of the process generally defined better decisions as those satisfying their agency's mission and the purpose and need for the project. Only one referred directly to a decision that furthers the aspects of Section 101 of the Act, which relate to a productive harmony between man and nature. Only two respondents reported high quality scientific analysis as a prerequisite for a successful NEPA process, and only one suggested that monitoring should be required to actually measure whether a decision coming out of the NEPA process has actually achieved success.

Discussion: A means or an end?

Section 101 of the National Environmental Policy Act puts forth the intent of the legislation to influence in a positive way the environmental effects of the decisions made by federal agencies. As such, NEPA is a means to the end of a healthier environment. CEQ regulations confirm this sentiment (40 CFR Ch. 5 Sec. 1500.1c):

> *Ultimately, of course, it is not better documents but better decisions that count. NEPA's purpose is not to generate paperwork—even excellent paperwork—but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment*.

Thus, according to NEPA and associated regulations, ultimate success should be based on the quality of the decision made and its associated impacts on the environment. This implies high quality scientific analysis and careful consideration of the potential impacts of proposed actions. Section 102 of the Act and associated CEQ regulations discuss the procedures through which this purpose is to be met.

Only four of our study's respondents suggested that the quality of the decision actually mattered in gauging whether the NEPA process was successful or not. While more might agree with this statement if given the opportunity, it was not the most salient belief of respondents with regard to NEPA success.[2]

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[2] Psychological research (e.g., Ajzen et al. 1995) suggests that the most salient beliefs of respondents in similar studies to this are those that are most accessible in memory and thus most frequently and immediately reported by respondents.

Ajzen, I., A. J. Nichols and B. L. Driver 1995. Identifying salient beliefs about leisure activities: frequency of elicitation versus response latency. *Journal of Applied Social Psychology* 25(16):1391-1410.

Definitions of Success

The low saliency of high-quality decisions for most agency personnel when gauging success in the NEPA process suggests that the procedure may be becoming an end in itself, overshadowing the actual intent of NEPA. An alternative explanation would be that a good decision is implicit in the fact that it gets implemented; therefore, it went without saying. Our research suggests that the former is more likely the case. Our interviews revealed a powerful focus on process in relation to product.

> "It's a middle of the road thing, you know, we try and compromise no matter what, and I guess it just shows maybe that's just the process working, you know, You start somewhere, there's two extremes to any proposal or any type of management, and you know, we end up making a middle of the road thing . . ."

Others suggested that the NEPA process was entirely separate from the decision-making process or that one had no impact on the other whatsoever (see *Decision-making*). This reflects to some degree that the original purpose of NEPA may not be a particularly strong motivator for complying with the Act. Rather, staff interviewed in this study tended to focus more upon the processes through which they could complete the procedural requirements of the Act with least resistance. In effect, procedural aspects of NEPA (e.g., public involvement, disclosure, a bullet-proof process and/or document that can withstand litigation or appeals) have become ends in themselves. The following sections will provide additional data regarding this finding, and we will return to its significance in the final chapter of the report. How has a focus on NEPA's procedural elements influenced the achievement of its original intent?

3.4 DETERMINING THE APPROPRIATE NEPA PATHWAY

What do agency personnel perceive as the primary reasons for choosing which NEPA document/ process to employ?

Fundamentally, there is some ambiguity as to what level of analysis is appropriate in each case. The NEPA and the CEQ regulations supply only the sparsest information. We found conflicting trends within each agency with regard to whether there were trends toward particular document types. Most commonly EAs were preferred over EISs, though many factors contributed to deciding to develop an EIS. Table 3.4.1 shows which themes surfaced in which interviews. Most of our interviews suggested that legal concerns and degree of public controversy most powerfully dictated document decisions.

Table 3.4.1. Reasons for preparing an EIS.

Reasons for Preparing an EIS	NPS	FS	BLM	ACE
Litigation/Withstand Legal Challenges	X	X	X	X
Ability to Incur/Disclose Environmental Impacts		X	X	X
Inability to Tier to Plan/Programmatic			X	
Heightened Public Controversy	X			X

Threat of Litigation

Respondents in all agencies reported choosing to prepare EISs from the perception that an EIS is more defensible in court than an EA. There were subtle differences in this perception however, including the effect of advice received from agency legal counsel.

> "…if you have more than a 30% suspicion that if you try to go the EA route someone is going to stop you or threaten to sue, you're better to spend that extra 30 days, put your Notice of Intent out, circulate a draft EIS."

> "…the decision with sometimes doing an EIS is whether it's going to go to litigation or not, like I told you, and so that means that you're going to make sure you cover everything"

> "..it doesn't take from their [legal counsel's] perspective that much more work to do an EIS and the burden of proof on significance shifts. Under an EA the burden of proof is on us."

> "Our solicitors push us to, they would much prefer us to do an EIS because it's easier to defend in court."

Significant Environmental Effects

A number of interviewees noted that the EIS permits them to both incur and disclose significant environmental effects. The particular impacts of these sentiments on the aggressiveness of actual management practices could not be determined definitively in this study. However, our interviews suggest that EISs might occasionally be used to legitimize, or at least rationalize, greater environmental impacts.

> "…[an] EIS will acknowledge the impacts, we'll say yep, we've got them, we knew we could do that with an EIS."

> "We had no idea what the outcome was going to be, but with an EIS, you can have a significant effect. And we wanted to have a significant effect on the landscape."

> "If you really want me to have an EIS, then I'm going to go for the gusto and have some significant impacts."

Public Controversy

Agency personnel reported that a heightened level of public scrutiny or controversy can serve as a cause for drafting an EIS as opposed to an EA. Meanwhile, a lack of public interest can serve as a rationale for abandoning an EIS—even absent any other factors.

> **A:** "We've gone from an NOI to withdrawal of an NOI more than once. Usually it's when you put out a draft EIS and nobody comments."

> **Q:** "You just turn it into an EA?"

> **A:** "You have to put out a new notice saying that we're withdrawing the EIS, we're converting it to an EA, and we're going to sign a Finding of No Significant Impact due to total lack of public interest."

Relationship to programmatic NEPA documents

Respondents reported that an EIS can also be prepared in cases when tiering to a programmatic plan is infeasible, even though the project might otherwise only require an EA. This calls into question the utility of the programmatic EISs in many cases.

> "In the Forest Plan EIS there were some very general estimations … very gross numbers, and that's it. No analysis of the effect…none of what would be the adverse effects of doing that…so we really had nothing to tier to."

Reasons for opting for an EA: Mitigation of Effects

While one respondent in his agency's Washington, DC office suggested that the only reason to do an EA was to determine whether or not an EIS is necessary, no field personnel agreed with this sentiment. In those cases where the environmental effects could be mitigated and an EA prepared, respondents commonly reported opting for that technique. It was also notable that even though an EIS might provide the legal room to incur significant environmental effects, mitigation of those effects nonetheless may still occur. Respondents reported that mitigation was commonly used to prevent an EA from becoming an EIS. These responses commonly referred to such documents as a *mitigated EA*.

Q: "…[Y]ou're going to mitigate down to an EA? How often do you do that?"

A: "All the time."

A': "…I would say, we always have mitigated measures…If you can mitigate it down below that threshold of significance, what you think significance is, you can honestly have a finding of no significant impact."

A: "And even with some of our EISs, they're mitigated EISs, to be honest with you."

Q: "You…mentioned in your 20+ years of experience, you've never had an EA turn into an EIS."

A: "Never have."

Q: "So clearly, for you, the purpose of an EA is not to figure out whether to do an EIS."

A: "…What I've always done is that…if I decided I was going to do an EA, then that's what we did. And we just stuck with it."

Q: "And did you put mitigation factors into the EA,"

A: "Yes."

Q: "To make sure that you could say,"

A: "Yes, right."

Q: "Finding of no significant impact."

A: "Right. Exactly, exactly."

There was a general perception that the levels of analysis for both an EA and an EIS were about the same. This may relate to some commenters' perception that EAs are being "abused" and becoming too lengthy and cumbersome. Still, respondents reported a common practice of mitigating away significant effects to be able to use an EA. This was also a common practice to avoid having to report significant impacts in EISs. These observations raise questions of whether there is a perception that an EA is somehow 'easier' than an EIS, or that it requires less analysis or effort. While some personnel appear to believe that to be the case, others report that their EAs can be as lengthy as an EIS, and the work level is roughly equivalent. Even when respondents reported that an EIS permitted them to incur significant effects, there was nonetheless a pervasive desire to mitigate away those effects in order to sanitize the impacts of the proposed action.

Summary

Most respondents reported the general perception that if a FONSI cannot be reached, an EIS is required. However, other factors contributed toward developing EISs, even in cases where impacts could be mitigated away. Decisions regarding the appropriate NEPA pathway were most powerfully influenced by agency personnel's perceptions of the degree of public controversy and the likelihood of legal opposition.

3.5 DIVISION OF LABOR

How are teams put together to carry out the NEPA process?

Respondents from each agency suggested that the key factors in selecting ID team members were availability, subject matter expertise, and experience with and/or training in the NEPA process. The relative importance of these factors varied, however.

In the USACE, timelines and availability were cited as the most critical factors. Project managers send messages to division heads to solicit any available staff to work on a project. If personnel are not available, they may be drawn from other districts. "That team is going to consist of design engineers, hydraulic engineers, biologists, archeologists, planners, generic planners, probably some disciplines from the most likely local project sponsor." The requirement of a local sponsor for all USACE projects sets these NEPA processes apart from those of other agencies, as responsibilities for meeting NEPA requirements are shared between the agency and the local sponsor.

In the Forest Service, staff availability was the most commonly cited determinant for selecting ID team leaders, followed by experience in NEPA, then by subject matter expertise. Priority was always given to trying to find staff locally for ID teams, but personnel from regional offices and neighboring districts were often brought in when local staff were not available.

> "The formulation of the ID team, usually 90% of the time it's just the default of well, here's your biologist that's on the district and here's your district timber person and here's your district engineer and they're it, you know, time and time again, you rarely see a custom ID team put together specifically for a project, with maybe the exception of a Forest Plan."

One Forest Service decision-maker described the ideal ID team leader as:

> "Somebody that can bring these very disparate interests together and meet deadlines and interpret very science-based analyses into something that the public can understand. And so they've got to . . . be able to work very well both with the public and with other ID team members that may not have the same personality styles as they do, or abilities, and so I'm looking for somebody that can get things done, that can take pretty technical material and make it understandable, that can see problems coming and get the ranger and the supervisor engaged in those problems before, so we can get them resolved before they become a stumbling block or an issue in arriving at a decision and litigation."

In the Park Service, ID team leaders were typically chosen by the Superintendent or Deputy Superintendent of a park based first and foremost on subject matter expertise, though availability was of course a key factor as well. Common practice was to select one member from each division of a park for the ID team and then fill in gaps in subject matter expertise with additional team members. Park Service respondents suggested that ID team meetings were typically attended by 5-10 people at a time, though around 15 people could be working on an EIS at any given time.

In our BLM interviews, familiarity with NEPA, project management skills, and communication and interpersonal skills were all reported to commonly outweigh subject matter expertise, though the latter was also seen as important.

Both USACE and BLM respondents suggested that incorporating U.S. Fish and Wildlife Service personnel directly as ID team members helped to streamline NEPA processes. USACE in some cases actually pays to co-locate FWS employees within their offices for this purpose. Funds are transferred under the Fish and Wildlife Coordination Act.

What aspects of the process are centralized vs. decentralized?

While most of the work within the NEPA processes of these agencies takes place at the field level, different aspects of projects can be centralized within each agency. In the National Park Service, for example, the Denver Service Center commonly handles the coding of public comments on DEISs. Comments are sent to the Center where they are coded into categories and returned to park teams who then formulate responses. ID team leaders have shown variable levels of satisfaction with the results. In at least one case, they felt the need to recode the returned comments, canceling out any benefit of the centralized process (see *Public Involvement*). Similarly, the Forest Service's Salt Lake City Content Analysis Team can coordinate the analysis of large sets of public comments.

Writing may also be centralized within each of the agencies. In the National Park Service, entire EISs can be produced by the Denver Service Center. This is most common in cases where EISs have been court-ordered, are particularly complex, or when they are legislatively mandated and there is no funding at the park level. Service-wide programmatic EISs are also done by this office. The Denver team coordinates the entire process with input from managers at many steps along the way, particularly with regard to the gathering of raw data and other site-specific information, the development of alternatives, and public involvement. This tends to be more expensive than NEPA processes carried out by specific parks.

The BLM's Denver office also works on EISs. Rather than managing entire processes, they provide expertise in socioeconomic analysis to field offices. In the Forest Service, writing can be centralized at regional headquarters as well as the Washington office with editing and revising taking place at the district and forest level. Similar relationships were uncovered in USACE offices.

Internal review processes are also built in to each agency's NEPA process. Regional NEPA coordinators usually serve as the key internal reviewer. In the Park Service, these reviewers flag particular items of note for the decision-maker and a joint decision is made on the readiness of the document for circulation. USACE documents are reviewed by personnel at headquarters. Reviews by the State office in the BLM appeared the most cumbersome of any agency.

> "There were a lot of, well, it felt like a lot of people weighing in at the last minute about well, you didn't do this or you should have done that, or where is this? And none of those hurdles were made explicit before we had the document up for review."

> "Even though we were delegated the authority to prepare the EIS and we had approval on the Record of Decision, at, maybe not the 11th hour but maybe the 10th hour, the state office says, 'Oh, and we need to review it before you go out as a draft.' And it wasn't a little, mini- quick review, but it was a big thing involving staff that had never been involved with it before that. Contrary to popular opinion, the people at the state office aren't necessarily the experts, or the final word on stuff. And so you have people that were weighing in on NEPA things that don't know that much about NEPA. They have their preconceived ideas, but that's it. And so that was a pretty aggravating. Pretty darn aggravating."

> "So we were doing all our scoping in 2001, and the last field trip we did was on November 15, 2001. We didn't get the NOI into the Federal Register until October 9, 2002. So it took that long. Part of it, we had a change of administration. We were pretty sure that our briefing packet got put onto a, the desk of a political appointee who had no interest in it because it wasn't oil and gas."

How are contractors used in the NEPA process by the different agencies?

Contractors were used by each agency. The most common reported uses involved data gathering (conducting a specific piece of the analysis), reviewing and consolidating reports (editing, idenitfying inconsistencies or disconnects, helping with organization, and/or ensuring NEPA compliance), or writing entire NEPA documents. Contractors can also commonly be hired to coordinate public involvement. In USACE this would most commonly take place through planning the logistics of public involvement, while in other agencies contractors were employed to serve as more "objective" or "neutral" facilitators. One BLM respondent suggested that contractors were used in this sense primarily because they were better at publicity and ad procurement.

> "If you get a good contractor, they can do things that we can't do, like I can't avoid going to meetings and doing interviews, and having staff meetings and stuff, so that I almost never have a chance to actually write anything any more."

Common drawbacks to using contractors included high costs, misunderstandings or disagreements with agency staff, steep learning curves for complicated issues, lack of subject matter expertise, and difficulty with contract management. Because of the iterative nature of the NEPA process and its inherent unknowns, it can be difficult to lay out timelines and develop deliverables. Therefore, it can be difficult to control costs and to manage contracts. Some agency personnel did not think contractors were worth the effort, stating that since they would have to review all of their work anyway, they might just as well have done it themselves. Opinions of contractors as facilitators in public involvement processes varied. Some agency personnel were relieved to have the burden taken off them, while others found the processes "tedious" and of little to no value.

> "We've had a couple of contractors we weren't happy with, and it turned out they were in part getting paid on volume."

What are the key stumbling blocks regarding staffing for NEPA processes?

The most common complaints about the division of labor in NEPA processes had to do with the amount of personnel time required and turnover in positions on ID teams. Turnover in staff in particular created long delays as new members sometimes disagreed with prior decisions forcing steps back in the process. Commonly, certain disciplinary expertise would not be available to an ID team and budgets precluded hiring someone from the outside. The team would then be faced with a decision to carry forward without an expert in that field or wait until a particular staff member could find the time to contribute (see *Writing the EIS*).

> "You know, for me, it's basically taken 70% of my time for the past 3 years. So that's you know, collateral duty for me."

Other common problems included complaints about the internal review process (discussed above), problems with centralized coding of public comments (see *Public Involvement*), and disagreements within ID teams. Internal biases were cited in one interview as a major force driving NEPA process outcomes.

> "We are often our own worst enemies, our own biases, whether they're, you know, sort of social or professional, there's a lot of professional biases in the process. That's the one little loose end on this, you know. You get an ID team together, and boy, it's just like a little segment of society there, you know, and they can all be on the same page or not, or be able to control their biases or not, share their toys or not, and so that creates a lot of, it's a total wild card in the whole NEPA process, I think, is the internal interdisciplinary team."

> "At times the internal NEPA process, it comes down to who has the most stamina or has the most desire to have something be in or be out."

Which practices have been highly valued by process participants?

In one BLM process, the ID team was made up of staff dedicated entirely to that project alone. The ID team described their sequestration as something that worked very well, and that they wished to repeat. The budget on this project, recognized by the team as somewhat of a luxury, provided for team sequestration, two team co-leaders, a writer-editor, and a management liaison attached to the project that reported to the decision-maker. The process took only 14 months from the publication of the Notice of Intent (NOI) to the ROD, contrasted to an average of over three years on our other case studies. We must note, however, that even a sequestered team format that focused on only one project and its environmental analysis failed to immunize the project from subsequent litigation. The ID team leader and the decision-maker from another BLM project expressed a desire to experiment with the same methods but lacked the funding to do so.

> "Taking a dedicated ID team and taking them out of what their other work is, sitting them off-site, or just in a dedicated space where they don't have any other interference, can get the process moving faster, get the analysis done faster, get everybody working together as an ID team much more cleanly."

Our interviews also revealed great success in directly including a person from the Fish and Wildlife Service on the ID team. USACE respondents report that the co-location of an FWS staff member in their regional office has helped to streamline their processes considerably.

Involvement by decision-makers early and often in the process was also consistently seen as a positive by ID team leaders, helping to focus the process, ensure adequate staffing of the ID team, raise morale of those staff by validating the importance of the activity, and resolve conflicts or difficult questions as they arise.

The selection of a good ID team leader was also consistently seen as critical to process outcomes by decision-makers and others involved in the processes. The qualities most commonly cited as important for a successful ID team leader included being a good organizer, a good communicator, and a hard worker.

> "If you don't have a strong planning technical lead [the USACE equivalent term for ID team leader] . . . you wind up with a report that looks like a horse designed by a committee. You know, it's a camel instead of a horse."

3.6 INTERAGENCY COORDINATION

What are the biggest challenges in cooperating with other agencies in NEPA processes and what strategies have respondents found helpful in addressing them?

The CEQ regulations require that federal agencies must cooperate during the NEPA process in cases where the agencies share jurisdiction or have expertise particular to the project proposal. While all agencies recognized this obligation, each agency also reported a number of challenges in meeting the obligation. Some challenges were common to all agencies, while others were more unique, some mentioned by perhaps only one participant. Irrespective of frequency, each challenge, obstacle, and in some cases innovation, provides insight into how interagency coordination affects the NEPA process. Table 3.6.1 shows the commonly reported challenges associated with interagency coordination.

Table 3.6.1. Challenges to interagency coordination.

Challenges to Interagency Coordination	USFS	NPS	BLM	ACE
Various difficulties working with state/local governments	X	X	X	X
Different standards or thresholds		X	X	X
Lack of cooperative agreements/MOUs	X			X

Interagency NEPA Documents

Because land management projects may be at the watershed level or regional in scope, they may demand more than mere cooperation between agencies, and instead require interagency NEPA analysis and documentation. While we did not examine any such projects directly in this study, we did elicit a response suggesting that a deeper examination of interagency projects and documentation may be warranted:

> "…there's supposed to be an interagency EIS, but the Forest Service took the lead. And they formed a local ID team, they didn't sequester them completely, but when they went to publish the draft, the BLM didn't even get a review period of it, and neither did the state office or the regional office. And that was just unheard of to us at BLM, that the forest did not go after the support of the regional office…it was really hard for us, because we never even saw the draft until it hit the street, and it was supposed to be a cooperating agency relationship…I was fit to be tied, the district manager was fit to be tied, the state office was fit to be tied, but guess what? The [Forest Service] regional office never got to see it either."

The role of the U.S. Fish and Wildlife Service and other agencies

It was commonly reported that the role of the U.S. Fish and Wildlife Service (FWS) was an important component of project development and analysis. Experiences varied, however, as to whether the FWS relationship complemented the NEPA process or whether it impaired it. Some respondents were able to speak quite highly of their working relationships with the FWS.

> "We worked with Fish & Wildlife Service, Dept. of Environmental Quality, and the EPA. We had them out on a field trip before we have alternatives put together, and then we worked with them before the Record of Decision was published to finalize some of the mitigations and that sort of thing. That worked really well. Those folks were very, extremely helpful."
>
> "I think our consultation with Fish & Wildlife Service went very well. You know, we got very strong ties with them and I think even though they didn't like some of the things that we were probably, were going to try to do, we were able to mitigate very well."

Others reported that working with the FWS, particularly when T&E species were at issue in the project, was difficult at best:

> "I'd almost say the hardest part is dealing with the Fish & Wildlife Service. It's like there's, it's the place where there's almost no negotiation. You know, they have the say…"
>
> "I feel that something has been lost in the interpretation or determination of 'Likely to adversely effect.' They have made an interpretation that while using a motorized vehicle on the Forest roads and trails an individual could collide with a Florida scrub jay (an endangered species), thereby killing it. Therefore the proposed action will result in a Take. If this is true, then I see every project we do that involves driving, including driving to the project site, will result in a Take. This seems to be more that the Endangered Species Act intended. Otherwise, why even ask the question?"

It was also acknowledged, however, that problems with the FWS may stem more from the agency's workload that from some underlying antagonism:

> "I think the places where we had the most difficulty were getting Fish & Wildlife to review our stuff. They are, they're required, so they're required to do a whole review of it, and they're swamped with other compliance documents from other agencies."

One of our Washington office interviewees noted that even when projects affect the FWS' own lands, the agency still tends to behave in a consultative role, rather than in the role of a public land manager. The respondent appeared to indicate that this disconnect between a federal agency that perceives its sole role to be consultative or regulatory versus agencies that have management missions was a source of friction in carrying out interagency NEPA. In fairness however, conflict in fundamental agency missions was not limited to the FWS:

> A: "The biggest, the most difficult agency to deal with, and I don't want to say antagonistic cause they're not – the most difficult agency to work with has been the Everglades National Park,…because the park has really only one vision, and that's whatever is within the park boundaries…They're not difficult to deal with because we work with them on a daily basis, but our purpose is different."
>
> Q: "So what makes the Park Service so hard to deal with?"
>
> A: "It's the protectionist attitude, and the narrow vision. They wear blinders."

State and local governments

Because state and local governments routinely become involved as interested stakeholders—often by virtue of their localized expertise—they can also participate as cooperators. However, because local governments may have additional requirements for disclosure—such as state environmental policy acts or state freedom of information laws—the differences in such standards between the federal and the state/local governments was reported as a potential problem. Likewise, differences in perceived effects of a project, tolerance for risk, and requirements for mitigation all surfaced as points of contention in working with non-federal governments.

> Q: "Have you had any problems with inter-agency coordination? Anything that seems to be a common stumbling block when you need to bring in all these different agencies to work on this stuff?"
>
> A: "Occasionally with the Dept. of Environmental Protection…State Department of Environmental Protection. Water quality is issued by DEP as part of a larger permit, an environmental resources permit, and they feel that they can put all kinds of stuff in there that really isn't part of the 404 or 401 or 402 process. Now we're willing to consider anything they put in there, but sometimes we have to demur. We have to say well, we can do this, this, this, and this, but we really don't have funding to do this. And we just have to ask them to take into consideration that this is a public works project, not a mom and pop dock…"

Innovative cooperation

In several of our study sites, innovative approaches were reported, particularly approaches that tried to address friction between the management agencies and the FWS described earlier.

> Q: "How did having a Fish & Wildlife Service member of the ID team work out? Is that something that you think they'll do again…or was it a fiasco?"
>
> A: "It certainly wasn't a fiasco. I would certainly do it again. And I would like to have had someone from National Marine Fisheries Service also."
>
> "We have a Fish & Wildlife person co-located. We have an EPA person co-located, and we have a USGS _____ person co-located. They're all GS-13s and they all sit in various places on this floor. And they're resource people for us."

It does appear that funding may be an issue in providing opportunities for increased cooperation. One interviewee reported that a local national park was providing the funding for a Park Service project liaison to be located within another management agency as a means of addressing planning efforts and shortcutting conflicts. This more formalized cooperation appears to afford the NEPA process a mechanism to get at the mission conflicts mentioned earlier, as well as a method for providing much more intense cooperation than a mere MOU might confer:

> "_____ Park is paying for a liaison person to sit up here with us. He just…work[s] on brokering what goes on…brokering, communicating, hooking us up with the right counterpart in the park, answering specific park questions as directly as possible. It's his only job…I don't know whether the park is satisfied, but I'd say I'm pretty satisfied."

Summary

In general, having a member of another agency attached to an ID team or co-located seemed to facilitate project development. Meanwhile, local and state government presented common challenges to all agencies, brought about by differences in standards for disclosure, in perceived effects of a project, in tolerance for risk, and in requirements for mitigation. While we can begin to understand some of the agency challenges and solutions that interagency cooperation under the NEPA has spawned, this study has raised a great many questions about the relative effectiveness of MOUs, co-locating other agency personnel, the funding needs for cooperation, and how best to satisfy possibly incompatible missions of cooperating agencies.

3.7 ALTERNATIVES DEVELOPMENT

What influences how NEPA alternatives are fashioned and how a "reasonable range" of alternatives is chosen?

Our interviews revealed five key themes related to how alternatives are developed within the four agencies. Four of these themes regarded the roles of different entities or phenomena in the process, specifically the roles of the public, of the threat of litigation, of the ID team, and of political concerns. The final theme focuses upon the primary explanations for dropping alternatives from consideration.

The Public's Role

The public's role in alternatives development varied both between and within agencies on different projects. Most respondents described consistent concerns to ensure that alternatives reflected the public's input. In two cases, collaborative processes were used to create a project's first alternative. While these alternatives were not ultimately selected, in one case the public created the basic structure of the preferred alternative, which was a modification of the publicly-generated plan that included additional mitigation of environmental impacts and greater incorporation of safety concerns.

In other cases, however, alternatives were developed before the public was even involved in the NEPA process. While agency personnel reported that alternatives were later opened for modification by the public, some also reported that the basic structure of the alternatives was more or less set in stone with only minor details actually up for debate.

In most cases, the public appeared to exert substantial influence on the shape of the eventual alternatives. Some respondents acknowledged that even an apparently absurd alternative might, upon analysis, reveal valuable information to the ID team and the decision-maker and even work to forestall notions of pre-decisional-thinking.

> "One of our alternatives … I really don't believe it would have been there but for the public involvement. We had a lot of people say we like the idea of doing restoration in the ____. We just don't want you to do any timber harvests. We just want you to thin the stuff and leave it. Nothing commercial. And you know, most of us just rolled our eyes and said, 'Oh, that's ridiculous, we can't possibly do that.' And so, we said 'OK, we'll go through the process honestly and put up with his dumb idea.' Turned out the alternative was very feasible and was really quite reasonable and quite reasonably effective. It wasn't as effective as some of the other alternatives, but you know, at the start we would have just completely discarded it except that we had a lot of people clamoring for it."

> "I guess we could put it in, but it's really outrageous, there's no way this would be reasonable. And I guess we could carry it forward a little further, but it's obviously terrible. In the end, . . . that one was the one the decision-maker was having a hard time deciding, do I do this one, or do I select this other one? You know, as staff, the decision-maker says early in the NEPA process, I know which way I'm going with this. In most projects I've worked on I'd say, now don't be too sure of that. There are, I mean, we do this analysis for a purpose. We learn things. And if it's a good process and you've really developed a good range of alternatives, you should expect some surprises. We're certainly, we saw that in this alternative we thought that was outrageous and would be ineffective, in the beginning, turned out to be surprisingly effective. . .".

The Threat of Litigation

The threat of litigation often expanded the range of alternatives that might have otherwise been fully analyzed. In some cases, alternatives were analyzed even though all members of an ID team and the decision-maker were certain it would not be selected before any analysis took place.

> "Where was I headed with that? Headed to court. I felt like having another alternative that was more or less out of the box, outside of where we typically look at treatment options, different than how we typically would look at treatment options, would have a couple of strategic advantages to me if I selected one like that."

> "I know this is going to litigation. I can show Judge _____ that I gave very thoughtful consideration to that alternative. In fact, I did a complete analysis of it."

In other cases, alternatives were created specifically to make agency preferred alternatives appear more palatable.

> A: "We also thought that purely from a public relations point of view, if we didn't include it there would be a disproportionate outcry."

> Q: "So, one of the reasons for including those would be to have clear contrast to the ones that kind of did make more sense."

> A: "Right, and to also have a spectrum. We really wanted to go from least, the least amount of change to the most amount of change."

The Ideology of the Interdisciplinary (ID) Team

As one might expect, ID teams exerted influence on both how alternatives were shaped as well as how alternatives were presented to the decision-maker. While some believed that crafting alternatives on the extreme ends of the project's purpose and need was appropriate to demonstrate contrast with alternatives that "make more sense," other respondents felt that every alternative should be potentially selectable:

> "When we designed these alternatives we said, we don't want any straw alternatives. If it's going to be here we've got to design it so that it can be chosen, that it can be implemented on the ground. We worked really hard on that, we worked or at least sent that message out constantly to the public."

A number of respondents reported that ID teams have the tendency to artificially limit the decision-maker's options by how they sanitize alternatives prior to the project decision. There were concerns voiced by some decision-makers that ID teams can sometimes mitigate excessively and prematurely the potential alternatives before the decision-maker reviews them, thereby either coercing the decision-maker into a specific decision or to move backward in the process to re-examine alternatives.

> **A:** "What the ID team is doing within their process, it narrows the decision space for the decision maker unnecessarily, and probably inappropriately at times."

> **Q:** "Why do you say that?"

> **A:** "Because the options are supposed to be laid out for the decision maker…not mitigate them away and force the decision maker to a decision point."

> "I'd rather have the ID team just do the analysis on the range of alternatives, even though there are dirty ones. To me, it's a better disclosure to the public."

Some respondents suggested that ID teams can sometimes be seeking to present the decision-maker with the "perfect" or "silver-bullet" alternative, one that will satisfy the public, avoid excessive impacts, and will resist all legal challenges. The impacts of this phenomenon on decision-making are unclear.

> "We're trying to not mitigate, pre-mitigate, essentially trying to pre-mitigate all the alternatives down to one alternative that's already mitigated so there's no decision space by the decision maker. I'd rather have it, here's an alternative, here's an alternative, here's an alternative, here's the impacts, here's the impacts with this alternative. These are the impacts. Here's some mitigation measures that could be adopted to further reduce these impacts. That way the decision maker can mix and match when it comes to ROD time."

The Role of Politics

Decision-makers and ID team leaders alike are aware of the political forces that exert an influence on alternatives development and choice. Our study revealed two cases in which alternatives development was clearly influenced by political concerns. The full extent to which political influences on the NEPA process actually change NEPA outcomes remains largely unknown.

> "While the public largely supported it, the business community locally didn't. And they contacted their. . .Congressman who held a field hearing. . ., and he heard from the business community, and he ended up putting legislation in that got passed that redirected a million dollars to be spent on doing additional study and analysis."

> "If we didn't include it, there was a chance that a local politician or Senator or Congressperson would do what happened to Olympic National Park and just shut them down."

Deeming Alternatives "Unreasonable"

Eliminating alternatives within each agency as unreasonable is largely a discretionary action. Only the National Park Service provides specific written guidance for discarding alternatives as unreasonable, defining unreasonable alternatives as those that are "unreasonably expensive; that cannot be implemented for technical or logistical reasons; that do not meet park mandates; that are inconsistent with carefully considered, up-to-date park statements of purpose and significance or management objectives; or that have severe environmental impacts – although none of these factors automatically renders an alternative unreasonable" (NPS Director's Order 12 Handbook 2.7B). The last clause reveals that discretion is still largely at play in the Park Service as well. Several rationales were commonly noted as reasons for discarding an alternative as unreasonable or unacceptable. Table 3.7.1 shows the agencies in which different reasons were cited in our interviews.

Table 3.7.1. Explanations for discarding alternatives from analysis.

Defining an Unreasonable Alternative	FS	BLM	ACE	NPS
Drastic action or excessive environmental impacts		X	X	X
Cost	X	X	X	X
Unlawful or violative of policy/plan	X	X		
Does not meet purpose and need	X			X
Technological infeasibility	X		X	

Summary

Alternative development is characterized by distinct roles for the public, the ID teams, and the decision-makers, although there appears to be a great deal of discretion in how those pieces fit together in a particular NEPA project. It begs the question of whether such discretion can lead to arbitrary processes or capricious outcomes, and whether such discretion is ultimately desirable.

A fundamental question raised during the surveys concerned the audience alternatives were being developed for: the interested public, the decision-maker, the courts, or politicians? There is evidence to support a thesis that each of these exerts an influence on the process. It is important then to understand what effects these targets have on the nature of projects, on the scope of environmental impacts, and most importantly on meeting the goals of the NEPA. Where do the lines blur between each of these audiences? Can crafting alternatives that play to particular potentially undermine the purposes of the law and simultaneously create unnecessary hurdles for agency personnel?

Might there be alternatives to alternatives development?

Currently, the development of alternatives is an essential part of the NEPA process as described in the Act. However, some interviews revealed that this process in and of itself might be hindering implementation of the best possible decisions. It encourages different interest groups to select their preferred alternatives and stick to them, rather than considering a wider range of options that might be able to accommodate a greater set of interests while still satisfying the agency's purpose and need for action. When an individual or group's preferred action is not selected by the decision-maker, they can often feel as if they have lost and resort to litigation against the agency or other forms of protest as their only recourse for affecting the decision.

Several respondents questioned whether the use and development of discrete alternatives is inherently polarizing and counterproductive to any effort at consensus-building or public buy-in. Stakeholders' identification with one particular alternative can contribute to an unwillingness to collaborate:

> "From their perspective (the public's), they thought that this is a way that by golly, you get an alternative that is the right thing to do out there and a pro-action and that's it . . . you should pick our alternative. You shouldn't pick the environmentalists' alternative. In fact, you shouldn't even pick any alternative. I don't even know why we're doing this. You should have the action alternative that you proposed, or no action."

The Healthy Forests Restoration Act, in contrast, provides for increased collaboration with local communities in developing Community Wildfire Protection Plans that may go on to form the basis of project alternatives. In other cases, alternative models have been attempted in which a single collaborative recommendation has been made. While this study did not specifically examine such processes, we did ask some respondents about the possibility of a more collaborative model that results in a single recommendation, rather than a suite of alternatives. In general, responses were generally against the idea with the exception of the case of programmatic EISs. Respondents often felt that alternatives were rather contrived and meaningless at the programmatic level, leading to nebulous speculation about the potential environmental impacts of planning ideas. In these cases, respondents were hungry for a new approach that could eliminate this uncomfortable exercise and the additional work associated with it.

> "…the only environmental impact you get with a Forest Plan EIS is if it falls off the table and hits the floor…because it's just…it's 16 pounds of…stuff that is pure speculation…"

3.8 ANALYSES

How do agency personnel perceive and perform the analyses of the affected environment required under NEPA?

Respondents keyed to a diverse set of issues they considered important during the analysis phase, citing both efficiencies and frustrations with regard to defining the scope and intensity of analyses, the nature of selecting appropriate indicators (qualitative vs. quantitative), using existing information versus generating new information, setting appropriate thresholds, analyzing the no action alternative, and socioeconomic analyses.

Scope and intensity

Most respondents acknowledged difficulties in determining the appropriate scope and intensity of environmental analyses in the NEPA process. Some noted that this uncertainty could be a significant source of delay and attributed it to a fear of risk-taking brought on by a desire to create "the bulletproof perfect document."

> ". . . a lot of times, the length of the process is not due to the public, it's us. How do we analyze this? How do we analyze that? . . . probably the hardest one is in the biological resources, you know, wildlife and plants. It's hard to measure. You can't count rabbits or goshawks or whatever the species is, and there's a lot of unknowns, uncertainty in that discipline. And of course nobody wants to make a decision where there's uncertainty involved . . . ultimately that seems to really slow the process down a lot, you know, trying to come up with 100% answer on all of these things."

Several respondents suggested that changes in the way in which they perform their analyses could improve the NEPA process. One noted that narrowing the scope of what a project seeks to accomplish might be helpful.

> "I might narrow the scope. Where we looked at everything from in-stream habitat improvement projects to road decommissioning, culvert replacement, and all the various silvicultural practices, I might have looked at it a little bit more specific to just silvicultural practices."

This raises an interesting question: while limiting the scope of the project and its analyses might provide for a quicker or "easier" NEPA process, would doing so undermine the purpose of the law? In three cases, process managers actually lamented focusing on only a portion of their managed landscapes. On at least one of these projects, it was believed at the outset that piecemeal treatment of the landscape would allow an escape clause for managers with regard to public challenges ("that's outside the scope of this project"). In retrospect, all of these managers felt they had taken an inefficient approach and dreaded the work to come to treat the rest of the area.

A similar concern was raised in how intense the level of analysis may become. Some respondents urged greater streamlining of the process. One noted the importance of trying to not "count grains of sand." Most cited specialists' workloads, particularly biologists that are required for many NEPA documents, as a key problem in more fine-grained analyses. One respondent suggested assessing impacts in a more general sense – identifying any adverse impacts and making decisions quickly, rather than letting the analysis process become bogged down in a quest for perfection and with "wordsmithing."

This perception corresponded to that of another respondent from a different agency, who perceived that increasing levels of required analysis may meet neither the intent of NEPA nor even make sense:

Analyses

> "I'm not convinced that the authors of NEPA, and I know some of them, believe that the level of detail that the [*agency*] does, goes through in doing an environmental assessment, is essentially what they intended for an environmental impact statement… there are all these requirements that we have to address in environmental assessments that take, you know, something that can be done in 30, 35 pages, and it becomes 70, because you're having to address, like we're required now to address museum collections in every environmental assessment…what value is it? You're not dealing with a museum collection. I should just be able to say this is not…a museum, or…there's no collection here that…we're working with, and so I shouldn't even have to mention this in the EA."

Another agency employee reported that the intensity of some of their analytical requirements forced them to spend time on impacts that were perhaps even speculative or specious:

> **A:** "For instance…in air quality. Comparing prescribed burning, which it's fairly easy to quantify the smoke output, to mechanical work, you then have to – so you're looking at mechanical work, you're measuring the output of chainsaws and chippers and pickup trucks. Is that, for what we're doing here, does that matter? And it turns out, A, you can't measure, you can't predict it with much certainty."
>
> **Q:** "But you have figures in there on those."
>
> **A:** "I know. I know, yeah. So there's an example. I don't think those figures are serving much value."

Analyses performed for reasons seemingly unrelated to the particulars of the project were identified in some cases as being driven by agency legal counsel. Several respondents noted that legal counsel would second guess the form or depth of analysis and suggest specific alterations. Clearly, the threat of litigation may be driving analyses that might appear irrelevant, but in a litigious, risk-adverse climate, may nonetheless prove rational.

Likewise, perceptions that museum collections must be evaluated in each National Park Service NEPA document may reflect a misunderstanding of NEPA requirements, or a concern that failure to include it will weaken the document in a court of law regardless of its irrelevance to the project and the environmental effects at hand. In our case studies, two out of three NPS EISs referred to museum collections, while none had any affect on them whatsoever. Each was conducted during the same time period. This suggests less of a mandate than a perceived mandate.

Qualitative vs. quantitative analyses

We did not find agreement on whether more or less quantification would lend efficiencies to the process. Our review of documents revealed wide variation in the types of indicators and data provided, ranging from very limited text with quantitative tables to extensive qualitative text with very few quantitative figures. While the use of discrete quantitative variables can work to streamline data collection and make NEPA documents somewhat easier to navigate, they may run the risk of limiting the depth of analyses by only counting what is easily countable. Within each agency, both quantitative and qualitative analyses were employed.

Our USACE respondents reported a general emphasis on quantitative assessments. For restoration processes, for example, the USACE always includes a "net ecosystem restoration" calculation, "by acre-fee of water delivered or acres restored in some way or improved." Some of our Forest Service interviews also revealed a propensity toward quantitative indicators. Some respondents suggested that quantitative indicators in tables or other simplistic formats (such as bulleted lists) not only made the document easier to read but also easier to write by providing clearer guidance to team members in the drafting stage.

> ". . .how many stream crossings, how close to lakes…how many soils? Are they wetland type soils or not? How many miles of roads, ant trails are on those soils, and to give you kind of a quantification process…It's easy to write it because you've got those numbers and you just make it work."

Another respondent pointed out that using numbers makes ranking proposed alternatives easier, and that it can increase the defensibility of the project documents. Meanwhile, other respondents felt concerned about the quality of purely quantitative figures. For one respondent, this varied by discipline.

> "I think the push towards quantitativeness is actually a mistake. Because I think it becomes, it gives everybody a false sense of security about things that they don't necessarily know, because you're always predicting the future…it's like using a model and not fessing up to its weaknesses… indicators for every single impact is just, is ludicrous. It just doesn't exist. So…in cases where it's valid, it's valid. Air quality particulates, that's fine… [but] these indicators for visitor impact values is just really stupid."

One National Park Service respondent described their internal "Choosing by Advantages" system used during NEPA processes to make decisions regarding alternatives. The process involves ranking options through cost-benefits assessments. The respondent explained that having the data laid out in charts quantitatively can lead to a false sense of security in its validity. "I think there's great potential to cheat the process . . . how do you know everything's in the charts?"

New versus existing information

The tensions between analyzing existing data and gathering new data necessary to fully analyze the proposed action were highlighted by several respondents. A common sentiment is reflected in the following statement from one respondent, "…[the] NEPA funding process is not designed to collect any new information; it's merely designed to use existing information." This was a common frustration: "…you're getting ready to do an EIS in _____ and you don't know crap about the park…we didn't even have a good map of the park." This respondent suggested that a database of "useful…retrievable… and relevant information" would be of value for conducting NEPA analyses.

Another respondent pointed out the delays and other procedural problems that might be inherent with data gaps, but also that data gaps may be manipulated as a means of satisfying a personal or professional agenda:

> "Well, we talked about that as an issue for this project, is not having any data at its onset, and that being the first 4 years of delay was caused by gathering data. You know, you don't do an NOI until you know what it is you've got to work with. They did the NOI first and then they gathered the data. We don't recommend that."

> "…we're never going to have all the data everybody wants particularly, but the harder you look at things sometimes the more questions you have and the more data you need…then you get the specialist saying well, this data doesn't support my view, so I need more data."

Another participant had mixed feelings about the use of existing data versus acquiring new data. While openly acknowledging deficiencies in baseline data when the organization starts a project and that it would be important to acquire such data, the interviewee resisted suggestions from stakeholders that federal lands be used to empirically obtain that data:

> "they [*stakeholders*] feel a deficiency is that we don't have any research on the use of explosives on wildlife…[*they*] want us to be the test…our position is we're not willing to use [*our site*] as that test site…But, in general, I would say more baseline information would be really helpful in knowing…and feeling much better about our determinations about level of impact."

This apparent contradiction further confounds the question of what role NEPA should have in triggering new data acquisition, and what role the federal land managers should play in conducting surveys, inventories, experiments, or other means of empirically contributing to baseline information.

Thresholds

The NPS and the USACE were unique in that they commonly had specific thresholds within their analyses that would help them both to determine the reasonableness of potential alternatives and to weigh potential actions in the decision-making stage. The NPS distinguishes the term "impairment" from "impacts." The term impairment comes directly from the NPS Organic Act and provides managers with the ability to set a threshold at which impacts become impairment. Any alternative that exceeds this threshold is deemed unreasonable. While thresholds such as this can be useful to staff, they also come with specific challenges. Not only can they be disputed by the public and special interest groups, but they can also complicate analysis of the "no action" alternative. While theoretically it is often impairment that spurs action in national parks, ID teams do not use the term to describe the consequences of no action because of the political repercussions of implicating the superintendent in negligent management.

The USACE sets clear restoration thresholds for its alternatives. If an alternative does not restore *x* percent of an ecosystem, then it is discarded. The USACE is also required to develop one alternative that maximizes net economic development benefits. While this alternative is not always chosen, it provides clear instructions to project teams with regard to what is expected of them. Decision-makers reportedly base their decisions upon selecting the "least costly environmentally effective plan."

Interviews with personnel in other agencies suggested that clearer thresholds to guide decision-making throughout the NEPA process could help to streamline the process and ease both uncertainty and the fear of inappropriately (and commonly inadvertently) biasing alternatives.

Impacts of the no action alternative

Some respondents expressed specific frustrations with the way they have felt obliged to describe the no action alternative. There was a general sense, especially on projects geared toward improving environmental quality, that NEPA analyses were supposed to focus primarily upon negative environmental impacts rather than positive ones. While there is no specific requirement in NEPA that mandates such treatment, traditional practices seem to have limited the use of the EIS to highlight the negative impacts of proposed actions. In at least two cases, this feeling was enhanced by the nature of biological opinions submitted by the Fish and Wildlife Service. On one project that focused upon removing over one thousand miles of roads from a managed landscape, agency personnel expressed frustration that the biological opinion was written as if each alternative was causing new impacts upon the landscape rather than actually removing them.

In other cases, some agency personnel were reticent to fully disclose the full impacts of the no action alternative. In some cases, this was for political purposes (see *Thresholds* discussion above). In others, it appears that the no action alternative was simply given less attention because it was deemed less important. After all, the NEPA process is actually about doing something, not choosing the no action alternative. Our interviews suggest that fuller disclosure of the impacts of no action might help to better highlight the potential positive environmental impacts of action alternatives.

Socioeconomic analyses

> *All agencies of the Federal Government shall . . . utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment*. Sec. 102 [42 USC § 4332].

While NEPA requires the integration of the social and natural sciences, socioeconomic analyses regularly took a backseat to environmental analyses in our case studies. In one case, a NEPA coordinator actually suggested having no knowledge of what went into such analyses, rather farming out the responsibility to others entirely.

> "We don't pay a whole lot of attention to it, to be perfectly frank with you."

Many respondents reported limited expertise on staff to deal with socioeconomic analyses. The BLM uses its Denver office to supplement this problem, though funding limits how often this actually takes place. In other agencies, socioeconomic analyses can be carried out by consultants or agency staff. In the latter case, the subject matter can be limited to the particular disciplinary expertise of available staff.

Little guidance on socioeconomic analysis exists in agency guidance documents. The only substantive difference within the guidance documents of the agencies in the study is that the USACE provides guidance that implies treating public preferences as data. "Values information is among the most important in the planning process. Values contain the information about what various publics think the plan 'ought' to do." (ER 1105-2-100, App. B.5.c.2.e.2) Other guidance documents do not place value on public preferences. NPS guidance actually states, "Comments in favor of or against the proposed action or alternatives, or comments that only agree or disagree with NPS policy, are not considered substantive" (DO-12, 4.6B).

In contrast to the guidance documents, in practice, all agencies considered public preferences in both the development of alternatives and in decision-making. The fear of public protest and/or litigation placed an invisible mandate on agency personnel to do so. However, these preferences were not considered socioeconomic data in any of the agencies, including the USACE, nor were they considered with any consistent degree of importance.

One case study sheds some light on the possibility of public preferences as socioeconomic data. A survey had been carried out assessing public opinions of agency actions, showing that 84% of the public was generally in favor of the agency action. Managers found this information useful in a number of ways: for morale of staff, for confidently selecting the appropriate alternative, and for defense in court. While even defining a representative sample of "the public," let alone obtaining one, poses numerous challenges, we asked other respondents in other areas a hypothetical question about whether or not they felt such information would be helpful to them. We received mixed responses. Most commonly, respondents suggested that the public generally does not know enough of the science behind decision-making to make reasonable judgments. Therefore, the information would not be useful. Others suggested that public preference should have no bearing whatsoever on management decisions in any case.

> "I don't think those people have all the data that they need to make the right kind of an evaluation. So I think they would be making snap decisions based on things that are really not relevant. In fact, I think it would be a really bad idea."

One respondent suggested that on projects that deal with recreation or visitor centers, such input might be useful, but otherwise would be against the idea. Another four respondents suggested that such data would more generally be a welcome addition to the NEPA analysis process.

> "I guess, to me I think it's useful data. And the reason it's useful is because if there's an overwhelming preference for the opposite of what you're choosing to do, then I would think you need to communicate better, or maybe you are choosing the wrong thing."

A final issue with regard to socioeconomic analyses that surfaced in our interviews regards whether socioeconomic analyses need to be included in EAs. The CEQ regulations (40 CFR 1508.14) explain 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 effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment." This leaves some ambiguity as to whether EAs require analysis of socioeconomic impacts. One

NEPA coordinator suggested that because the purpose of an EA is to determine whether or not an EIS is necessary,[1] according to the above statement, analyses of socioeconomic impacts should not be required in EAs. However, the chief counsel to CEQ recently wrote that "many people wrongly assume that agencies need not include social and economic effects in environmental assessments (EAs). In fact, the types of effects to be identified in EAs are the same as for EISs. In this context, those effects include aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative" (Bear 2003: 956-7).

Summary

There are a number of perceptions, not all of them consistent, amongst agency personnel regarding the analyses that NEPA requires, the utility of those analyses, how to improve the availability of data, and how to actually get the work done. We would suggest that this portion of our interviews raises more interesting questions than it resolves, particularly with regard to the tension between desires to both narrow the scope of analyses in NEPA processes and employ ecosystem or landscape-level management strategies; the extent to which NEPA is an information-generating mandate; the appropriate intensity of analyses; and the disciplines necessary to carry out analyses effectively.

[1] It should be noted that no ID team leaders or decision-makers interviewed in this process felt this to be the purpose of an EA. See *Determining the Appropriate NEPA Pathway.*

3.9 PUBLIC INVOLVEMENT

For which NEPA pathways (EIS, EA, CE) is public involvement required?

Table 3.9.1. Requirements for public involvement for each NEPA pathway described in agency guidance documents.

Agency	Cat. exclusion	EA	EIS
USDA Forest Service	Public scoping required.	Public scoping and comment period on draft EA required.	Public scoping and comment period on DEIS required.
National Park Service	Not mandated, but encouraged.	Public scoping encouraged, not required. Scoping with tribes and other agencies required.	Public scoping and comment period on DEIS required.
Bureau of Land Management	No public involvement required.	No scoping is required. Public review of EAs optional, though copies must be sent to all who request them.	Public scoping and comment period on DEIS required.
U.S. Army Corps of Engineers	No public involvement required.	Public comment period on draft EA required. Public scoping not required.	Public scoping and comment period on DEIS required.

What do agency personnel see as the role of the public in the NEPA process?

Our interviews revealed four major viewpoints held by agency personnel about the role of public involvement in the NEPA process:

1. It is necessary to keep the public informed, because this is required by NEPA.

2. Occasionally, the public can improve agency analyses and/or alternatives by pointing out issues the agency may have overlooked.

3. Engaging the public in meaningful two-way exchanges can help to lessen conflicts and/or make land management more efficient and enjoyable.

4. Public involvement can function to hold the agency accountable for actions that negatively impact the environment, influencing more sound decisions.

Informing the public

Some agency personnel reported that their public involvement efforts were mainly limited to keeping the public informed. These respondents generally felt that public involvement rarely added much to the analysis and had little impact on whether appeals or litigation would be brought against the action. One respondent explained that their public involvement processes were designed primarily to avoid “grandstanding” by the most vocal opposition. There was a sense in two of our interviews that agency personnel were primarily concerned with containing, or at least minimizing opportunities for, public opposition to their proposals. This involved avoiding open public forums. While

these respondents doubted their abilities to limit appeals or litigation, they felt they might be able to avoid delays and the general unpleasantness of public outcry. Two respondents expressed concerns about escalation of public dissent at public meetings by the media. One noted the impact this could have on politicians who have influence over project funding.

All respondents in the study reported a general frustration that most public comments dealt merely with preferences for one alternative or another. In some cases, this sentiment translated into a stronger emphasis on merely informing the public, rather than seeing public involvement as a real opportunity to inform better decisions. One respondent suggested that because the public doesn't have access or training to understand "all the data that they need to make the right kind of an evaluation," public input often has limited value. Others reported that self-interested members of the public do not always understand the mission of the agency or appropriate ways of managing protected landscapes. Some respondents used such explanations to devalue public input.

> "I don't think it should be part of the decision whether or not people are happy. Because the best decision often times results in a lot of people not being happy, because they don't get what they want."

Improving analyses

While many respondents suggested that the public rarely, if ever, actually improved agency analyses or alternatives, some still saw this as a key function of public involvement. Others suggested that the public has had substantial useful input into analyses and alternatives design. Even most of those who did not highly value public input still sought information from the public that could influence the analysis.

> "The only purpose of the public scoping was . . . to prepare the public . . . that we were working on this and to get any new ideas for either alternatives or impacts to look at that we hadn't thought of."

In some cases, respondents explained how public comments improved their final proposed action. Others noted that although the main thrust of a proposal might not change, public comments commonly influence the quality of the environmental analyses and the details of carrying out the project. One respondent expressed that useful input was rather rare in the process, though he continued "wanting to get something significant that we could then use, you know, to change our, one of the alternatives, to make changes and improvements."

> "We might not have gotten this far. We might not have tried those last couple of tweakages, and now we really have a better plan – a much better plan . . . I think it's arrogant of us to try to do that kind of, something with such a high public profile, without effective public participation."

> "Public comment on the draft is still very vital in refining the proposal and identifying mitigations or constraints."

In one of our case studies, a working group formed by members of the public developed the first alternative considered in the NEPA process. Team members had differing opinions as to the value of this process. The alternative was not selected, although the preferred alternative was based upon its general design.

Engaging the public

The majority of respondents suggested that merely informing the public and accepting their comments was insufficient public involvement. The term "engagement" was commonly used to describe less formal communications that involved dialogues between agency personnel and members of the public. Examples include informal focus groups, site visits where agency personnel accompany members of the public to a site to talk about the project, and "informal sit downs" where ideas can be openly exchanged between agency personnel and members of the public. The idea of engagement also reached into more formal techniques, such as open houses, public meetings, and newsletters. The common threads of the idea are that exchanges with the public are proactively sought out and that public comments are highly valued and conspicuously incorporated wherever possible into analyses and alternatives. Collaborative processes fit within this concept as well. These techniques for accomplishing "engagement" are further discussed below.

Although public engagement often began before beginning the official NEPA process, no respondent suggested that the public should play any major role in strategic planning or in identifying the purpose and need for a project.

Holding agencies accountable

Some respondents viewed the public as a watchdog for agency actions. This viewpoint might be the most consistent with NEPA's original intent (see *The Purpose of NEPA*). Agency officials can be differentially impacted by normative pressures brought upon them by members of the public to do various things. When public pressures tend to coincide with the intent of NEPA to limit harmful environmental impacts of federal agencies, there may be a multiplier effect of their influence. When these pressures are accompanied by the threat of litigation, they can become even more powerful.

> "To keep us honest, quite frankly. I think that there's a certain level of inquiry that can't happen internally but can happen from a public perspective, and I think that's necessary. And it's not only keeping us honest, but what I really mean by that is keeping the plan on focus or, you know, whatever the project is, on, so that it relates to what the public really wants its stewards to do with its land."

Accountability can also relate to actions with primarily socioeconomic impacts. One respondent described a scenario in which the Park Service set out with a plan to tear down a Visitor Center. During the formal public involvement process, "The Park Service got beat back. They had to fix it. They had to repair the building. They never got to tear it down. The public outcry was huge."

What does public involvement actually look like? What practices or techniques have been particularly valued by respondents?

Certain practices were incorporated by all agencies in the study. Each agency maintained mailing lists to keep the interested public informed of opportunities for involvement and the status of processes. In some cases, detailed websites were maintained to track the process, make public the results of preliminary analyses, summarize public comments and agency responses, and publicize upcoming opportunities for future public involvement. Each agency also grouped similar public comments on the DEIS when possible into one single comment to which the agency would then respond. All respondents agreed that public involvement early in the NEPA process was also important. However, different respondents preferred different forms of public involvement and have met with varying degrees of success.

Public meetings

While some respondents preferred standard public meetings in which a presentation is made to a large group and then comments are made publicly, the majority of respondents suggested that this was not the most effective way to conduct public involvement. Large public meetings limit the possibility for meaningful two-way exchanges and allow for antagonistic grandstanding that is often counter-productive to the process. One reported how grandstanding at public meetings by a vocal minority often led to an inaccurate portrayal of the majority of the public by the press. Bad relations with the press were cited more than once as a reason for avoiding traditional open forums. Most respondents suggested that open house formats or formats that involved a presentation followed by breakout groups were more successful formats for public meetings than traditional presentations followed by comments. Nevertheless, some stuck to more traditional approaches.

> "PowerPoint, where you've got the group sitting out here and then you got the audience sitting out there, and if they want to talk they can come up to the front."

In one case, a fear of noncompliance with FACA was cited as a reason for adhering to a traditional public meeting approach. Other methods described by other agencies, however, did not require any additional processes related to FACA.

Valued practices for these types of meetings cited by those who conducted them included answering any questions up front before taking comments and having a high ranking, charismatic official as the primary communicator. Opinions on the effectiveness of contractors as a "neutral" third party varied widely.

Open houses

Some agencies followed traditional public meetings with open house sessions, in which agency personnel would man stations containing information related to different aspects of the project. In other cases, public meetings were avoided altogether in favor of open houses. Agency personnel would make themselves available in addition to analysis results, maps, and other related information for an extended period of time, stretching into the evening to allow for maximum attendance. Agency personnel would answer questions and provide comment cards for people who would attend. Some noted the advantages of being able to avoid public grandstanding with this technique. Others noted the value of communicating in small groups and allowing different constituencies to interact in a less dramatic setting. Still others defaulted to open houses because of their relative ease.

> "It's easier to just answer questions, you know, and stuff, than to try to think up a presentation that covers everyone's, hopefully covers everyone's questions or, you know. I don't – we just felt that it was better, it was a better avenue to reach a lot of different people."

Breakout sessions

Public meetings were also sometimes followed by breakout sessions, during which public comments would be invited and recorded. Respondents reported that the loudest voices would often go home prior to the start of breakout sessions, realizing that their opportunity to voice opposition in a more public forum would not be granted. While respondents expressed satisfaction with replacing public responses to the entire meeting with comments in breakout groups for this reason, its impacts upon appeals, litigation, and other forms of public protest are unclear.

Smaller, less formal meetings with specific constituencies

Some respondents reported that meeting with different constituencies separately was a more effective means for public involvement than any other. Many personnel viewed such meetings as easier. They reportedly helped to build trust between agency personnel and different facets of the public, limited opportunities for inter-constituency conflict, and allowed for more meaningful exchanges of ideas and concerns. One project involved two years of informal meetings with constituencies prior to developing the purpose and need.

> "I think that's [*sitting down with constituencies informally*] just as good and a heck of a lot cheaper and faster than, you know, the whole facilitated collaborative group grope kind of a thing."

> "[*The project team*] worked hard to sit down with them [*constituency groups*] and invite them in and talk to them about the issue and hear their side and over and over and over again, you know, and I got feedback from even the _____. 'You know, we disagree with you but at least you're listening to us. At least you're sitting down and we're talking about it.' And, you know, I think that that was well done. I mean, far more than you would have to do under any type of typical NEPA guidelines."

> "I think really did pay dividends in that we had several participants who said well, we still don't like cutting trees. But we understand what you're going to do and why you're going to do it, and we can live with this."

Site visits

Informal field visits with members of the public and specific constituencies were also incorporated into public involvement processes. Respondents highly valued these processes in all cases in which they were conducted. This form of engagement can have similar effects to other types of informal meetings and can also work to further build a common understanding of the resource.

> "Even timber sales and stuff, we'll take people out into the field to look at the site and talk about what the proposed action is, and sometimes they will appeal just to appeal, you know, they're going to, but if you take them out there and explain what's going on, they won't. And that has happened here on this forest, and you know, it comes back to the Forest Plan. If they agree with the desired future conditions, and you can show that this proposed action will help achieve that, then, you know, but they were misreading it and if all they're reading is the document they don't quite pick up on all that."

Attempts at collaboration

Collaborative processes were attempted in two of our case studies. In each case, a group made up of members of the public representing different interests actually developed an alternative that was fully analyzed in the EIS. In the first case, the agency was able to choose between two publicly-developed alternatives with the added benefit of a legislative FACA exemption. The agency chose to include only one in the EIS analysis, though it was not ultimately chosen as the preferred alternative. Agency personnel reported including this particular citizen alternative because its analysis would demonstrate the broad range of management options the agency considered.

While the second group in the other case study did not have formal federal advisory committee status, it functioned in a similar manner. One alternative was developed which also was not selected as the preferred alternative. It was rather used as the basis from which to create the preferred alternative, which basically built in environmental mitigations to the public alternative. Agency employees had mixed feelings about the process. It took nearly two years and the environmental constituency resigned from the process and submitted its own alternative. One agency staffer suggested it had no impact whatsoever on the final plan; one suggested it had a slightly negative influence on the process, because the public failed to take an ecosystem approach to the problem, rather focusing on pieces of the landscape that interested each personally. As the agency was reticent to completely scrap the public's alternative, they felt obliged to build from it. A third staffer suggested that the collaborative process had a positive impact on the final outcome, better accounting for public use of the landscape. It is unclear whether the process limited appeals or enhanced public support (two appeals were received, one upheld).

> "The meetings to me were productive because we did get what we wanted out of there. We got alternatives out of there and we got everybody's opinion. What it did, in a way, though, it isolated a lot of, instead of bringing people together in a consensus, it probably isolated more people than it did bring people together."

> "You know, they come in and think they're going to vote, or one thing or another, when really what you're just trying to do is have a better understanding of what they want, and, you know, help them. So you just spend a lot of time getting them up to speed with the process, and then getting their biases out of the process a little bit. It seems to, it makes it so much harder, I think, . . . I've done it a lot of ways, you know, the old days we'd just send out a letter and hope nobody replies, or . . . the other extreme, you know, these collaborative groups with outside facilitators, and you just feel warm and fuzzy all over, but they a lot of times don't go – I've been involved with a couple of these and they usually just, so somebody gets angry and goes home, and when they ultimately don't get what they want it puts more pressure on us, I think, so I don't think it's a good thing."

Timing and Disclosure

While all respondents agreed on the importance of early public involvement, there was less agreement on the nature of that involvement. In general, respondents advocated for reaching out to the public, especially groups that have a specific interest, informally as early as possible. According to one respondent, the public should be involved even in the formulation of the purpose and need.

One finding that could prove important if studied further regards the relationship of the timing of public involvement with the development and disclosure of alternatives. In one process, alternatives were developed internally and shared with other agencies for comment before the first scoping meetings with the public. The agency purposefully did not share the alternatives at this meeting. "What we really wanted to do was say, 'It's wide open. We're thinking about everything. Just give us your ideas.'" While respondents associated with the case study had no strong opinions about the effect of this decision, prior research by one of the authors of this report suggests that this can lead to a perception that the agency is hiding its true intentions and lead to additional public perceptions of pre-decisionality (Stern 2006). These accusations were common in this case study, but they could not be directly linked to this decision.

Other agency's personnel suggested that alternatives should be presented to the public at the first possible opportunity. In other cases, the public was actively involved in developing alternatives.

> "I'd rather give them a good target to focus their aim. I think it's a much more productive, it's more productive time."

Addressing public comments

Two types of public comments were common to all case studies: scoping comments and comments on the draft environmental impact statement (DEIS). Some common practices and challenges applied to both types of comments, while others were unique.

Form letters were a common source of frustration in each agency. Most commonly, they were counted and treated as a single comment to which a response would be made in the EIS. One respondent opted not to report the number of form letters received for fear that the public, or other audience, might grant undue importance to the comment. A common perception is reflected by one agency official who explained what she does when she receives a petition in her own personal mail, "I tear them up and throw them in the wastebasket because I know exactly what effect they have on public officials like me – none whatsoever."

Most respondents stressed the importance of demonstrating a clear response to all comments, whether received in scoping or on the DEIS. Most EISs we reviewed contained an appendix with a two-column table containing summarized comments in one column and agency responses in the other. Summarized comments are also made available on websites. The USACE sometimes publishes the entire transcript of public meetings along with all comments on their websites.

> "Get their input and say thank you and then go back and put as much of their input into an alternative as you can, so they can clearly see that you listened and are acting on what they wanted."

In one of our case studies, scoping comments received far less formal attention than comments on the DEIS. Presentations were given to different constituencies and a public scoping meeting was held, yet comments were not officially recorded. The ID team leader explained that after the agency's presentation, ". . . we would, you know, listen to comments, but mainly it was sort of an informational thing so that people knew that this was going on, and we told them how comments could be given and . . . what we thought the schedule for the EIS would be." Comments were not actually recorded. The respondent described communications with participants. "After the scoping meeting you need to wait for the draft. When the draft comes out then you can give comments. Well, I mean, we said, basically you can always call the park and give comments, but if you want to give formal comments that are

going to included in the record, the administrative record, this is when you do it." Some other cases also reflected a tendency to treat comments on the DEIS more formally with direct responses in the EIS. In others, scoping comments were recorded and directly incorporated into comments on the DEIS for response.

General consensus amongst respondents was that all public comments on the DEIS warrant at least some response from the agency, even those that are outside the scope of the project or merely voice a preference. All respondents voiced frustration with public perceptions that public comments should be treated like votes for specific alternatives.

> "It's usually easier to just go ahead and answer it than decide it's not worth answering or something. Because it's easy enough to answer it, and then you're done."

> **Q:** "What do you do with comments that are purely just public preference comments? That are just like, we vote for alternative 7?"

> **A:** "We put them all together and say, 'The following comments essentially are all expression of a preference for alternative 7; no response is required.'"

Although USACE guidance is unique in that it specifically notes public values as valuable information in agency decision-making, we did not find any cases in which these data were actually employed in official analyses (see *Analyses* for a discussion of how they might be). Public preferences rather influenced agency decision-making only through normative pressures brought on through the fear of appeals and litigation.

Centralized vs. decentralized comment coding

In some cases, a centralized team coded public comments. In others, a small group of ID team members (usually two to three) took on this task. The primary goal of comment coding was to draw out the main points of each public letter or statement and group them into one coherent comment to which the agency could provide an official response. In each case, ID team members, and occasionally other subject matter experts, would respond to the coded comments. While in some cases, centralizing this process was viewed as efficient, it caused problems in others. In one case, the ID team leader suggested a lack of context-specific knowledge led to inappropriate coding that had to be repeated. In addition to the time and money spent on dual coding, the ID team leader felt that the rushed re-coding of the data probably made it difficult for the public to identify and find responses to their comments.

> "They [*the centralized team*] would read a letter and classify it as something that was just incomprehensible to us. So we had to, I'm not sure we were able to go back and re-classify all of them. . . . the classification and the categorization was very, was poorly done."

The timing of centralized processes also raises the question of whether comments are receiving full consideration in the development of alternatives and analyses. As centralized coding generally takes place after the release of the DEIS and remotely from the ID team, public comments are often not fully considered until very late in the process. This may have an effect on their influence in the actual work that goes into the analyses.

What are the impacts of litigation and appeals on public involvement?

Some respondents felt that their efforts to improve public involvement were futile. Just as the public would accuse agencies of being pre-decisional, some agency personnel felt the same way about some of the most common litigants of their agencies. Many respondents expressed the opinion that most of the public tends to be indifferent or mildly supportive of proposed agency management actions. Other groups are "pre-decisional. They've already made that decision that there's nothing you can say to us that is going to get us to support what you want to do. I mean, it's so tight, it's so minuscule where they're willing to let us work, that to them, they would much rather have the fight. It's the way that they, it's where they gain their profits, it's how they're funded."

> "The people that are going to oppose it are going to oppose it no matter what we say at these public meetings."

While not all interviewees agreed, some Forest Service respondents blamed the appeals process for limiting motivation for the public and special interest groups to participate in the NEPA process.

> "Why should I invest time and energy and effort in that if I'm going to have players that come in afterwards that have this veto power on a decision I make, a decision that I've made with a community of interest? And so I get frustrated with that, and I think many of my peers would echo that. It's just, you know, now let's do collaboration, but if somebody sits on the outside and watches and doesn't want to participate, or they sit at the table and don't get their way, then they've got this appeal litigation avenue."

> "I think that the wrench in collaboration is the ability for a 39-cent stamp to appeal outside the process."

Respondents from other agencies felt similarly about much of the litigation they faced. The lack of clear thresholds to establish standing for litigants, such as an earnest effort to participate in the process, likely contributes to this phenomenon.

Summary

While all agency personnel felt that informing the public was a key element of the NEPA process, not all agreed on the extent to which the public should be involved in the process or the methods for their involvement. Some common themes, however, did emerge. Informal proactive involvement with key constituencies separate from each other was consistently valued highly by respondents. This involvement could take the form of site visits, informal meetings, or open houses. The benefits to such techniques involved limiting inter-constituency conflict, enhancing meaningful two-way exchanges of ideas between the agencies and constituencies, enhancing trust in the agency, enhancing public perceptions that their comments are actually being considered, and increasing the quality of information obtained from the public.

> "Working with the public informally early on in the project. Knowing the people who care, and it's usually a small group, you know, it's not everybody on the 1,000-name mailing list, but you usually know there's a couple of groups out there that are really involved and know and care. And I'm not talking about, you know, some of those wild environmental groups that just appeal everything because they hate the Forest Service. I'm talking about the people that really care about our decisions. Working with them up front and getting their opinion, their ideas, and listening and incorporating those into your proposed action, you know, before you really even go out to the streets with the scoping letter. Man, I've seen that just pay off in spades time and time again, because then you're getting that buy-in, you know, they see that you're listening and you get some good ideas too, and it doesn't take that much time. I mean, it's a day out in the field or something, or a meeting, and away you go. And you get a lot of support that way . . . that's probably the single best thing I've seen time and time again, no matter where you are."

Responsiveness to comments was also highly valued across the board, even with regard to comments not considered substantive. Respondents viewed issues regarding collaborative processes, openly sharing all internal analyses and alternatives, and centralized versus decentralized comment coding in variable lights.

3.10 WRITING THE EIS

For whom is the document written? What do agency personnel see as the purpose of the NEPA document itself?

Questions posed to agency personnel regarding the intended audience and purpose of the EIS often befuddled respondents. Reported audiences included the public, internal agency personnel, the decision-maker, the courts, and NEPA scholars.[1] Other responses indicated that a specific audience was not actually considered in the production of the document. Purposes most commonly included disclosure to the public, defensibility in court, and a reference for future management activities. Our interviews revealed that few respondents explicitly considered making a better decision as a specific purpose of NEPA documents.

> **Q:** "Did you write it with any particular audience in mind?"
>
> **A:** "You know, saying that, yes. Sure, I mean, I wanted to write it for the lay person, but then when you're done with all the NEPA requirements you're not writing it for the lay person, you're writing it for the NEPA scholar or the NEPA compliance specialist. So it's really difficult."
>
> "We're not writing EAs for the public, we're writing EAs for the 9th Circuit."
>
> "Making sure that the public understands is one of our prime objectives [*in writing NEPA documents*]."
>
> "The driving force was certainly at some point you know, it was just to get it done . . . it becomes just simply grunt work at some point . . . so there's less time and desire, especially with all the other competing issues that people face in their roles . . . to look at something like this globally and try to figure out how to make it more useable."
>
> "I don't know that the document itself has that much use. I think the process has a lot more use than the actual finished product. This [*the EIS*] is probably going to be very useful to lawyers more than anybody else, and people like you [*the interviewer*] . . . or students who study the whole thing."
>
> "It [the EIS] has some information . . . that's not available anywhere else. So if people want to find out about, you know, the issue, this is probably the only thing out there. But other than that, it's of very little use."
>
> "You can take a document, a decision document such like a decision memo or FONSI and you can lay that out and give it to the people that's going to implement the project on the ground and let them read that, along with any other associated things, and that's the way you'd get the project done in the correct manner."

Some respondents specifically noted the challenges of writing both for the decision-maker and for the public while at the same time attempting to bulletproof the document against legal actions.

[1] Similar categories were found in a 1985 study of timber sale EAs (Carbone 1985), which also revealed other agencies as audiences.

> "My touchstone for this is, is this information the decision-maker needs? And if it's information the decision-maker needs, it shouldn't be in the supporting record, it shouldn't be an appendix, it should be in the text. But if it's not, then I'm just as fiercely saying it shouldn't be in the text, not just it doesn't need to be, it shouldn't be there, because it dilutes the message that the analysis is supposed to present. And so if we look at this in terms of well, what does the public need to know to understand our decision, it is hard to know what can be taken out. If you look at it in terms of what does the decision-maker need to know in order to make a good decision, then I find it a lot easier when I'm trying to put together a document."

This respondent went on to discuss how the EIS is typically littered with information the decision-maker does not need as well as information the public cannot understand in order to make it as legally defensible as possible.

> "It does certainly create an unfocused document that's sort of hard to follow how you get from the beginning of your process to how you get to the end."

Only one decision-maker we interviewed reported actually reading an entire EIS cover-to-cover. Although we did not ask the question to all decision-makers, the most common sections read by the decision-makers we did ask included the purpose and need, summaries of environmental impacts, summaries of alternatives, details on the preferred alternative, and biological opinions. These findings suggest that much of the information contained within EISs is unnecessary for the decision-maker.

For their general management plans and other programmatic EISs, the National Park Service produces a separate document for sharing with the public and staff.

> **Q:** "What's the utility of an EIS? What's the intended audience, what's it supposed to do?"
>
> **A:** "Well, I think it's supposed to inform. But unfortunately, I think that we write them, their density is predominantly to serve the court as opposed to the public. Because the thicker and more obtuse they become, the less they inform. You know, what we've gone to in recent years is we do the full EIS and then we do a presentation GMP, which is a boiled-down, much more glossy, much more simple version, than goes to the public as the final. That's what it ought to be, where we ought to start, instead of this, you know, the full-blown, you know, monster document. But the reason that they're so dense with so much information is I think, is driven by the courts."

One respondent from the Forest Service suggested that the ROD is the only useful NEPA document, as it can be used by staff to guide implementation. A respondent from the Bureau of Land Management noted that the Record of Decision or the Decision Memo are often more concise and useful tools for the public, and that the public tends to focus on those documents to the exclusion of the lengthier and more difficult to understand EIS.

How do environmental impact statements actually get written in the different agencies?

Personnel within each agency described different processes for completing NEPA documents. The products themselves also differed not only in content and style, but also in overall format. The USACE proved unique in their EIS format.

> "We don't do separate EISs any more. This is an integrated project implementation report and EIS. And the NEPA chapters, the chapters that fulfill the content requirements of NEPA, are marked with an asterisk in the Table of Contents . . . We think it leads to a better report, because what happened under the old system is that you could have a feasibility report that didn't say the same thing as the EIS, and sooner or later we had to make those two match up. And that can be pretty embarrassing."

Agency processes for actually writing the document varied greatly. The relationship between project planning and congressional approval again sets the USACE apart from other agencies somewhat in this respect.

> "It makes for hurried writing. It makes for a lot of good-enough-for-government work because we have – if we don't get it out in time it doesn't matter how well written it is . . . If you take too long to write the report and the Congressman doesn't get a quick answer, he's not going to wait around. He's going to fund something else that's not nearly as well described."

This feeling of pressure has led the USACE to on occasion circulate incomplete draft EISs in order to meet deadlines imposed by long comment periods. These DEISs occasionally do not completely describe the impacts of all alternatives, rather reporting merely on the most likely alternative and the worst case scenario. No direct litigation was reported as a result of this, suggesting that the political and public systems within which the USACE operates is rather different from the other agencies under study.

Somewhat less variation existed between the other agencies in how EISs are produced. In both the Park Service and the Forest Service, the ID team leader most commonly would coordinate the writing of the EIS. In each case, subject matter experts were encouraged to write specific sections of the report given explicit instructions from the ID team leader regarding format and indicators. In each agency, however, subject matter experts were at times too busy to actually draft their sections. In some cases, they did not possess the adequate writing skills. In these cases, the ID team leader or another team member would draft the section, and then send it to the subject matter expert for review.

> "They read it and change it and make it theirs, and we tell them, 'this is just an idea, here's a format, now you make it yours.' It kind of gives you a skeleton and some beef to the skeleton, but you change the beef to make it right and everything."

Some respondents reported starting with an existing EIS and changing it as necessary. This proved easier in cases where indicators were relatively simplistic, involving simple tables of quantitative measures. In cases in which more qualitative text was necessary for describing potential impacts, this proved a more challenging exercise.

In two of our National Park Service case studies, some sections of EISs, especially the "Affected Environment," would be "cobbled together" from other plans, then sent out to subject matter experts for their review. The "Environmental Consequences" sections were mostly written by subject matter experts based on a template developed by the ID team leader. When people could not complete their assignments on time, the ID team leader would write the section and send it out for comment.

On one NPS project, separate sections, and even separate paragraphs within the same section, were written by different experts. Each section fit into a specific boilerplate developed by the ID team leader and other managers from other EISs. The EIS was managed on a central server and was eventually compiled into a more coherent document by a contractor. This technique led to a very large EIS (493 pages with over 200 pages of appendices) with tremendous amounts of redundancy and a perception by the ID team leader that the document was very difficult to navigate for anyone who attempted to read it.

Some ID team leaders reported that they did not want their regional NEPA coordinators to know about the use of this boilerplate style of EIS production, or of the technique of drafting sections outside their own area of subject matter expertise. One regional NEPA coordinator suggested, "I think part of this cut and paste and use boilerplate, if there's a fault in some of the products that we produce, that will be a common denominator." Another, however, thought that the use of a more standardized fill-in-the-blanks format could only help to make the process less confusing.

The BLM also used boilerplate approaches to their EISs. Some processes used an electronic tracking system to shepherd documents through the writing process. The ID team would designate a specific order in which subject matter experts would review and add their sections to the EIS. This particular process reportedly limited collaboration and created difficulty with addressing cumulative impacts. Again, a sense of guilt was associated with the use of boilerplate. In one case, the BLM designated one team member as the dedicated staff writer and had some success with regard to efficiency (see *Division of Labor*).

Contractors were used in the writing process in each agency. In the USACE, they sometimes wrote the entire EIS. In other cases, they were hired as editors or compilers of separate sections. In the other agencies, they more commonly served to deal with one specific topic within an EIS or worked to compile the overall document. On one Forest Service EIS, a contractor was hired to simplify the "scientific gobbledygook" into more lay terms and to make the sections more consistent with each other. In the Park Service, consultants were hired to ensure that documents complied fully with NEPA requirements, to edit documents, and to weave together disparate sections of reports.

Most respondents lamented the length of their documents and their relative inaccessibility to the public. A USACE respondent noted, "Just meeting that general guideline of an EIS should be no more than 150 pages long – we violate that with every – almost every document we produce. And I don't know how to get us back to it. Maybe it's not a realistic expectation. You know, we keep getting more and more content requirements loaded on us by our own layers of reviewers, and by environmental groups interested in what we do, so maybe it's not a realistic expectation." Most other respondents blamed the courts for large and indigestible documents.

Summary

Audience: Intended audiences for EISs included the public, decision-makers, other agency personnel, the courts, and NEPA scholars. Most respondents acknowledged that EISs and other NEPA documents are not ideal communication tools regardless of the audience. Meanwhile, some respondents clearly had not given much thought to who the potential readers of these documents might be, rather just focusing upon meeting all requirements as efficiently as possible. This may contribute directly to their ineffectiveness for communicating outside the courts.

Purpose: Most respondents clearly viewed the EIS as a legal tool that could protect them against legal and other challenges. Others merely saw it as a requirement without putting a great deal of thought into its intended purpose. Still others saw the EIS as a tool for decision-makers, even though only one decision-maker in our study actually reported reading an EIS in its entirety. Lastly, the EIS was seen as a repository of potentially useful information for future projects or documents. Addressing and prioritizing these purposes more explicitly might help agencies to make the documents more useful.

Boilerplate: Most respondents reported using some form of boilerplate technique for laying out their EISs. They also reported borrowing both text and layout from pre-existing EISs or other planning documents and editing as necessary. While some were concerned that this could limit the scope of analysis unnecessarily, most respondents felt it necessary to be able to complete the process in a more timely fashion.

Process: At times, ID team leaders found themselves in a position of having to write most of these documents themselves, or with a core team of just a few people. The unavailability of subject matter experts to draft their own sections was sometimes perceived to weaken the analyses and the utility of the documents (though no one suggested this made the documents more vulnerable to legal challenges). Having ID team leaders draft sections outside their own areas of expertise could also potentially contribute to either the conscious or subconscious introduction of additional biases into such analyses. One strength of the interdisciplinary team is to ensure that multiple viewpoints and fields of expertise inform better decisions. As analyses are constrained by the understandings and viewpoints of one person, they may limit the decision-space of the decision-maker. Even though the information may be correct or adequate, as checked by the subject matter expert, the potential impact of the approach to the analysis might be overlooked in these situations.

3.11 DECISION-MAKING

Incremental decisions are made throughout NEPA processes. Each has some bearing on the outcome of the process. At what point in the NEPA process does the final decision typically become clear?

All agencies have likely been accused of being pre-decisional by some constituencies in their NEPA processes. In the processes in which our respondents were involved we found that the final decision was often clear long before the development of the draft EIS (Table 3.11.1). In other processes, a final decision was unclear until public comment had been received. Even in cases in which the final decision was clear from the beginning, respondents reported that the details of those decisions typically remained flexible until the very end of the process.

Table 3.11.1. Responses regarding when final decision is apparent.

Point in process when final decision becomes clear	FS	NPS	BLM
Following development of purpose and need		1	
During or immediately following alternatives development	1	2	1
Immediately following interagency coordination, before DEIS	1		
Part way through the environmental analysis		1	
While drafting the DEIS		1	1
Following public comment on DEIS	2	2	2

Q: "At what point in the NEPA process do you typically know what the preferred alternative's going to be?"

A: "In the olden days, it was the first thing."

Accusations of pre-decisionality are usually coupled with accusations of disingenuous public involvement (Stern 2006). While the Act implies that the final decision should not be made until the very end of the NEPA process, agency personnel cited their professional training and experience in explaining why the most appropriate decision was often clear long before the end of the process, and often before public involvement. This calls into question the utility of many aspects of the NEPA process in the actual decision-making practices of agency decision-makers.

"I need a lot less information than I know the public does, but that comes from familiarity with the resources, the ground, going out on the project, being at the meetings, doing the knowledge gathering early on . . . that's honestly where my comfort zone comes from, that's, if I'm standing in the spot on the ground and I can look at the resources, and I can tell what's in writing, even if it's minimal, so far, is on the right track in terms of what we should be doing there and what the effects of doing that are going to be, my comfort zone just increases exponentially and I need a lot less information each successive time. So then it's about what, would I, do I really need 150 to 200 pages? No, I don't, if I know the ground."

The USACE decision-making process avoids some of the ambiguity faced by decision-makers in other agencies, drawing upon its "Digest of Water Resources Policies and Authorities" (EP 1165-2-1, 30 July 1999) to provide metrics for decision-making which call for the least costly environmentally effective plan to be chosen. As such, cost-benefit analyses are used in the alternatives development stage to eliminate any alternatives that would not meet these criteria. This can produce an alternatives list with less variation than commonly witnessed in the alternatives of other agencies. In the EISs we reviewed, alternatives tended to vary more in technical details than overall strategies, limiting the general direction a project might take prior to the official decision-making stage.

How and why are decision-makers using (or not using) NEPA processes to make their decisions? What role does the NEPA process actually play in decision-making?

Rather than focusing on whether an agency is pre-decisional, we feel the results shared in Table 3.11.1 above say much more about the impact of the NEPA process upon improving decision-making. In some cases, the NEPA process appeared to have little impact upon decisions—the selection of preferred alternative could be made very early in the process. In other cases, decision-making was less certain, and withheld until the end of the process. We asked respondents about what NEPA processes actually contribute to their decisions. Their responses constitute three premises:

1. **The NEPA process is the decision-making process**. A decision actually gets made as a direct result of defining a purpose and need, identifying alternatives, analyzing the affected environment and likely impacts upon it, and consulting with other agencies and the public along the way.

2. **The NEPA process can support the decision-making process, but it is not the process itself**. NEPA serves to ensure a rigorous analysis and reveal information that might otherwise not have been available. This information is then taken into account in the decision-making process.

3. **The NEPA process has little to no bearing on actual decisions.** Under this hypothesis, the process is reduced to a purely procedural exercise.

Premise One: The NEPA process is the decision-making process.

Respondents from only two agencies, the Forest Service and the BLM, felt that the NEPA process actually was one and the same with the decision-making process.

> "I've always considered it a decision-making process. I mean, in terms of being the ultimate product that you make is a decision based on all the analysis in this process. So I guess, I guess, yeah, I still think of it as a decision-making process."

> "It's a decision-making process . . . I think it's very eloquent, it's good public policy, it's the right thing to be doing, it's all these other things. And we use it as a decision-making, I use it as a decision-making process. I want to know what those effects are. I want to know what the public said before I make a decision. And NEPA is a good process to do that."

> "It is definitely a decision-making process. To me, it's actually a pretty rational decision-making process in that it causes you, if you do it right, I think, to actually define a problem and people laugh when I say that, but a lot of times we define solutions and then we go out and look for a problem to apply them to. And it tells you to consider robust alternatives. It tells you to get the consent of the governed, and it tells you to make a reasoned and rational choice."

Premise Two: The NEPA process can support the decision-making process, but it is not the process itself.

The primary mechanism through which respondents felt NEPA contributes to decision-making is through disclosure requirements. This includes disclosure both to the public and also internally within an agency. One respondent explained, "I don't think on day one, if I had gone to the senior staff and said, this is what we should do, they would have said OK." The respondent continued to explain that the process helped to make clear to the rest of the agency what was clear to him on day one.

> **A:** "It certainly helps you make a decision. It questions your decision inasmuch as if all the effects that you're disclosing are negative for your decision and they're positive for other things, then it would force you to reconsider or at least come up front and say, well but, in spite of that, this is the decision and that's why."
>
> **Q:** "So it's just informative."
>
> **A:** "Right. And it helps you. It helps you by forcing you to disclose the environmental consequences or facts. You can't be blindsided, I don't think, or you shouldn't be. It reduces the chances because you've already spelled out all the consequences."

Premise Three: The NEPA process has little to no bearing on actual decisions.

Some respondents clearly expressed that the NEPA process had very little to do with decision-making within their agencies. When asked about NEPA's role in the decision-making process, one respondent replied:

> "It's necessary but not sufficient. It's necessary because no federal agency will propose Congressional funding of a project that hasn't been vetted with the public and with potential sponsors of course . . . It's not the decision process."

Some respondents echoed the sentiment that NEPA adds more work that is often irrelevant to decision-making. Others suggested that the best decisions are often so obvious to decision-makers that the NEPA process is actually irrelevant to decision-making.

> "And I think the decision was made beforehand that we're going to close them and that was it. Even though we got lots of people saying we need to keep it open because they liked to drive it . . . so sometimes you get pre-decisional."

These sentiments were unearthed in all agencies.

> **Q:** "What makes a good ROD?"
>
> **A:** "Well, you want to explain what the project is, and you, I think the main thing is the rationale for the decision. You want to make a decision, then you want to say why you made this decision. You know, why did you, you know, why was this decision selected over the other alternatives? Rationale to me is the main thing. If you have good rationale, that's good. And a lot of times you can put your own rationale in it without even tiering back into this right here (holds up EIS)."

Q: "So, what's an example of that? If the rationale isn't necessarily based on the EIS, what else could it be based on?"

A: "Based on personal experience . . ."

Q: "So in cases like that, the EIS just becomes a hoop you have to jump through, it's not really useful in the end, if you're already like, 'I know that this is how it works, I've been here 18 years.'"

A: "Right, exactly, yeah. Yeah. Well that's, sometimes that is right. Sometimes you're just doing a document to support what you think is right anyway."

What impact has NEPA actually had on serving its intended purpose of more environmentally appropriate decisions?

The explanatory power of each of the above premises varies by circumstance. Future research could reveal under which conditions each premise tends to hold true. This would be useful for determining the situations in which NEPA serves its intended purposes versus those in which it generally does not. Relevant circumstances might include mission of the agency, the general procedures in place within any specific unit in which a project is being considered, the social and political context of the area, and the experience, attitudes, and beliefs of the individuals involved in the project.

"We do this analysis for a purpose. We learn things. And if it's a good process, and you've really developed a good range of alternatives, you should expect some surprises."

"Did we make a better decision because of NEPA? Again, I would say that no, but that's because of this park, this superintendent . . . this is just an incredibly resource-oriented park, so we don't do things that, we don't need NEPA to keep us in line, basically."

"NEPA is really just a label for the planning and analysis that I think goes on anyway. But what it does if that's the case is imposes more rigor or process to the determination. But I don't, in my experience, I haven't seen any big initiatives that willy-nilly were decided by the manager."

Q: "What was the main reason for including _____ in the preferred alternative?"

A: "Political."

Q: "Purely political."

A: "Yeah. It wasn't just in terms of the community, it was that if we didn't include it, there was a chance that a local politician or Senator or Congressperson would do what happened to Olympic National Park and just shut them down."

What role does the decision-maker play in the NEPA process prior to making and/or approving the final decision?

Our interviews with ID team leaders and decision-makers revealed a number of ways in which decision-makers can be involved in NEPA processes, ranging from active participation in most aspects of the work undertaken by the ID team to providing occasional feedback on updates received through intermediary staff.

The level of involvement varied within agencies and also between them. The National Park Service had one of the most decentralized decision-making processes. Decisions were generally made at the level of the Superintendent or other management staff. The official "decision-maker," the regional director who signed the ROD, was only peripherally

involved in such processes. The decision-maker would receive updates on projects, through the regional NEPA coordinator, and occasionally provide feedback. RODs were written by park staff and reviewed by the decision-maker along with the executive summary.

In the USACE, technical experts typically make most decisions throughout the development of a project. The final decision-makers are actually members of Congress for most Corps projects. The civilian NEPA coordinator is in charge of coordinating NEPA documents, but a high-ranking Army officer signs off. The officer is typically involved in public involvement processes, but rarely exerts meaningful influence on the details of project development.

The role of the decision-maker varied within our Forest Service case studies. One decision-maker held occasional meetings with ID teams, but stayed largely separate from the project until the end. Another was intimately involved in all aspects of the project, more or less guiding the ID team through the entire process. Yet another helped to formulate alternatives then stepped back so as not to bias any analyses.

Decision-makers also reported playing several roles within the BLM. While in several cases the decision-maker waited until the end of the process to closely examine the ID team's preparation of the EIS and alternatives, in one the decision-maker was an active participant in how the project was shaped.

We uncovered varying influences of decision-makers upon the NEPA process. One ID team leader explained that the decision-maker can sometimes limit the scope of alternatives that may have otherwise been considered if following only NEPA guidance. In other cases, there was concern that the ID teams were using decision-maker input to attempt to create the "perfect" or "silver bullet" alternative for the decision-maker at the expense of fully fleshing out all options (see *Alternatives Development*). Overall, our interviews suggested that ID team members felt better about the products they produced when there was greater involvement of the decision-maker during the process.

How do the findings differ between agencies?

Few of the trends discussed above were unique to any one agency. Table 3.11.2 provides a breakdown of the agencies in which certain themes surfaced.

Table 3.11.2. Comparing trends in decision-making across agency respondents.

Decision-making trends	FS	NPS	BLM	USACE
Decision apparent before process in full swing. NEPA is purely procedural.	X	X	X	X
Disclosure forces more careful consideration of certain aspects than might otherwise take place.	X		X	X
Helps build consensus for a decision (both internally and externally), even though decision may be clear at outset.		X		
Just a label for things that happen anyway, no real value added to decision-making process.		X		X
Decision made for reasons completely separate from NEPA process (usually political reasons).	X	X		
NEPA process can play a large role in improving decisions.	X		X	X
Official decison-maker removed from most a aspects of NEPA process.	X	X	X	X
Official decision-maker actively engaged in most aspects of NEPA process.				

3.12 RESEARCH INTERESTS OF RESPONDENTS

We asked each respondent about what they would most like to research about NEPA processes. Table 3.12.1 contains a summary of their responses.

Table 3.12.1. Agency personnel's research interests regarding NEPA processes.

Research interest	FS (8)	NPS (6)	BLM (9)	ACE (2)	Total (25)	%
What public involvement techniques are the most effective? Alernatives to current strategies.	3	4	0	0	7	28%
Differential understandings of NEPA – the public's view of the NEPA process vs. internal agencies' views of the process vs. actual intent?	3	2	1	0	6	24%
Commonalities in successful vs. unsuccessful projects.	2	1	1	1	5	20%
Organizational structures – who does the work? Centralized vs. decentralized? How are teams formed? What are the relative efficiencies of different arrangements?	2	2	1	0	5	20%
How to streamline the process without sacrificing the quality of the decision.	2	2	1	0	5	20%
What difference does NEPA actually make in the decison-making process? In other words, how is NEPA used in the decision process? How does it really intersect with how decisions are made?	1	2	0	1	4	16%
Litigation – who is filing NEPA-related suits and why? What have the outcomes been and what is their significance?	1	1	2	0	4	16%
Interagency coordination (1) How to make processes across collaborating agencies more similar. (2) Relationship between Fish and Wildlife Service and NEPA processes of other agencies.	2	0	1	0	3	12%
Techniques for coming up with Purpose and Need and associated objectives.	1	1	1	0	3	12%
Cumulative effects – what is reasonable data collection for past events and foreseeable future?	1	0	0	2	3	12%
Incremental decisions throughout the NEPA process – how do they affect final decision? When are decision points? Which decisions are critical? How does the order of events influence outcomes?	1	1	0	0	2	8%

Table 3.12.1. Agency personnel's research interests regarding NEPA processes (continued).

Research interest	FS (8)	NPS (6)	BLM (9)	ACE (2)	Total (25)	%
How scope is defined/how are boundaries placed on studies in different agencies?	0	1	0	1	2	8%
How does FS appeals process impact implementation?	1	1	0	0	2	8%
Developing/applying clearer criteria or thresholds for evaluating alternatives.	1	1	0	0	2	8%
How to generate better baseline data.	1	1	0	0	2	8%
Differing views and processes associated with environmental justice across agencies.	0	0	1	1	2	8%
Disentangling NEPA from the decision-making process.	1	0	0	0	1	4%
Impacts of political decisions on the NEPA process and decision-making.	0	1	0	0	1	4%
How to improve training.	0	0	0	1	1	4%
Internal agency views and opinions about public involvement processes.	0	0	0	1	1	4%
Relationship between NEPA and ESA.	1	0	0	0	1	4%
How do budgets come about for compliance?	0	1	0	0	1	4%
Making documents more readable.	0	1	0	0	1	4%

CHAPTER 4

4.1 DISCUSSION

This chapter discusses the key lessons that have emerged from this study, broken down into four sections. The first section discusses practices that were highly valued by all respondents who were aware of them. The second section shares lessons regarding practices whose value may be debatable according to different respondents. These first two sections highlight practices that might be worth implementing on trial bases as well as issues that may warrant further investigation. The third section highlights common inefficiencies or challenges in NEPA processes found in each of the agencies. The fourth section discusses key questions that have emerged from the research that remain unresolved. The chapter concludes with a brief discussion of the role that science can play in moving toward the resolution of these unknowns.

Highly valued practices

Certain practices were consistently valued by respondents who had been exposed to them. These practices related to the structure of ID teams and to specific techniques for public involvement. Because these practices only emerged in some of our interviews, we were unable to solicit the opinions of all respondents regarding them. However, they received unanimous support from those we did ask.

Dedicated ID team: In one of our case studies in the BLM, the ID team was relieved of all duties aside from working on the NEPA process. This was described as a positive experience that expedited the process considerably and reduced stress commonly associated with fitting NEPA work in with other duties. Although budgets were commonly cited as a hurdle to overcome to make this happen, other respondents also endorsed this idea.

Dedicated staff writer: Compilers of NEPA documents often found themselves challenged with having to integrate sections written by multiple people. Moreover, subject matter experts would commonly miss deadlines, often forcing ID team leaders to draft sections outside of their own area(s) of expertise. One project in the BLM had a dedicated staff writer, assigned the task of doing all the writing for the EIS. This person was in charge of communicating with subject matter experts and the ID team leader to put together a coherent document. Participants in this project felt this worked well by making the document more readable and streamlining the process. It also took pressure off of subject matter experts, freeing them up for other tasks. Other respondents looked favorably upon the idea as well.

FWS personnel on ID team: Coordination with the Fish and Wildlife Service was commonly cited as the most difficult interagency relationship to manage in NEPA processes. One of our BLM case studies experimented with having a Fish and Wildlife Service employee on the ID team and found this extremely helpful in heading off potential conflicts and addressing issues associated with threatened and endangered species prior to the official issuance of the biological opinion from FWS. USACE respondents reported that the co-location of an FWS staff member in their regional office helped to streamline their processes considerably. Other respondents also reacted positively to this possibility.

Informal and early public involvement: In general, informal proactive involvement with key constituencies, in separate groups, was consistently highly valued by respondents. This involvement could take the form of site visits, informal meetings, or open houses during the official NEPA process, but was even more highly valued prior to the release of the Notice of Intent. Reported benefits of such techniques included limiting inter-constituency conflict, enhancing meaningful two-way exchanges of ideas between the agencies and constituencies, enhancing trust in the agency, enhancing public perceptions that public comments are actually being considered, engendering public acceptance of project implementation, and increasing the usability of public input.

Practices of variable or questionable value

Other practices received less consistent reviews from our interviewees. While some were differentially valued by different respondents, others were only partially valued or were valued only with caveats attached to them. The utility of others remained largely an uncertainty amongst respondents. These themes represent areas for potential future invesitgation.

Centralized versus decentralized practices: Variable degrees of success were noted with regard to the centralization of certain functions. Drawing upon central offices for specific subject matter expertise and to staff ID teams were generally seen as positives. Meanwhile, relying upon centralized teams to code public comments occasionally caused problems due to a lack of sensitivity to local context and familiarity with the subject matter of the project.

The use of contractors: Contractors were generally seen to be most useful when charged with a discrete analytical task, such as water quality testing or trail mapping. Opinions of contractors in other roles varied. For example, while contractors were often hired to be "neutral" or "objective" facilitators in public involvement efforts, agency personnel commonly reported that this only sometimes made public involvement run more smoothly. Common drawbacks to using contractors included high costs, misunderstandings or disagreements with agency staff, steep learning curves for complicated issues, lack of subject matter expertise, and difficulties with contract management.

Writing the EIS: A number of issues were raised with regard to how EISs actually get written. Most respondents reported using some sort of boilerplate for laying out the EIS. Although this was a dominant practice within our sample that seemed essential to completing the task, many expressed guilt over employing it. NEPA coordinators also believed this to be problematic in some cases, allowing for a false sense of security in such standardization. ID team leaders at times found themselves in the position of having to write most sections of the EIS. This was primarily due to limited time available amongst subject matter experts. ID team leads would then send their drafts out to subject matters asking for comments and revisions. Although the impacts of this practice on the quality of the analyses could not be assessed in this study, the potential is there for introducing considerable bias.

Alternatives development: ID teams struggled to meet the needs of the decision-maker. While some strove to create "the perfect alternative," thus narrowing the decision-making space, others aimed to provide the widest range of alternatives possible. The decision-makers we interviewed preferred the latter, but often remained distant from the work of ID teams, due to other tasks as well as fears of inappropriately biasing the process. Meanwhile, the ID team leaders we interviewed craved greater involvement of the decision-maker throughout the process.

Thresholds: Some respondents desired clearer thresholds for alternatives development and decision-making. The USACE and NPS actually have versions of such thresholds. The USACE often sets clear quantitative targets in their objectives prior to beginning a NEPA process to help them eliminate alternatives. They also have somewhat clearer guidance with regard to selecting which alternative is most appropriate (see section *3.11 Decision-making* for greater detail). In the NPS, the term "impairment," taken from their mission statement, is distinguished from impacts. Impacts may be acceptable, impairment is not. Individual project managers can determine how to distinguish impacts from impairment. Political issues arise, however, when the no action alternative can be viewed as impairment, because it would implicate the Superintendent in mismanagement. Thus, this threshold is not employed to its fullest potential. Similar thresholds, however, might be considered by other agencies for developing, eliminating, and/or selecting alternatives.

Alternatives to alternatives development: Some have suggested that the development of discrete alternatives can be inherently polarizing and counterproductive to efforts to build consensus or public buy-in, as process participants tend to invest in and staunchly defend one particular alternative, rather than considering the broader interests of multiple stakeholders.[1] We asked respondents about the possibility of developing a single collaborative recommendation for the decision-maker in lieu of a list of alternatives. The idea was favored by some for programmatic EISs, in which alternatives often feel rather contrived and meaningless, but generally not favored at the project level.

Common inefficiencies in NEPA processes

The research revealed numerous issues that likely contribute to inefficiencies and confusion in complying with NEPA. Our interviews revealed wide disparities both across and within agencies regarding individuals' perceptions of the purpose of NEPA and how successful NEPA processes can be defined. Results from our limited sample suggest that no consensus on NEPA's purpose or on indicators of success exists in any of the agencies. This begs the question, how can success be achieved if it cannot be defined? Without a shared vision about what NEPA processes are supposed to accomplish, agency personnel are left to follow their own visions, which clearly vary from place to place and project to project.

Similarly, responses varied widely with regard to the intended audiences for the EIS. In some cases, it was clear that ID teams had not explicitly considered the audience for the document. Without a clear purpose or audience in mind, these documents can sometimes serve little purpose other than to document compliance with the Act. This seems a rather limited scope for the hundreds of pages produced, hundreds of thousands of dollars spent, and the tremendous amount of staff time and other resources committed to their production. While NEPA documents are supposed to provide disclosure to the public, no respondent in the study actually believed them to be effective communication tools for this audience.

Litigation, both actual and threatened, permeates all aspects of NEPA implementation. So too do active public dissent and outcry affect how NEPA is utilized. While neither is necessarily directly related to the scope and effects of a given project, both dictate decisions by personnel more so than any other single factor we encountered. Litigation particularly appears to increase document length and drives analyses that may be largely unrelated to the project. Fear of crafting a judicially vulnerable document forces personnel to err on the side of inclusion. EISs are commonly perceived as being more "defensible," though significance is often mitigated away, and EAs often provide as weighty (and lengthy) an analysis. Litigation was most frustratingly reported as "raising the bar" or as "a moving target." With each judicial decision, those charged with NEPA compliance must determine what should be included in the analysis and to what degree. The finding that agency solicitors can play a large role in defining the scope of analyses is further evidence of these challenges and their impacts. While a number of legal questions exist regarding standing, the role of injunctions, burdens of proof, and decision expediency, no streamlining of the NEPA process is likely to be entirely successful without incorporating specific suggestions to address the role that lawsuits and the fear of lawsuits play in NEPA implementation.

Unresolved issues

The research has identified a number of issues that remain unresolved. This section raises key questions related to these issues and briefly discusses their significance. Two types of questions emerged: (1) strategic questions that deserve attention from agency directors that could have strong influences upon how NEPA processes are implemented in the future and (2) questions that can be addressed through further scientific investigation to reveal trends, explanations, and possibly best practices leading to better NEPA compliance and related outcomes.

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[1] See Innes and Booher 2004 for a fuller treatment of this theme.

Discussion

Strategic questions

What is the purpose of NEPA?

While CEQ regulations make clear that NEPA is supposed to be about making "better decisions," only a fraction of our respondents echoed this sentiment. Rather, our interviews revealed a strong tendency for agency personnel to focus upon the procedural aspects of the Act rather than its intended purpose. As a result, ID teams tend to treat NEPA primarily as a hoop to jump through, focusing primarily upon completing the procedural requirements of the Act with as little resistance as possible. In effect, procedural aspects of NEPA (e.g., public involvement, disclosure, a bullet-proof process and/or document that can withstand litigation or appeals) have become ends in themselves. What impacts do personnel's perceptions of the purpose of NEPA have upon NEPA outcomes, in particular upon improving the quality of decisions? Is NEPA a task or is it a tool? If it is a tool, what are realistic uses for it?

What role does/can/should NEPA play in agency decision-making?

The research revealed that decisions can often be made long before the completion of the NEPA process. Clearly, this raises questions about the role of NEPA in decision-making. What does NEPA add to the process? While our study begins to identify some potential answers to this question, further investigation would be necessary to truly understand NEPA's impacts on agency decisions.[2] Such research might be worthwhile prior to answering the bigger strategic question posed above. Some of our respondents suggested that NEPA implementation could be streamlined if it could be "disentangled" from the decision-making process entirely. Would this still meet the intent of the Act?

Questions calling for further investigation

What are the impacts of narrowing the scope of NEPA projects?

Interviews revealed a tendency amongst NEPA implementers to narrow the scope of their projects that are required to pass through the NEPA process. Narrowing the scope of projects limits potential for different angles of attack from groups that oppose agency decisions. It also provides ID team leaders with an opportunity to declare points of contest brought up by the public or other entities as outside the scope of the project. As a result, more narrowly defined projects have greater potential to move through the NEPA process efficiently. On the flip side, narrowing the scope of projects presents certain challenges to ecosystem-scale management, by breaking up the system into smaller pieces.[3] While our interviewees discounted this possibility, suggesting that landscape level management can still occur by disaggregation and sequential implementation of sets of projects, the time scale over which such projects are implemented may limit their effectiveness. Are several smaller NEPA processes more efficient than one larger process that addresses the larger ecosystem? The question remains answered.

Is the NEPA process at odds with adaptive management?

While CEQ regulations suggest that monitoring should take place on all projects in any federal agency in which some form of mitigation is included, only the USACE NEPA guidance documents actually mandate monitoring on projects that have passed through the NEPA process (32 CFR 651.15(b)). While there are other agency cases in which monitoring has actually been explicitly built into implementation plans, respondents from the other agencies suggested that monitoring takes place more or less opportunistically on many projects when funds are available. As a result, little data is available to actually assess the impacts of agency decisions upon the environment or other endpoints of interest, regardless of the various perceived purposes of NEPA.

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[2] Kaiser (2006) empirically studied this question to a limited extent, finding little impact of NEPA processes upon Forest Service decisions.

[3] See also Committee of Scientists Report 1999.

A general sentiment was expressed by respondents that the NEPA process pushes them to make predictions with some reasonable degree of certainty, even when adequate information is not available, rather than allowing them use their expert judgment to adapt and adjust implementation as necessary to achieve a project's purpose and need. Is NEPA inhibiting adaptive management? Can the two be compatible?[4] If monitoring data shows that predictions are inaccurate and a change in action is necessary, will another NEPA process have to start all over again? What role is there for supplemental documents?

EAs vs. EISs: How are outcomes different for different NEPA pathways?

Respondents reported that the choice to produce an EIS instead of an EA is commonly based upon the degree of public controversy and the likelihood of litigation. It is generally perceived that an EIS is more defensible in court. Is this in fact the case? Are there any trends in outcomes based on different NEPA pathways taken on comparable projects? Most respondents felt that EAs and EISs often require a similar amount of work. However, extra efforts to mitigate away significant impacts are common in each document. Does this extra effort pay off in an EIS? What are the key differences between these pathways in terms of factors inhibiting or facilitating the implementation of projects?

How do different sequences of events, particularly alternatives development and public involvement, relate to different NEPA outcomes?

Different sequences were found across our case studies reflecting differences both across and within agencies. Are there any trends in how the order in which NEPA compliance efforts unfold relate to different project outcomes (e.g., public response, litigation, resources spent, staff morale, etc.)?

How do both internal and external misconceptions of NEPA influence NEPA processes and their outcomes?

Misconceptions of the NEPA process held by the public are common, particularly perceptions that public involvement in the NEPA process is a voting forum for particular alternatives. Internally, agency staff tasked with NEPA compliance learn primarily from their predecessors, rather than from official trainings. While these individuals are experienced in NEPA processes, they are not necessarily knowledgeable. Thus, internal agency misconceptions about NEPA may be just as common as external, or public misconceptions. This may be a case of trained incapacities. Further research into both public and agency misconceptions about NEPA could help to identify avenues for improving both agency training and public involvement.

What techniques for involving the public lead to better NEPA outcomes? Can any contribute to diminishing litigation?

While public involvement processes are perhaps the most studied aspect of the NEPA process, this still came up as the topic of greatest interest for future research amongst study respondents. Our literature review (see Appendix B) unearthed only two studies using empirical data to attempt to link public involvement techniques to what might be construed as NEPA outcomes (Denq 1990; Innes and Booher 2004). Most comments were rather based on impressions of participants and/or the authors. Are there any trends with regard to specific techniques and their impacts on public perceptions and/or rates of litigation or appeals?

It was commonly opined in our research that even the best public outreach can be foiled by any one entity that wishes to remain outside the process or is determined to sue regardless of agency efforts. Still, enhancing perceptions of the general public of federal agencies can have many more benefits than merely avoiding litigation, not the least of which is making the work of agency personnel easier and more enjoyable. Are there any techniques that tend to meet with greatest success? Do these vary under different conditions?

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[4] While Phillips and Randolph (2000) studied a small set of EISs and Forest Plans revealing that monitoring plans were commonly included in these documents, less is known about the frequency with which such plans are carried out and how monitoring results are used.

Does the appeals process help or hinder Forest Service decision-making?

Respondents from all agencies expressed curiosity about the Forest Service's appeals process. Internal opinions of the process within the agency were mixed. An analysis of appeals, motivations for them, perceptions of them, and subsequent outcomes of projects could reveal key lessons that could guide future use (or discontinuation) of this practice.

How can the Forest Service limit litigation brought against it following NEPA processes?

As noted above, it only takes one disgruntled entity to bring a lawsuit, regardless of the quality of the agency's decision, the NEPA process, or public involvement efforts. While there is research to support that the NEPA is the most commonly cited statute in lawsuits against the Forest Service (Keele et al. 2006), we were unable to uncover any empirical studies into the specific motivations for them. Indeed, even where the rationale for filing fuels reduction appeals was investigated (Laband et al. 2006), it still remains unclear what motivates litigation, and by which publics. While on the surface, such motivations may appear obvious, the interests that underlie such actions can often be less clear. By bringing these interests to light, a new question can be posed. Can these interests be addressed through other means?

Conclusion: The role of science

Our literature review on the National Environmental Policy Act revealed a surprising dearth of meaningful empirical research of the factors influencing different NEPA outcomes. In order to uncover any trends in outcomes that might be attributed to differential implementation of the NEPA process, an overall theoretical and methodological approach to the problem is called for. A three-phased study seems appropriate: (1) identification of key themes of interest; (2) a quantitative, large sample size exploration of trends in relationships between these key themes; and (3) qualitative investigation (with potential quantitative elements) of the underlying reasons for the observed trends.

The preliminary study described herein and associated literature review are linked with the first step in the process. Further discussions with NEPA practitioners can further refine the key variables of the study. These variables should be defined in terms of outcomes of interest and independent variables that might exert influence upon those outcomes.

Our research has begun to shed light on potential outcomes of interest through identifying views of success and failure that exist amongst NEPA participants. Potential outcomes of interest might include:

- Public perceptions of the agency, of the process, of the action
- Appeals and results of appeals
- Litigation and results of litigation
- Time spent
- Money spent
- Staff morale
- Staff views of degree of success

Each of these outcomes can be treated both quantitatively and qualitatively, though quantitative representations will be most useful for identifying overall trends in relationships with hypothesized explanatory variables.

Explanatory, or independent, variables can also be treated quantitatively and/or qualitatively. Quantitative explorations can reveal overall trends, while qualitative explorations can investigate the underlying reasons for the observed relationships between variables. This study revealed a number of potentially meaningful explanatory variables, including, but not limited to the following:

- ID team structure (#, turnover, subject matter)
- Involvement of decision-maker
- Centralized processes
- Contractor use
- Public involvement techniques
- Sequence (especially public involvement vs. alternatives development)
- Writing process (who writes, boilerplate, intended audience)
- Document decisions
- Reported stumbling blocks or difficulties in NEPA compliance
- Internal misconceptions of NEPA processes
- Motivations for appeals, legal challenges

We propose that any future study should incorporate a mixed methods approach – identifying quantitative trends and examining their underlying explanations through qualitative process tracing and (if appropriate) quantitative survey research to test hypotheses. The initial quantitative portion of such a study will require a large sample size to at least partially account for the myriad confounding factors that can exist outside the process (e.g., differential political climates, controversial subject matter, etc.). A statistically representative sample of all EAs and EISs of interest over the last five to ten years might be appropriate (with possible stratification across potentially confounding factors or moderating variables). Seeking quantitative trends will lead to the delineation of more refined research questions that ask why or why not certain relationships between the independent and dependent variables were or were not observed. Answers to these questions can then be pursued through further investigation. Quantitative survey research might be able to answer certain questions that can be treated through deductive hypothesis testing, while qualitative research will be more appropriate to understand the more detailed nuances of the findings or to explore issues for which hypotheses could not be easily developed.

The literature is replete with opinion pieces, singular case studies, and theoretical propositions. Through empirical research, some specific uncertainties within the NEPA process that have been debated since the Act was signed into law might move toward some degree of reasonable resolution. This preliminary effort represents a first step in this direction. In addition to identifying practices of differing utility within the NEPA processes of four federal agencies, it has uncovered critical areas for further exploration that could reveal patterns relevant to enhancing NEPA processes in terms of both their efficiency and their outcomes. While NEPA compliance is commonly viewed as an impediment to mission achievement, further investigation of the these themes could bring to light mechanisms for moving such compliance into a more complementary role in agency planning processes and project implementation.

APPENDICES A

APPENDIX A: DECISION-MAKER SCRIPT

Introduction

Overview of our study:

- Comparing NEPA processes across agencies: FS, BLM, NPS, USACE
- Differences
- Definitions of success
- Innovations
- What works well and what doesn't
- Sharing results

Topics for discussion:

- This specific process and your opinions about it
    - We'd like to understand the personal opinions of those we are interviewing. We understand that these may not represent those of the entire agency

Recording:

- We'd like to record your answers if that would be OK with you. Our main goal in doing this is to keep our conversation flowing and to be sure we don't miss any important information. We will not attribute any quotes to you without your prior review and permission. We don't intend to attribute any quotes in this research and could offer you a promise of confidentiality if you'd like.

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1. Before we begin, I'd just like to get a sense for what you see to be the purpose of the NEPA process?

2. How you would define a successful NEPA process?

3. When did you first become involved in the NEPA process? To what extent?

4. To what degree did you communicate with the ID team during the EIS production process?

    a. What influence(s) did you exert on the EIS process?

5. At what point did the final decision become clear?

6. What aspects of the final decision remained flexible throughout the process?

7. To what degree did you confer with the ID team or others in making the final decision and constructing the ROD?

8. Did the ID team recommend one specific course of action?

9. If you could do it all over again, what would you do differently?

10. Is there anything you feel worked particularly well within this NEPA process?

11. If not already answered . . . Was there anything that went particularly badly during the process?

12. What would you most like to learn about other agencies' NEPA processes?

13. If budget were no issue, what type of study of the NEPA process would be most interesting/useful to you?

14. If you had the power to change anything about NEPA, the CEQ regulations, or your agency's NEPA guidance, what would you most want to change?

15. Clearly, numerous small decisions are made throughout the NEPA process. How do you feel these related to the final decision? Was the proper decision already clear prior to completion of the EIS? At what stage did it become clear what the most appropriate alternative is?

    a. Do you feel that NEPA is a decision-making process or is it something different?

16. How do you feel the public participation process went in this process? How did public comments influence you final decision?

17. Forest Service Only: How do you feel about the Appeal Process within the Forest Service? Do you think it is a useful thing? How so? How does it influence EIS production in any way?

18. How big of a concern is the fear of litigation? How does this impact the NEPA process?

APPENDIX A: ID TEAM SCRIPT

Introduction

Overview of our study:

- Comparing NEPA processes across agencies: FS, BLM, NPS, USACE
- Differences
- Definitions of success
- Innovations
- What works well and what doesn't
- Sharing results

Topics for discussion:

- This specific process and your opinions about it
    - We'd like to understand the personal opinions of those we are interviewing. We understand that these may not represent those of the entire agency

Recording:

- We'd like to record your answers if that would be OK with you. Our main goal in doing this is to keep our conversation flowing and to be sure we don't miss any important information. We will not attribute any quotes to you without your prior review and permission. We don't intend to attribute any quotes in this research and could offer you a promise of confidentiality if you'd like.

---

1. Before we begin, I'd just like to get a sense for what you see to be the purpose of the NEPA process?

2. How you would define a successful NEPA process.

Go into EIS-specific questions here. See attached list and table. Then return to the questions below.

3. If you could do it all over again, what would you do differently?

4. Is there anything you feel worked particularly well within your NEPA process?

5. *If not already answered . . .* Was there anything that went particularly badly during the process?

6. What would you most like to learn about other agencies' NEPA processes?

7. If budget were no issue, what type of study of the NEPA process would be most interesting/useful to you?

8. If you had the power to change anything about NEPA, the CEQ regulations, or your agency's NEPA guidance, what would you most want to change?

9. Clearly, numerous small decisions are made throughout the NEPA process. How do you feel these relate to the final decision made by the decision-maker? Is the proper decision clear by the time it gets to that stage? At what stage does it become clear what the most appropriate alternative is?

    a. Do you feel that NEPA is a decision-making process or is it something different?

10. How big of a concern is the fear of litigation? How does this impact the NEPA process?

EIS specific questions

Walk through the process, use attached tables. Notes should include who, how, and any specific issues related to carrying out the task. The following checklist should be asked about (who, what, how, when, why, and specific problems or successes for each — details should be included in the table):

____ Developing the purpose and need
____ Decision about what NEPA pathway (document) to choose
____ Notice of intent
____ Tiering
____ Staffing (How teams formed? Anything missing from team?)
____ Contracting
____ Centralized aspects
____ Division of labor
____ Scoping
____ Involvement of other agencies
____ Development of alternatives (number, reasonableness, external involvement)
____ Environmental analyses (scope, cumulative effects)
____ Public involvement (scoping)
____ Public involvement (commenting)
____ Response to public comments
____ Response to agency comments
____ Writing/editing
____ Revisions
____ Record of decision
____ Chain of command
____ Role of decision-maker
____ Final decision
____ Internal response to the decision
____ External response to decision
____ Implementation (or barriers to implementation)

Order	Date	Task/event	Notes (who, what, how, why, issues/problems)

APPENDIX A: NEPA COORDINATOR SCRIPT

Introduction

Overview of our study:

- Comparing NEPA processes across agencies: FS, BLM, NPS, USACE
- Differences
- Definitions of success
- Innovations
- What works well and what doesn't
- Sharing results

Topics for discussion:

- Overarching questions about NEPA process: success, innovations
- Some specific questions
- Some opinion questions:
    - We'd like to understand the personal opinions of those we are interviewing. We understand that these may not represent those of the entire agency
- Case studies
- Training manuals

Recording:

- We'd like to record your answers if that would be OK with you. Our main goal in doing this is to keep our conversation flowing and to be sure we don't miss any important information. We will not attribute any quotes without your prior review and permission. We don't intend to attribute any quotes in this research and could offer you a promise of confidentiality if you'd like.

Overarching questions

1. As you've now had the chance to digest a bit of what we are trying to accomplish, have you had any other thoughts about what you'd most like to learn about other agencies' NEPA processes?

Follow up . . . if you think of anything during the interview, please let us know.

2. If budget were no issue, what type of study of the NEPA process would be most interesting/useful to you?

3. What do you see as the purpose of the NEPA process?

4. How would you define a successful NEPA process?

5. Are there any particular aspects of NEPA that you find are commonly stumbling blocks within your agency?

6. Are there any particular innovations those within your agency have tried that have worked out particularly well?

7. **DOI only:** We understand that new guidance documents may be forthcoming. We'll probably discuss some of this in our more specific questions, but we'd love to get a sense for any major changes that will take place. Could you give us a general sense of how NEPA guidance within you agency is about to change? Will there be any philosophical changes?

Specific questions

8. We'd like to ask you about some specific aspects of the NEPA process as practiced within your agency. Before we do that, we have a question simply about the order of a few of the specific events in your agency's NEPA process. ***Present table.***
    - Development of the initial proposed action
    - Development of preliminary alternatives
    - Notice of Intent
    - Public involvement
    - Interagency coordination
    - Staffing (ID team development or otherwise)

What typically happens first?

Is the order always the same? Is any aspect of the order always the same? Is there an ideal?

We'd like to ask you a bit more about some specific aspects of the NEPA process.

EIS triggers:

9. First, we'd like to ask you about how a field manager knows when an EIS is appropriate. Have you had any common problems with this?

10. We've reviewed the guidance and have noticed the "catch all" statement – does this cause any problems? SHOW GUIDANCE DOCUMENT.

    a) How often is it used to justify an EIS?

Categorical exclusions:

11. How satisfied are you with the list of categorical exclusions included in your guidance document?

12. Have you had any particular problems in this regard?

13. Are the catex's clearly defined enough to be useful? Are they too vague? Too prescriptive?

14. How often are EAs performed for other reasons even though a project might fall under a categorical exclusion? What are the other reasons?

Staffing and responsibility:

15. How are staffing decisions made?

16. Have there been any particular problems associated with staffing of NEPA processes?

17. Are any pieces of the NEPA process centralized in your agency (as opposed to being performed by those in field locations)? Which? Is this common?

18. What role can contractors play within the NEPA process? What roles do they typically play?

    a) What do you see as the pros and cons of using outside contractors?

Scoping:

19. We've talked briefly about the order of the scoping process already. Are there any particular challenges that you see commonly arising during scoping?

Alternatives:

20. Are there any particular problems that tend to pop up during alternatives development?

21. How does an alternative get ruled out for further consideration as "unreasonable?"

Public involvement:

22. We've also talked about the order in which public involvement takes place. Are there any particular problems that commonly arise with regard to public involvement in NEPA processes?

23. What do you feel are the most important aspects of public involvement to contribute to a successful NEPA process?

24. Do you feel that certain techniques work better than others for public involvement? How so? For what purposes?

25. How do you determine which comments to respond to? What does "substantive" really mean?

Interagency coordination:

26. Do you find any particular problems commonly arising in the NEPA process with regard to interagency coordination?

27. Do you feel that requirements for interagency coordination add too much to the NEPA process?

28. When is interagency coordination most helpful? Are there times when it is overly cumbersome?

29. How are conflicting views of different agencies addressed?

Tiering:

30. Is tiering regularly used? Why or why not? At what levels within the agency? How does the agency use programmatic EISs, as opposed to those for particular projects?

31. Does tiering actually save time and/or resources when it is used?

Monitoring:
32. Does any monitoring typically take place on implemented projects?

33. Are there any particular challenges associated with monitoring?

Training manuals

Could we get copies of any official training manuals that might exist for those involved in the NEPA process in your agency?

Potential case studies.

Type	Location	Summary	Success	Contacts
Recreational				
Restoration/fire				
Active management				

Activity	Usual	Ideal	Other
Development of the initial proposed action			
Development of preliminary alternatives			
Notice of Intent			
Public involvement			
Involvement of other agencies			
Staffing (ID team development or otherwise)			

APPENDIX B

APPENDIX B: NEPA BIBLIOGRAPHY

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