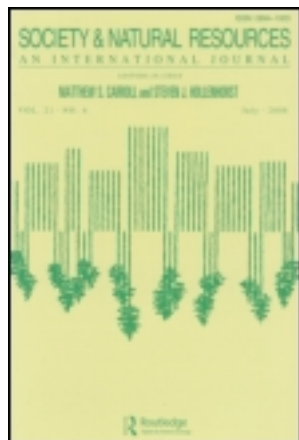


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Perceptions of Legally Mandated Public Involvement Processes in the U.S. Forest Service

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Perceptions of Legally Mandated Public Involvement Processes in the U.S. Forest Service

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Results from an agency-wide survey of U.S. Forest Service personnel indicate that respondents in our sample engage in National Environmental Policy Act (NEPA) public involvement processes primarily to accomplish two goals. The most commonly supported goal was to inform and disclose as mandated by the act. The other goal reflected interests in managing agency relationships with various, often adversarial, publics. Respondents expressed variable views about how to conduct public involvement. Most favored informal meetings and/or formal agency-endorsed strategies, though some respondents favored strategies associated with avoiding or containing the public. Qualitative results suggest that variable views concerning how to go about public involvement are related to individual views of planning in general, the public, and administrative structures and processes. The study raises the question of which factors—the beliefs of those conducting public involvement, or the strategies of public involvement employed—most powerfully impact the outcomes of public involvement processes.

Keywords bureaucratic values, environmental planning, national environmental policy act, public involvement, public lands, rational planning

The values held by those working in natural resource management agencies are likely an important determinant of administrative outcomes (Meier and O'Toole 2006). These values have been shown to be particularly important in determining the types of public involvement processes employed (Yang and Callahan 2007). In the U.S. Forest Service, research shows that the attitudes, values, and beliefs of agency personnel influence project-level decision making, the goals and strategies pursued in

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NEPA processes, and the ways public involvement processes are conducted (MacGregor and Seesholtz 2008; Predmore 2009; Stern et al. 2009).

Forest Service views on public involvement can be highly variable. Agency personnel may view public involvement negatively, focusing on the challenges with increased exposure to public scrutiny and arbitrating potentially competing interests; risks to agency credibility; costliness; loss of agency control over decision making; or inappropriate political influence on decisions (Beierle and Cayford 2002; Irvin and Stansbury 2004). Alternatively, they may view public involvement as a process that is beneficial to the agency in a number of ways. It may be viewed as a process that eases conflict and allows the agency to achieve positive outcomes, or as a way to incorporate public values and local knowledge in ways that may improve decisions (Irvin and Stansbury 2004; Wengert 1976; Wondolleck and Yaffee 2000). Public involvement may also be viewed as a means to achieve beneficial process-oriented outcomes, such as educating and informing the public, gaining support and legitimacy for decisions, social learning, improved agency–public relationships, or the development of a more engaged public (Conley and Moote 2003; McCool and Guthrie 2001; Beierle and Cayford 2002; Parkins and Mitchell 2005; Wondolleck and Yaffee 2000).

Regardless of how individuals view public involvement, those working in the U.S. Forest Service are required by law to involve the public in planning (Multiple Use Sustained Yield Act 1960, National Forest Management Act 1976, Federal Land Policy and Management Act 1976, National Environmental Policy Act 1969) and have considerable discretion regarding the strategies they use to meet these public involvement mandates (Mortimer 2002). Agency managers may receive conflicting messages about how to involve the public in planning. On the one hand, the President's Council on Environmental Quality (CEQ) suggests that managers mainly respond to scientifically or legally couched "significant" or "substantive" public comments, while other agency guidance suggests the consideration of values through collaborative efforts (Federal Register 2008; Predmore, Stern, and Mortimer 2011). Given these conflicting guidelines and the discretion afforded managers, it is difficult to know which goals agency personnel pursue during public involvement (Alexander et al. 1999). This study fills this gap by quantitatively and qualitatively exploring Forest Service perspectives regarding NEPA public involvement.

Planning Frameworks, the "Public," and NEPA Public Involvement

Perceptions of NEPA public involvement are likely influenced by a variety of factors. Chief among these are planning frameworks, views toward the public, and agency administrative processes and structures (Fiol and Huff 1992; King et al. 1998). Hudson (1979) suggests that planning frameworks can be boiled down to two categories: rational planning, and alternatives to rational planning, for which there are many terms and variations, like ecosystem management (Cortner and Moote 1999), coordinated resource management (Moote et al. 1997), and collaborative adaptive management (Norton 2005). Although there are certainly subtle distinctions between these planning approaches, we focus broadly on the main distinctions between rational planning and these various alternatives, which we refer to as post-rational planning.

Different planning frameworks are linked to different beliefs about the public's ideal role in planning. Rational planning is based on a belief that the scientific and

technical expertise of agency experts equips them to make decisions on behalf of the public interest. This leaves little room for the public to directly influence decision making (Dryzek 1997; Predmore 2009). Strict adherents to a rational planning paradigm can view public involvement in a number of ways. They can see it as a procedural requirement, as an opportunity to educate the public, or as a means to influence the public's reactions to agency decisions. Less strict adherents to rational planning may view public involvement as a process in which the public provides information that contributes to expert decision making or as a process where the public serves as a watchdog of what is still considered an expert decision-making process (Dryzek 1997; Weber 1999).

In contrast, those who align with post-rational planning paradigms typically acknowledge that planning decisions are not just scientific but also normative. As a result, planning decisions should not only consider the values of scientists but should also give strong consideration to the values of the public (Cortner and Moote 1999). With this in mind, post-rational planning frameworks typically grant greater influence to the public in planning, emphasize community-government partnerships, and can go as far as accommodating direct public participation and consultation in decision making, or attempting to involve citizens in ongoing, inclusive adaptive management efforts (Folke et al. 2005; Norton 2005; Weber 1999). Ultimately, rational and post-rational planning frameworks entail different beliefs about how much power the public should have in planning, with post-rational planning paradigms entailing a more substantive role for the public in planning or decision making.

Different beliefs, or constructions, of the public are also likely to influence agency views on public involvement. Lipsky (1980) showed how "street-level" bureaucrat's constructions of their "clients" could drive the allocation of services. Yang (2005) directly addressed the question of whether administrators' constructions of the public alter the level of influence citizens are granted in planning. She found that when administrators view citizens as trustworthy, they are more likely to increase the public's role in administrative processes and more effectively involve publics. Similar connections appear in Forest Service management. Predmore et al. (2011) showed that when agency personnel view the public as adversarial, extreme, or scientifically and technically competent, they may feel compelled to make subsequent communications in NEPA processes more scientifically and technically complex.

Administrative Structures and NEPA Public Involvement

Public involvement is embedded in broader agency processes and structures, and the way these processes and structures are interpreted likely impacts individual perspectives on public involvement (Taylor and Van Every 2000; Predmore 2009; Stern et al. 2009). Agency employees operate within a variety of incentive and accountability structures that vary according to the vantage point of the individual within the agency and the tasks with which they are charged (Predmore 2009; Stern et al. 2010a). Under the influence of these structures, public involvement can be viewed as an opportunity to improve agency decision making, a chance to foresee and mitigate conflict, a distraction from scientific management, or a burden that slows the process toward meeting performance targets (Stern and Mortimer 2009; Stern et al. 2010a).

Among many potentially influential administrative structures, those associated with NEPA may have particularly strong implications for agency views on public involvement. Specifically, NEPA structures may alter agency beliefs about whether positive outcomes can result from these processes (Innes and Booher 2004). Early NEPA public involvement, called scoping, is typically initiated after the agency has articulated a clear purpose and need for action (Stern and Mortimer 2009). Starting public involvement with an objective already in mind may limit the degree to which the agency can negotiate during public involvement, and potentially frustrate interested publics that seek to alter planning objectives and outcomes (Germain et al. 2001; Predmore 2009). These initial limitations may be compounded later in the NEPA process when public comment is focused on the various alternatives to the proposed action. Focusing public comment on alternatives often leads to debates about different positions embodied in those alternatives. This focus on positions, as opposed to stakeholder values or concerns, may lead to intractability and stalled planning processes (Daniels and Walker 1996; Swanson 1994).

Given all the factors at play in public involvement—ideas about planning frameworks, the public, and agency structure and processes—there is potential for widely variable views on public involvement within the agency. Our objective in this study is to explore and describe agency views on NEPA public involvement. We quantitatively explore agency views on public involvement using data from a representative, agency-wide survey. Qualitative data are used to help understand and describe the variability found in our quantitative data.

Methods

We report results from an online survey of Forest Service personnel involved in NEPA activities administered in May 2008 (Stern et al. 2010a). Survey questions were derived from an extensive literature review on NEPA and from the results of a pilot study that examined NEPA processes across four federal land management agencies (Stern and Mortimer 2009). This article focuses on two batteries of closed-ended questions that explore agency personnel's perceptions of the goals of NEPA public involvement and their views toward different strategies for involving the public. Open-ended comments were also solicited.

Our sample was taken from a Forest Service database developed in a previous study that aimed to identify all employees involved in Forest Service NEPA activities (Management Analysis Inc. 2007). We extended 6,277 e-mail invitations to complete the survey, from which we received 3,321 completed surveys (for more detail, see Stern et al. 2010a). After accounting for nonresponses due to retirements, absence during the survey completion period, and invalid e-mail addresses, we calculated an adjusted response rate of 54.4%, which can be considered excellent for an online survey (Sheehan 2001). Response rates were similar across all nine regions of the agency and the Washington, D.C. office (Stern et al. 2010a).

Over 94% of survey respondents were actively involved with completing NEPA processes (see Stern et al. 2010a). The other 6% worked solely in an advisory capacity for NEPA activities. Of those active in NEPA processes, 68% served on interdisciplinary teams (ID teams) that complete environmental analyses and conduct public involvement. Almost 14% of respondents worked in a hybrid role, sometimes serving on ID teams and sometimes providing advice to others within the agency on NEPA compliance. Twelve percent of respondents were "line officers," the agency's official

decision makers. Their level of engagement in the NEPA process is variable. They may oversee the process and encourage timely completion, attend meetings at key junctures in the NEPA process, and/or participate in public involvement efforts. Taken as a whole, the data we collected primarily reflects the perceptions of those most active in NEPA public involvement processes. Differences between the perceptions of those holding different positions within the agency are discussed elsewhere (Stern et al. 2010a; 2010b).

We supplement our quantitative results with a qualitative analysis of data collected from open-ended comment boxes. Five comment boxes were distributed in the survey following batteries of closed-ended questions. The qualitative results presented in this study rely on 854 comments received in two comment boxes. These comment boxes followed batteries of questions concerning how to define success in NEPA processes and the goals and strategies for NEPA public involvement. Open-ended responses were iteratively coded to identify and clarify common themes (Miles and Huberman 1994). Qualitative analysis was *not* conducted to draw conclusions about which perceptions of public involvement were more or less common among our respondents. Although we attempted to link qualitative coding to quantitative survey responses, this effort was unproductive for two reasons: (1) many respondents did not provide qualitative responses; and (2) those respondents that did provide qualitative comments often covered a variety of topics in their comments. As a result, our qualitative results are *only* intended to describe the variable perceptions of public involvement found in the quantitative results and to suggest some reasons why this variation existed.

Results

NEPA Public Involvement Goals and Strategies

Respondents were asked to rate the extent to which eight statements reflected their personal opinions of the primary goals of NEPA public involvement within the Forest Service (two anchor points: 1 = *not important*, 7 = *essential*) (Table 1). We also asked respondents to rate their personal opinions of the effectiveness of eleven public involvement strategies (two anchor points: 1 = *least effective*, 7 = *most effective*) (Table 1). On average, respondents felt that all goals listed were of some importance to NEPA public involvement, as the mean score of each was above a neutral score of four. Respondents' opinions on the most important goals of public involvement are reflective of two widely agreed upon legal requirements of NEPA: disclosure of environmental effects, and allowing the public to comment (Sec. 102 [42 USC § 4332]). Broader social goals often associated with post-rational planning—easing conflict, compromise, and a larger role for the public in the process—were viewed by most respondents as secondary goals of public involvement. Although not overwhelmingly positive about any one strategy for public involvement, respondents most consistently favored starting public involvement early, having interactive meetings, informal outreach to specific individuals or groups, and the collaborative development of alternatives.

We used exploratory factor analysis with principle components extraction (Varimax rotation) to identify latent constructs underlying responses on the goals of public involvement and the strategies for successful public involvement (Tables 2 and 3). By examining the covariance of each of the variables in the study,

Table 1. Mean scores of NEPA public involvement goals and strategies

Goals of public involvement	Mean	Strategies for public involvement	Mean
Full disclosure of environmental analyses	6.30	Beginning public involvement as early in the NEPA process as possible	5.84
Allowing the public the opportunity to comment on projects	6.21	Interactive meetings in which dialogue takes place between Forest Service employees and the public about a project	5.62
Soliciting information from the public that will improve the analysis	5.83	Informal outreach with specific individuals or groups (e.g., conversations, small meetings, site visits) prior to the official start of the NEPA process	5.33
Educating the public	5.01	Informal outreach (as described above) throughout the NEPA process	5.24
Negotiating and/or compromising with stakeholders to achieve a mutually agreeable course of action	4.71	Collaborative processes in which all interested parties are invited to work together toward alternatives development	5.10
Allowing the public to develop an alternative or alternatives through collaborative processes	4.65	Meeting with different interest groups separately, rather than all together, whenever possible	3.93
Easing conflicts between stakeholders	4.48	Holding open public meetings as frequently as possible	3.91
Discouraging litigation or appeals	4.24	Town hall-style public meetings where a presentation is given and public comments are then made and recorded	3.60
		Using an external consultant to manage public involvement	3.31
		Limiting the use of open public meetings as much as possible	3.20
		Waiting until preliminary alternatives are developed to initiate formal public involvement	3.18

Table 2. Goals of NEPA public involvement factor loadings

	Component 1: Relationship management	Component 2: Disclosure and improvement
Easing conflict between stakeholders	0.817	0.166
Negotiating and/or compromising with stakeholders to achieve a mutually agreeable course of action	0.778	0.182
Discouraging litigation or appeals	0.736	−0.257
Educating the public	0.542	0.254
Allowing the public the opportunity to comment on projects	0.136	0.799
Soliciting information from the public that will improve the analysis	0.197	0.762
Full disclosure of environmental analyses	−0.030	0.758
Allowing the public to develop an alternative or alternatives through collaborative processes	0.535	0.505

Note. Each construct is made up of the items with bold-faced factor loadings under each component.

exploratory factor analysis allows for a consolidation of individual survey items into groupings that reflect single ideas about the goals of public involvement and appropriate strategies.

Two latent constructs (accounting for 59% of the total variance in the data) were extracted from the goals of NEPA public involvement data (Table 2). Each construct is made up of the items with bold factor loadings under each component. The first latent construct (or component) reflects a perception that a goal of NEPA public involvement is to ease conflict, avoid avenues of legal recourse, educate the public, and negotiate with the public in decision-making. This grouping of variables reflects perceptions that adversarial agency–public relationships exist; appeals and litigation are likely, conflict is a possibility, and negotiation will be required to reach agreeable solutions. Further, these variables reflect a belief that the agency should strategically manage NEPA public involvement to improve agency–public relationships through education, negotiation, or compromise. The inclusion of educating the public with these variables suggests a perception that agency–public relationships would be improved if public knowledge of the issues at hand were more in line with the knowledge held by agency personnel. We labeled this goals construct *relationship management*. Cronbach's alpha ($\alpha = .720$) indicates the internal reliability of this construct.

We named the second goals construct *disclosure and improvement* ($\alpha = .710$). This construct reflects the need for adequate disclosure of environmental effects, allowing the public a chance to comment, and using public comment to improve analyses. Educating the public covaries to a lesser extent with variables included under *disclosure and improvement*. This suggests that some respondents view education less as a way of managing agency–public disputes and more as a step that might improve the public's ability to contribute to agency planning efforts. *Disclosure and improvement*, unlike *relationship management*, encompasses aspects of the NEPA process that are clearly required by law or are reflected in the language of the act.

Table 3. Results of exploratory factor analysis on the strategies for NEPA public involvement data

	Component 1: Formal exchange	Component 2: Informal exchange	Component 3: Avoidance/ Containment
Holding open public meetings as frequently as possible	0.832	-0.022	0.064
Town hall-style public meetings where a presentation is given and public comments are then made and recorded	0.666	-0.151	0.361
Interactive meetings in which dialogue takes place between Forest Service employees and the public about a project	0.541	0.360	-0.111
Collaborative processes in which all interested parties are invited to work together toward alternatives development	0.531	0.379	-0.105
Informal outreach with specific individuals or groups (e.g., conversations, small meetings, site visits) prior to the official start of the NEPA process	0.027	0.809	0.103
Informal outreach (as described above) throughout the NEPA process	0.013	0.798	0.079
Waiting until preliminary alternatives are developed to initiate formal public involvement	-0.053	-0.257	0.692
Meeting with different interest groups separately, rather than all together, whenever possible	-0.037	0.409	0.544
Limiting the use of open public meetings as much as possible	-0.517	0.072	0.502
Beginning public involvement as early in the NEPA process as possible	0.407	0.497	-0.293
Using an external consultant to manage public involvement	0.219	0.166	0.398

Note. Bold-faced factor loadings signify individual items included in each construct (component).

Factor analysis revealed three latent constructs in the strategies for public involvement data that account for 51% of the variance in the data. Two variables—starting NEPA public involvement as early as possible, and using external consultants—did not clearly covary with items comprising the three latent constructs identified in factor analysis. We labeled the first latent construct *formal exchange*. This construct includes traditional and formal strategies for public involvement that are designed to facilitate either one-way or two-way communication between the public and the agency ($\alpha = .622$); each of the included variables is explicitly listed by agency guidance as potential public involvement tools (U.S. Forest Service 2007). The second latent construct clearly represents *informal exchange* strategies for public involvement ($\alpha = .746$).

We labeled the third factor *avoidance and containment*. Cronbach's alpha was low for *avoidance and containment* ($\alpha = .375$), indicating that these variables do not strongly hold together statistically. The three variables that make up *avoidance and containment* are, however, significantly and positively correlated ($p < .001$ for all combinations). Because these variables are weakly associated, we only discuss *avoidance and containment* as a loose association of variables, and do not use the construct for any statistical tests.

Avoidance and containment strategies are those that either reduce the frequency of agency–public encounters or reconfigure those encounters to narrow (contain) the scope of discussion. Limiting public meetings and waiting to initiate public involvement may reduce the frequency of interactions. Waiting until alternatives are developed contains or narrows the scope of agency–public dialog to consideration of those alternatives. Separate meetings with interest groups may allow the agency to control the subject matter of these interactions. Additionally, using separate meetings, as opposed to inclusive public meetings, avoids the threat of grandstanding by members of the public and the associated risks for agency image and credibility.

Meeting with different interest groups separately cross-loaded to some degree with the *informal exchange* factor. Although the item shows better statistical fit with the *avoidance and containment* factor (including it in the *informal exchange* factor drops Cronbach's alpha by nearly 20%), its cross-loading suggests that some respondents may support meeting separately for different reasons. Additional survey questions were not posed to differentiate respondents' intentions for wanting to meet separately with interest groups.

Each goal and strategy was supported by at least some respondents (Tables 4 and 5). In Tables 4 and 5, respondents were grouped with respect to their responses to individual variables in the goals and strategies data using the following rules: A score below the midpoint was counted as “not important” or “not effective”; a score of 4 (midpoint) was counted as “neutral”; and a score above the midpoint was counted as “important” or “effective” for a variable. In grouping respondents with respect to the goals constructs and strategies constructs, respondents were placed in the “important” or “effective” category if they were in favor of at least one of the included variables and in favor of or neutral toward the others; the rule was reversed to categorize respondents into the “not important” or “not effective” categories. Respondents were counted as “neutral” if they either gave all included variables neutral scores or were in favor of some included variables and opposed to others.

More than 90% of respondents believed that *disclosure and improvement* is an important goal of NEPA public involvement. Within this construct, more than

Table 4. Percentages of respondents that viewed the different indexes of the goals of public involvement, and the individual goals statements that comprise those indexes, as not important, neutral, or important

	Percent of respondents		
	Not important	Neutral	Important
Relationship management	9.8	35.8	54.4
Easing conflict between stakeholders	21.4	24.7	53.9
Negotiating and/or compromising with stakeholders to achieve a mutually agreeable course of action	19.5	19.5	61.0
Discouraging litigation or appeals	27.7	21.7	50.6
Educating the public	11.6	18.6	69.8
Disclosure and improvement	1.7	7.4	90.9
Allowing the public the opportunity to comment on projects	2.5	5.2	92.3
Soliciting information from the public that will improve analysis	6.9	9.0	84.1
Full disclosure of environmental analysis	2.4	4.7	92.9
Allowing the public to develop an alternative or alternatives through collaborative processes	20.8	22.0	57.2

90% of respondents viewed allowing the public to comment and disclosing environment analysis as important goals of public involvement. *Relationship management* was a less widely accepted goal of public involvement, though more than 50% of respondents showed support for the concept. Among public involvement strategies, *informal exchange* strategies had the broadest support from respondents, followed by *formal exchange*, and lastly *avoidance and containment*. Beginning public involvement early in the NEPA process and using interactive meetings that encourage agency–public dialog were the most widely supported individual items. Limiting public meetings and using external consultants to manage public involvement processes were the least favored strategies.

We conducted chi-squared tests to explore relationships between perceptions of goals and preferred strategies. Only one statistically significant association was observed. Respondents that supported *relationship management* as a goal of public involvement and did not support *disclosure and improvement*, were significantly more likely to support *avoidance and containment* strategies than respondents that supported *disclosure and improvement* goals (Pearson chi-squared = 9.3, $p = 0.009$). The sample size of respondents that fit the criteria of supporting *relationship management* and not supporting *disclosure and improvement*, however, was small (61 respondents).

Our quantitative results provide an overall picture of how NEPA public involvement is viewed by our study respondents. Results indicate that *disclosure and improvement* is a widely acknowledged goal of these processes, and that *relationship management* is a secondary goal that is accepted by a small majority of respondents. Some respondents favored public involvement strategies that are collaborative,

Table 5. Percentages of respondents that viewed the different public involvement strategies indexes and the individual statements that comprise those indexes as effective, neutral, or not effective

	Percent of respondents		
	Not effective	Neutral	Effective
Informal exchange	11.3	16.2	72.5
Informal outreach with specific individuals or groups (e.g., conversations, small meetings, site visits) prior to the official start of the NEPA process	12.9	15.6	71.5
Informal outreach (as described above) throughout the NEPA process	13.5	16.7	69.8
Formal exchange	8.1	51.4	40.5
Holding open public meetings as frequently as possible	24.5	27.8	37.6
Town hall-style public meetings where a presentation is given and public comments are then made and recorded	39.2	26.7	34.1
Interactive meetings in which dialogue takes place between Forest Service employees and the public about a project	7.5	11.2	81.3
Collaborative processes in which all interested parties are invited to work together toward alternatives development	17.7	17.2	65.1
Waiting until preliminary alternatives are developed to initiate formal public involvement	53.8	19.0	27.2
Meeting with different interest groups separately, rather than all together, whenever possible	35.8	27.9	36.3
Limiting the use of open public meetings as much as possible	55.5	26.0	18.5
Beginning public involvement as early in the NEPA process as possible	7.2	9.8	83.0
Using an external consultant to manage public involvement	52.9	23.9	23.2

inclusive, and include frequent agency–public interactions, while a smaller number of respondents favored narrowing the scope of public comment, restricting public influence, and reducing the frequency of agency–public interactions. In the next section, we present qualitative results that provide tentative explanations for the variation observed in the quantitative data.

Perceptions of Public Involvement and Planning Frameworks

Variable views about NEPA public involvement are at least in part related to different beliefs about natural resource planning frameworks. Differences were particularly evident in respondents' views about the appropriate balance of power in planning between the public and agency experts. Respondents noted that different opinions exist in the agency concerning this balance. One respondent stated that it is not always clear "whether the agency believes it should allow the public to be the decision maker, or whether the agency should be the decision maker." More specifically, the respondent questioned whether NEPA should "allow management of public lands by the people, or allow public input into management strategies developed by the scientists and specialists of the agency."

In addition to simply acknowledging different beliefs about planning, open-ended comments suggested that some respondents aligned more closely with rational planning, while others more closely associate with post-rational planning. Preferences for rational planning were articulated through comments stating that experts should be trusted to make decisions:

[Asking for public comment in Forest Service NEPA] is like going to a medical doctor about an illness, have the doctor prescribe a medication that would heal the illness, then send the doctor's recommendation out to the general public and ask them if you should take the medication.

Respondents that associated closely with rational planning expressed frustration at having to involve the public in planning and were irritated by what they believed was an overemphasis on meeting public demands and a lack of focus on science. From their perspective, the agency had "lost focus" on "professional management," and the agency spent too much time "accommodating the demands of a small minority," instead of "concentrating on sound resource management." For these respondents, planning should be a scientific endeavor, and departures from this ideal amount to replacing "science and rational thinking with public sentiment." The implied result according to these participants is that public influence leads to less effective decisions.

Certain characterizations of the public, specifically characterizations that questioned public competence and motives for participation, were often found in association with a preference for rational planning. Publics were sometimes characterized as "unaware" or "uninformed." This type of characterization was connected with statements that the public should be "required to show their qualifications," "demonstrate how that comment pertains to the project," and "produce evidence supporting their claims." Some respondents also questioned the motives of the public, noting that they "care little about the resource," are "ruthless," and have no interest in "constructive" or "honest" participation. Other respondents stated that

the public has entrenched interests with “zero interest in meetings, compromise, or cooperation,” and care “only about stopping our management.” These characterizations of the public reinforce a belief in rational planning through the following logic: If publics have no intention of honest participation, cannot change, and are typically an impediment to planning, then there is no clear reason for agency personnel to allow citizens to strongly influence administrative decisions.

Other respondents expressed beliefs in post-rational planning paradigms. These respondents made statements about the need to show a “genuine interest in the views and values of all interested parties,” and even more importantly, to show how “their comments will be seriously factored into the decision.” Some of these respondents even questioned the logic of rational planning. For example, one respondent expressed frustration at what he viewed as the continuing rationalist assumption that if the agency were to “explain what it is we want to do, and show it’s based on all kinds of good science, then people will totally agree and wonder why we haven’t done it sooner.” The respondent’s statement highlights a key assumption embedded in rational planning discourse—that conflict is the result of misinformation or lack of information and that more information leads to consensus (Dryzek 1997; Sarewitz 2004).

Not surprisingly, those respondents that aligned with post-rational planning approaches also held different views about the public’s ability to constructively participate, as well as motives for participation. They argued that some publics are knowledgeable and competent and therefore should have influence in planning:

The old paradigm doesn’t work where “we” are the best experts on a particular project. Many of our current stakeholders are highly educated and have access to tons of scientific information now. We need to work collectively to develop projects.

Those respondents with post-rational planning beliefs also described the public as “willing to collaborate in good faith.” These publics were connected with the “chance for collaborative progress,” as well as public “buy-in” or “agreement” regarding the final decision.

Qualitative results suggest that agency personnel who maintain negative characterizations of the public and believe in rational planning are more likely to view NEPA public involvement as primarily a *disclosure and improvement* exercise in which *relationship management* has inappropriately become a prominent goal in NEPA planning. Further, these respondents appeared more likely to support *avoidance and containment* strategies. Although these beliefs about planning preferences appear straightforward, it must be noted that there were several respondents who expressed multiple beliefs about planning and the public in their open-ended comments. These inconsistencies suggest that other variables, perhaps context-specific variation associated with each public involvement process, may cause some beliefs to be prominent one moment and not the next.

Perceptions of Public Involvement and Administrative Structures

Views on planning in general and public involvement are also influenced by the administrative structures that agency personnel encounter in their daily work. Like other studies, we found these structures are interpreted in a variety of ways by those working in the agency (Predmore 2009; Stern et al. 2009). NEPA in particular was

identified by respondents as an administrative process that may limit what they believe can be accomplished through associated public involvement processes (Innes and Booher 2004; Predmore 2009).

I am a strong believer in collaborative planning, but once NEPA begins, the defined process leaves little room for collaboration.

Some respondents reported beliefs that NEPA limits what can be accomplished in public involvement in very specific ways. One common reaction in open-ended responses was that “we’re confusing processes,” that “collaboration isn’t NEPA, and that NEPA itself is “not a project planning process.” According to respondents, one reason NEPA is not collaborative is that it is structured in such a way that the public must register “specific concerns about a project” after a “specific proposal” has been forwarded by the agency. In other words, public involvement is initiated after the agency has articulated “a clear and precise purpose and need statement.” These remarks suggest that the structure of NEPA, as viewed by these respondents, mainly accepts comment on management means (how to do the project) and does not allow for comment about what ought to occur on the land (ends).

When NEPA is viewed in this way, embedded public involvement processes become less meaningful as opportunities for agency–public discussions of management objectives. Some respondents noted that once NEPA is initiated, the “agency always already has a desired outcome in mind.” As a result, public involvement within NEPA processes may have little influence on decision making because “there is no decision space or room for flexibility.” These respondents tended to view NEPA less as a planning process and instead as only “a policy that lays out a procedure for documenting environmental effects.” Other research has verified this view among some agency personnel (Stern et al. 2010b). When the structure of NEPA is viewed in this way it limits public influence on planning and reinforces a more rational planning framework, making public involvement “just something we [NEPA implementers] have to check off as part of the NEPA process.”

Some respondents interpreted NEPA differently and downplayed the limitations the broader NEPA structure places on public involvement. Often, these respondents viewed NEPA public involvement as only a small component of a long-term or “ongoing” commitment to communicating with the public. Respondents that viewed NEPA in this way did not view public involvement as only a place for debate about management means, but rather expressed that the agency and the public can also engage in discussions about ends, or “the overall goals of what they [the public] want their forest to look like.” The following quote illustrates how this perception can alter ideas about the proper scope of public comment:

Involving the public prior to the start of the NEPA process, i.e., during identification of the purpose and need for action and development of a proposed action, can make a big difference in the effectiveness of public involvement. [Otherwise] we end up debating environmental effects when it is really the purpose and need that some folks have the most concern with.

Respondents who situated NEPA public involvement within a broader agency effort to communicate and interact with the public shared what they felt can be

achieved through NEPA public involvement: improved agency–public “trust,” “improved relationships,” better “responsiveness,” and the development of a “common understanding.” The following quote illustrates how a positive view of what can be accomplished through NEPA public involvement is often contingent on viewing these processes as a part of larger, continuous agency efforts to communicate with the public:

Local involvement builds relationships, trust, and enhances communication, that later [sic] makes project-specific NEPA successful. NEPA is one method of communicating that meets legal requirements, but it is not our only voice. Good project development and implementation requires successful communication, understanding different perspectives, and a willingness to adjust with more information. This occurs both within the NEPA process, and outside of it, and is always more successful when both occur.

Although different beliefs about natural resource planning, the public, and administrative structures may explain some of the variability among agency personnel about how to conduct public involvement, other contextual factors are also in play. According to respondents, their preferences for public involvement strategies are project dependent and may be influenced by local history of agency–public relationships, the level of controversy surrounding the proposed action, the complexity of the proposed action, the geographic scale of the proposed action, or the uniqueness of the proposed action. As a result, at least some of the variability observed in the quantitative results may be a by-product of the varying contexts in which respondents implement NEPA.

Conclusions and Implications for Future Research

Forest Service personnel in our sample pursue two main goals in NEPA public involvement processes: *disclosure and improvement* and *relationship management*. The emphasis on *disclosure and improvement* suggests a strong awareness of and perhaps commitment across the agency to completing those aspects of NEPA public involvement that are legally required. Widespread agreement on this main goal may be a by-product of the high levels of public scrutiny that agency NEPA procedures have faced in recent years (Broussard and Whitaker 2009).

The relative deemphasis on *relationship management* as a goal for NEPA public involvement is more difficult to explain. The most obvious explanation is that *relationship management* is not legally mandated. Other factors, however, may also be in play. For example, consider management context. Some respondents engage in NEPA processes that are simple and have little public interest, and as a result they may view relationship management as unnecessary. The beliefs of individuals regarding planning, the public, and administrative structures may also influence views toward relationship management; respondents who believe in rational planning, hold skeptical views of the public’s willingness and ability to contribute to planning, or feel that the structure of NEPA constrains public involvement, may not believe the agency can or should pursue relationship management in NEPA. Qualitative analysis showed that even these explanations for deemphasis of relationship management are simplistic. We know, for example, that some respondents held rational

planning beliefs and negatively characterized the public yet rated relationship management as highly important. For these respondents, relationship management was viewed as something that had to occur in order to move forward with any sort of management action. As with NEPA in general, there is no agreed upon singular goal for NEPA public involvement, and there are a variety of beliefs and contextual factors that influence individual perceptions of public involvement goals (Stern et al. 2010a).

Given the differences within our sample on the goals of NEPA public involvement, it is not surprising that respondents also expressed variable views about how best to conduct public involvement. Because formal exchange strategies are endorsed by the agency, the moderately high support this strategy received was expected (U.S. Forest Service 2007). Informal exchange strategies, however, were more commonly supported by respondents, despite not being explicitly endorsed by the agency. In light of their high popularity in the agency, informal exchange strategies have the potential to become an increasingly important aspect of agency–public communications. According to Elliot et al. (2003), these informal strategies may also be beneficial as a means to reshape any existing negative agency and public characterizations of one another.

Although it received less support than other strategies, *avoidance and containment* may warrant further research attention to more clearly define the construct and explore patterns in its presence in the agency. Attempts might start with an examination of other research that has also identified containment as a public involvement strategy (for example, Few 2001). Further investigation into the intentions behind specific strategies, such as meeting with different interest groups separately, could also more clearly distinguish the concept.

Potential ramifications of strategies associated with avoidance and containment merit agency attention. One potential drawback of avoidance and containment is that NEPA public involvement becomes only a procedural hoop. If and when these processes are recognized as such by the public, it may lead to long-term problems with agency credibility, a loss of public trust, and even deteriorating agency effectiveness. Research suggests that involvement efforts with no intention of agency power sharing can lead to public frustration and in some cases active opposition to planning efforts (Few 2001; Stern 2008; Yang and Callahan 2007). Additionally, if the agency chooses to avoid and contain the public, there will be few opportunities to change any existing negative agency or public characterizations of one another. When these negative characterizations remain stable, conflict tends to persist (Elliot et al. 2003).

The wide variability in beliefs within the agency about planning, the public, and existing agency administrative structures sets the stage for future research. The agency would benefit tremendously from research that controls for planning context (i.e., public controversy, complexity of the project, region) and examines the relationships between the beliefs we have identified and the outcomes of public involvement processes. Future research might also examine the origins of beliefs about public involvement. To what extent do employees enter the agency with strong beliefs about public involvement? How do they change over time through agency trainings and experience? The lack of clear coherence between goals and strategies also begs the question of whether outcomes of NEPA processes are more strongly influenced by the public involvement strategies employed or the beliefs of those employees that conduct them.

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