

PERSPECTIVES FROM THE FIELD

The National Environmental Policy Act Shouldn't Make Decisions Any Harder Than They Are Already

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When the National Environmental Policy Act (NEPA) was passed in 1969, the promise to Americans was that, prior to government making a big decision, an environmental analysis would be prepared upon which the decision could be informed. It was assumed that, with this analysis, the environment would be considered and valued at the same level as economic and social issues. Conducting such an analysis added a layer of complexity to the process of making decisions, but Americans were requiring that the environment be placed on par with other considerations—our water, air, landscape, and so much that our the environment embraces are so important to us we that we link them to our freedom, our collective ownership, our patriotism and even our faith and our deepest spirituality when we sing the nation's praise from our most cherished poets, from Woody Guthrie's "This Land Is Your Land" to nature's images in Irving Berlin's "God Bless America" to John Denver's "Rocky Mountain High." They all express our love of country and what we love most about our country.

Ultimately, NEPA is about government remembering and always being reminded that it is supposed to use care and to take care of our lands and that the community who loves these resources is watching.

The analysis NEPA requires has two purposes: to *inform decision makers* within government of the likely consequences and effects of their contemplated courses of action and to *inform citizens* of the likely, if not certain, impacts. In addition, a decision maker has to balance, and explain how he or she balances, those impacts against the need for a project, whether it's a highway or a dam or the regulation of agricultural pesticides. NEPA is designed to offer a sounder

foundation for government action. Used properly, it should lead to wiser decisions by government and to more effective advocacy and citizen participation in decision-making forums.

It was never the design of the environmental impact analysis, any more than of NEPA itself, for it to be a process within or through which decisions would be reached. However, good decisions and good government are furthered by developing and disseminating good information as required by NEPA.

Much of what follows in this article describes the experiences we had at the Washington Department of Transportation (WSDOT) a decade ago when I first became Secretary and did something the staff found extraordinary: as an upper-level decision maker for WSDOT, I chose to read a recently completed environmental impact statement (EIS). Finding the EIS extraordinarily difficult to read, dense with information written to appease perhaps lawyers and fellow EIS preparers, we identified a significant gap between what NEPA requires and what we as an agency were doing in that EIS document. Here, we discuss this gap and what we tried to do about it.

In addition to presenting a document that can be understood by decision makers and the public, to truly meet NEPA's goals, good decisions must be attached to a *learning process* fueled by good information.¹ The experience at WSDOT, in the years 2001 and immediately thereafter, drove this point home. Lacking an iterative process whereby one learns as one engages in analysis, the lengthy EIS process can result in solutions to problems that may no longer exist once the EIS is complete. This subject also is discussed further.

The Reader-Friendly EIS

As a decision maker within WSDOT, I looked to the NEPA process in general, and the EIS or environmental

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assessment (EA) in particular, to assist me in understanding the issues and benefits associated with the projects that I was to champion. To fulfill that mission as decision maker, I attempted to read my first EIS in my new role but was stopped cold: the EIS was unwieldy, written using obscure language, and devoid of meaningful graphics. I struggled to wade through it. The staff was unaccustomed to senior agency officials actually *reading* EISs. What I found when I read these EISs (and EAs, as well) was that these documents were clearly not designed actually to be read by a decision maker and certainly not designed for the public to read either.

Information in support of decision making is only as useful as its *communication*. Council on Environmental Quality (CEQ) regulations require that an environmental impact statement be “concise, clear and to the point,” “analytic rather than encyclopedic,” and focused on issues chiefly on in proportion to their significance [40 CFR 1502.1 and 1502.2 (CEQ, 2005)]. Further, EISs are supposed to be written in plain language and use appropriate graphics so that *decision makers and the public* can readily understand them (15022.3).

And here lies the gap: it is between what NEPA requires and what the NEPA practitioners at the time were continuously producing for large, complex projects; the distance between how EISs were being prepared and how that complex information was being presented.

It is clear to me that most senior-level decision makers ordinarily were *not* even trying to read these documents. If they were, I believe they would take the same action that I did as at WSDOT. I called in a frustrated, talented team and told them to develop a better way to convey the information contained in these documents or I would not approve them. Here, as everywhere else in the agency, we would strive for and achieve candor and openness with the public about agency challenges. These values became the core tools of communication within WSDOT and indeed fueled the entire strategy of WSDOT’s management and mission. For NEPA, as we closed that gap, we brought EIS documents into better alignment with what we believe are NEPA’s aspirations. We coined the term “reader-friendly EIS” to describe this shift in thinking.

WSDOT’s push for the reader-friendly EIS arose from a very specific problem: the Puget Sound area faced aging, failing infrastructure and had an expanding population and a booming economy, so WSDOT needed to galvanize action to fund projects, buttressing legislative and taxpayer

support for their financing and construction. A fresh approach was required to meet this challenge—an approach to communications with the public that would underscore the agency’s effectiveness and accountability and thereby help to gain the trust of the citizens.² One of the tools we used, among others, was the reader-friendly EIS.

In WSDOT’s efforts to bring EIS documents into better alignment with the goal of communication, we required an entirely different organization and different layout for our new EIS approach, and, when it was completed, it frankly didn’t look much like a then typical EIS.

The first endeavor to receive reader-friendly EIS attention was a project of enormous complexity and controversy: the replacement of the earthquake-vulnerable Alaskan Way Viaduct carrying an elevated State Highway 99 (and roughly 110,000 vehicles on an average weekday) along the downtown Seattle waterfront. With the publication of the *SR 99: Alaskan Way Viaduct and Seawall Replacement Project Draft Environmental Impact Statement* (WSDOT, 2004), WSDOT’s reader-friendly initiative was officially launched. The EIS appeared in 11 × 17-inch format, rich with illustrations, graphics, and explanatory sidebars that immediately found readers in area libraries and public officials’ offices, as well as in agency cubicles.³ This unusual EIS conveyed the benefits and impacts of the Alaskan Way Viaduct (AWV) Replacement Project in plain English that anyone could understand, with graphics that were dense with information but easy to digest. The document was created with the public in mind and, whenever possible, focused on the benefits and impacts that would be experienced by people: drivers, ferry riders, pedestrians, and bicyclists; individuals, families, and businesses.

Meanwhile, WSDOT more generically developed a reader-friendly EIS tool kit that includes examples and guidance for engaging a reader, making the document visual, and keeping the document concise and focused. As part of furthering the mission of NEPA, the tool kit not only stresses the attributes of the document itself but also makes a host of suggestions about the formatting and accessibility of the underlying information and analysis through the use of website tools and other techniques.⁴

Over the same period, WSDOT staff and consultants pushed for EIS analysis and documentation in reader-friendly mode on several other significant—and some very large and complicated—projects, including the Interstate 90 (I-90)–Snoqualmie Pass East, the I-5/State Route (SR) 202 Interchange, and the SR 520 Bridge Replacement Project.⁵

It is worth noting that, in part because of its different appearance and layout, it was very difficult to get the AWW EIS through the regulatory regime, though ultimately WSDOT was successful. To achieve this success took several years and the coauthor's personal engagement with the assistance of the regional Federal Highway Administration (FHWA) office to obtain approval from FHWA headquarters in Washington, DC. The CEQ even chimed in. Although the first WSDOT reader-friendly draft EIS was well received by the public and elicited widespread favorable industry comment,⁶ it was a rocky road to get it to a Record of Decision. The heart of the difficulty, viewed from WSDOT's perspective, was the huge bureaucratic resistance from FHWA legal staff as to the documents acceptability for *legal sufficiency*, which seemed to be judged not against a standard drawn from the seemingly clear guidance of CEQ regulations but from the comfort level of the FHWA's reviewing lawyer that the document adhered to the tone, look, and feel of previous EIS documents that had weathered litigation challenges brought to court on other projects around the nation. According to FHWA lawyers at the time, the audience for the environmental document was a district court judge (though there was a question in our minds about whether even the most seasoned judge could wade through a typical EIS document and undertake to form his or her own judgments about it all meant). For a document to be found legally sufficient, it appeared that it was to be designed first and foremost as a bunker against any risk or prospect of legal shelling.

Agency lawyers at FHWA resisted "reader friendly" because they considered such a document as dumbing down of analysis for the public. Of course, the opposite is true: the idea was to create robust information that the public could understand. To take complex information and convey it in a way that it can be easily understood without losing substance is difficult but exactly what WSDOT believed NEPA required.

In the end, WSDOT prevailed in having its first reader-friendly EIS accepted. It was a hard-won triumph, and one that WSDOT never imagined would be so difficult to secure. In time, it is gratifying to note, the FHWA came to embrace reader-friendly EIS concepts.⁷

The reader-friendly initiative has become standard practice for WSDOT, and such efforts were paralleled by other agencies at the time, while others emulated WSDOT's example and still others got there through independent inspiration. Today there are many stories of EIS outcomes that match or even surpass WSDOT's efforts.

The techniques of reader-friendly approaches to EIS preparation and public outreach are better understood and more widely available than they were 10 years ago when all this started. Accessibility to information has been improved, but there is still more to accomplish.

The EIS Process Supporting Iterative Decision Analysis

Readable documents that effectively communicate good analysis are the foundation, albeit a necessary foundation, for meeting NEPA's promise. However, to truly meet NEPA's goals, good decisions must be attached to a *learning process* fueled by good information. The experience at WSDOT, in 2001 and the years immediately thereafter, drove this point home. Two sources in particular proved helpful and influential in shaping WSDOT's understanding of the power and necessity of iterative, learning-based decision-making frameworks.

The first source was *Engineering and the Mind's Eye* (1992), by engineer and University of Delaware professor Eugene Ferguson, who expounded on the critical roles of visualization and iterative thinking in the practice of engineering. This was an important contribution to thinking about training engineers and furthering their education, but the concepts are relevant to design issues of any kind, including policy design. The second source⁸ is the work by Jeffrey Conklin, *Dialogue Mapping: Building Shared Understanding of Wicked Problems* (2006).

Engineering and the Mind's Eye and *Wicked Problems and Social Complexity* hold many insights and lessons that are directly applicable to environmental impact analysis. At root, the challenge for agencies is to foster a *learning culture* rooted in curiosity, imagination, and collaboration. The study of almost any complex problem informs the development of one, several, or sometimes no best solution, but, more importantly, it contributes to *changing and almost constantly refining the understanding of the problem itself*. Information, evidence, and analysis therefore must be used in an iterative process that constantly develops and shapes the understanding of the problem.

As a decision maker at WSDOT, and mindful that good thinking to apply to decision making and NEPA can be drawn from sources far broader than NEPA-specific guidance, these insights were critical in helping us think through the complex problem of moving people from one place to another. This is especially true in a state that

remains constantly evolving through population growth and economic development, with a state legislature in the background rightfully demanding good results.

The problem with NEPA analysis is that it assumes static physical and decision-making environments. It assumes we can predict perfectly what is going to happen in a dynamic environment and then produce a document that depicts these predictions. Even a well-prepared EIS is only as valuable as the decision process that it contributes to and supports. A key to Conklin's paradigm of a *wicked problem* is that a complicated project *cannot even be understood* except through the process of working through adjustments of the potential solutions. Thus, it is to be expected that the character of proposed actions and potential alternatives will often shift and probably *should* shift during EIS preparation and the decision process into which it is integrated.

Any decision-support tool—NEPA in this case—must always be subjected to critical examination and improvement. If NEPA is not critically examined and carefully bounded by its valuable original purposes, it runs the risk of *obstructing* opportunities that are revealed *as a result of the NEPA process*. Decision makers should be able to leverage information through an iterative process that enlarges and strengthens choices and improves ultimate decisional outcomes. This is a huge challenge to the EIS process as currently practiced.

The potential value of the process becomes straitjacketed, for example, by a *purpose and need* statement that precedes analysis and is often hard to refashion in response to impact analysis. To adjust an early designed *proposed action*, which later begs for refinement as information is developed, often is treated figuratively speaking as a punishable offense. The development of rigid alternatives, which are static and needed to delineate technical analysis, can be the barrier to on-the-ground learning. To adjust alternatives as information and analysis develops, we often are driven, unnecessarily, to restart the process with a new or supplemental analysis. We should be able to refine or hybridize alternatives more nimbly as we better learn possible better courses of action. The metaphor for an impoverished NEPA process is a thoroughbred horse race—finely honed proposed action and a few alternatives, saddled with jockeys in racing silks and spectators' bets already placed, charging out the gate and around the track with punters rooting loudly for their favorite until finally at the finish the winner is sorted out (usually the heavily favored initial proposed action). This is an impoverished result when, by contrast, Win,

Place, Show, and Also-rans should have been hybridized so that a fresh, vigorous horse, not merely the best of the worn, tired horses, could and would have carried the day!⁹

Real life often presents situations that are very hard to resolve in this practical, iterative way. For example, NEPA practitioners often face the circumstance where impact analysis suggests a good course of decision that is slightly different from what first might have been envisioned when analysis began. But to move toward that ideal result may seem to lead to the preparation of a full-scale supplemental EIS that often tediously and exhaustively reexamines, for slightly different points, ground that has been mostly covered the first time around. Practitioners are all too familiar with situations where that reexamination is played out to a level of precision or detail that exceeds the appropriate demands of common sense. This “dread of the Supplemental” can sometimes constrain project proponents from embracing sensible iterations of their thinking. Project *opponents*, on the other hand, fear that the “threat of the Supplemental” will disadvantage larger public purposes and goals. The fear of the Supplemental is one of the main causes of the blame put on *environmental process* for protracted public decision making. If an EIS process—scoping to gathering of evidence to analysis—could accommodate such shifts and continue to provide the necessary information for decision making, there is new reason to be hopeful we can reform the NEPA process without all the hand-wringing over NEPA taking so long when we should instead be defending the fundamental contributions embraced in NEPA for sound decision making.

Strategic and foresighted practitioners can lay groundwork for a foundation so that decision making leads to fresh thinking on actions and alternatives. The issue of how to fit NEPA's environmental impact assessment purposes to settings of dynamic decision making is a wicked problem in its own right. There is no simple answer. Mechanisms for developing the supplemental EIS are familiar, accepted, and sometimes appropriate. Full-scale analysis in EIS level detail *is* sometimes needed and does sometimes square with NEPA's purpose. Sometimes, however, full-scale analysis is not needed, as, for example, when minor adjustments are worked into alternative actions, and full-scale reanalysis is required to the level of initial accuracy and precision, when it is quite plain that many areas of impact will change little, if at all. The marginal usefulness of full-scale reassessment to actual decision making is insignificant in relation to time, cost, and opportunity for derailment. This leads to hardened attitudes that extinguish opportunities for collaboration.

The climate that encourages this sidetracking of EIS comes from much the same framework as the overly cautious approach to legal sufficiency. *Defensive EIS-ing* is like defensive medicine and defensive lawyering—paperwork and procedure trump sense and results. Staff values from agencies outside the proponent agencies creep mischievously through the EIS, sculpting in ways that are contrary to public interest concerns such as fiscal restraint or the appropriate reservation of political decisions to representative bodies. NEPA becomes a venue for stealth *ultra vires* decision making and even for blocking the road to solutions grounded in creativity, compromise, and collaboration.

Commitment to Improved Approaches

The way forward to improved practice to meet these challenges is not to change NEPA itself, because the solutions already lie within the core of the statute: NEPA has from the first been a statute embracing the core value of *common sense* or, as Robert Bartlett (1997) calls it, “ecological rationality” (p. 58). Common sense applied to the NEPA process and the EIS tool will allow flexible supplementation of evidence and analysis, and refinements of purpose and need and of proposed agency action. Revisions and improvements to alternatives to proposed agency action should liberally embrace information and insight gained in the EIS process. *Adaptive management*, an ecosystem-management term, recognizes that the environment is too complex to predict what is going to happen in five years. It often takes five years just to get an EIS completed for a highway or similar projects. I think the practice should adopt some of the principles of ecosystem management [which the CEQ effectiveness study called for over 15 years ago (CEQ, 1997)] and redesign the environmental impact analysis process to be a study, with monitoring built in an iterative process. I know this will drive those lawyers among us crazy who are looking for a Record of Decision with certainty of no more chances to sue. But it is instructive that the NEPA practice itself has proven adaptable to flexible levels of analysis in many situations involving the widespread use of categorical exclusions (which is not clear has served the purposes of the statute) and mitigated findings of no significant impact (FONSI) (which arguably have served those purposes). There may be other approaches that could be built into NEPA practice itself to serve the goals of the statute while reducing the commitment of time and cost. A review of the current approach to NEPA analysis is worthy of a broad discussion. It is perfectly reasonable to cut costs and streamline practice to improve the value of the EIS process to decision makers and to citizens. It is not those who are

opposed to NEPA who should be most in favor of such a discussion, but those who care most about the statute, good government, and better decisions.

Notes

1. Current practice has sometimes led to a false and evasive notion of bifurcation of governmental decision process between the ultimate decision makers and mere staff who are imagined not to make policy. In fact, the responsibility for making good decisions rests at every level of actors within a governmental agency or process; everyone who touches a process—including consultants and advisors and often also including officially nominated or empowered stakeholders—are decision makers in the broad sense of holding both power to mold decisions and accountability for the intelligence and integrity necessary to support good outcomes. The attempt to isolate staff and quasi-sanctioned stakeholder contributors from decision-making responsibility is a dangerous invitation to diminished accountability in governmental processes.
2. Part and parcel of this approach was also the WSDOT *Gray Notebook*, published quarterly since its inauguration in mid-2001, that served to illuminate critical issues of agency and system challenges and performance for legislators and the public.
3. Ten years later, the complicated saga of decision making including the EIS process that supported WSDOT’s SR 99 Viaduct Replacement Program for a bored tunnel and the City of Seattle’s Seawall Replacement Project have been somewhat overshadowed by the engineering/construction challenges that currently find the mammoth 56-foot-diameter tunnel-boring machine awaiting important repairs from its manufacture and its sponsoring joint-venture contractor. This is actually a separate and sequel opera to the grand drama of the project development and decision that resulted in the selection of the design-build contracting team in December 2010.
4. The tool kit can be found at WSDOT’s “Reader-Friendly Environmental Documents” webpage (<http://www.wsdot.wa.gov/Environment/Reader-Friendly.htm>).
5. These and other examples can be found at WSDOT’s “Reader-Friendly Environmental Documents” webpage (see note 4).
6. The Alaskan Way Viaduct Draft EIS won several awards, including Best of Show and International Merit Award by the Society of Technical Communications (2005), the President’s Award for Environmental Excellence by the National Association of Environmental Professionals (2005), and the Gold Award for Technical Studies by the American Consulting Engineers Council (2006).
7. See the FHWA (2006) memo on “Improving the Quality of Environmental Documents,” where the FHWA officially supports the “reader friendly” concepts.
8. These two works and Tufte’s *The Visual Display of Quantitative Information* (1992) were heavily relied upon in WSDOT communication strategies from 2001 onward.
9. A decision process framed solely in terms of fixed alternatives is an invitation to polarized and contentious political processes because it eliminates opportunities for exchange, collaboration, compromise, and negotiation in the quest for hybridization of approaches. This opens up a rich area for evaluating the opportunities for NEPA properly

applied and its risks improperly applied. See Fisher and Ury's *Getting to Yes: Negotiating Agreement without Giving In* (1981), which popularized attention to the differences between resolving disputes from interests as opposed to position. There is a rich vortex of these ideas in contemporary social thought. See, just for one example in the broadest—even global—dimension, *Beyond Intractability* (<http://www.beyondintractability.org/about/sponsors>).

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