

Resource Information and Agency Decisions

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At a recent workshop in New Orleans, attendees asked a number of questions about the validity of their resource information, especially how information supports impact forecasts. I found a number of their questions thoughtful and interesting.

One participant asked if I was recommending that he should discuss impacts when he had little hard information about likely impacts. I told him that, under National Environmental Policy Act (NEPA) guidance, he had to discuss possible impacts as thoroughly as he could. And he should do so even when he had incomplete and unavailable information.

The discussions in that New Orleans workshop eventually focused on **the role of NEPA disclosure information and its relation to an agency's eventual decisions**. As Council on Environmental Quality (CEQ) Regulations, Section 1500.1(C) says, "it is not better documents, but better decisions that count." The focus on better decisions is important. But the CEQ Regulations do not define what is meant by "better decisions." Federal courts, in NEPA litigations, have avoided judgments about an agency's decision. The courts, instead, assess supporting information, testing to see if the agency has taken a hard look at all potential impacts. And then, the courts decide if the agency has clearly disclosed those impacts to all interested and affected parties.

NEPA and the CEQ Regulations cannot guarantee that federal agency decision makers will always make better decisions. The hope is that with better information, an agency's decisions will be better. I share this hope. That is why discussion points 2, 3, and 4 below make recommendations dealing for improving resource information in NEPA documents. I have, however, encountered projects when the final decision did not adequately discuss imperfect resource information nor the associated impact projections.

The following list of NEPA observations are some of the basic ones I address in most NEPA workshops. These observations help both me and workshop participants keep NEPA's broader legal and political role in perspective. NEPA is not a perfect law, but NEPA practitioners need to accept that despite its weaknesses, NEPA is a useful landmark law. Consider, for example, how many features of good NEPA compliance parallel processes within the United States political system. NEPA scoping, for example, is little different from the open and ongoing discourse between the public and its elected or campaigning officials.

Here, then, are some broad NEPA observations. These are often topics for discussion in Shipley NEPA sessions:

- 1. NEPA is more of a political tool than a scientific process.**
- 2. Agency NEPA practitioners need to make their NEPA forecasts with as much integrity and credibility as they can.**
- 3. Practitioners should always be honest about what they know and what they don't know.**
- 4. NEPA does not guarantee good decisions, but if done well, NEPA documents will give agency decision makers sound information.**
- 5. NEPA project decisions do have substantive resource implications even when pure disclosure is the primary NEPA responsibility.**

The following newsletter expands on these five observations. It ends with a brief case study on management of salmon runs in early Medieval Europe and then in the United States.

1. NEPA is more of a political tool than a scientific process.

NEPA is more procedural than substantive. Often members of the public believe the NEPA prevents actions, but it does not. NEPA's political and primary legal function is to provide both decision makers and the public with sound resource forecasts. In this sense, NEPA documents are little different than testimony before a congressional committee

Note the parallels between this congressional process and federal agency decision making. Agency managers are required to initiate NEPA analyses for proposed agency actions. And for most actions, they notify interested and affected parties that an agency action is under consideration. Our elected representatives do much the same when they convene congressional hearings and then announce findings from these hearings to their political constituents and other interested parties.

Scientific information enters the NEPA process when agency resource specialists draw on scientific research as evidence for their resource forecasts. In a similar manner, individuals testifying before congressional committees routinely cite studies, surveys, and other scientific evidence for their comments and recommendations. Hopefully, they are drawing from the "best science."

But resource impact forecasts are where NEPA processes differ from well-structured scientific research methods. Both for NEPA analyses and in congressional committees, the goal is often to forecast future conditions. Agency specialists, for example, are expected to forecast how many salmon will be spawning in a certain river next year or over the next decade. Those testifying before Congress are often asked how a governmental action will affect budgets over the next decade. Or, Congress might ask for estimates about how many people will be eligible for Medicare in 2040.

Notice that both the salmon projections and the economic or Medicare projections are, at best, risky and uncertain.

Numerical forecasts in a NEPA context are difficult to prove. Consider the sample forecasts introduced above. Salmon spawning in future years might depend on how many Chinese or Russian fishing vessels wait at the edge of United States territorial waters, hoping to catch, process, and can every salmon swimming by. Another Congress (years in the future) might even allow increased deep-sea fishing by US fishing trawlers. Uncertainties about the salmon spawning also arise with each year's rainfall totals. The higher river flows, the more likelihood that spawning fish will be successful. Today's Congress cannot control laws to be passed in future Congresses, and no Congress can decide how many Chinese or Russian trawlers can fish in international waters.

This gap between known scientific facts and speculative and uncontrollable future events is just one sign that NEPA's political role is often more powerful than resource information. Good NEPA disclosure does begin with an agency's impact forecasts, but these forecast projections are then published for all interested parties to review. Review comments might ultimately agree with the initial projections, or reviewers might argue that the forecasts are biased and obviously too low or too high. Such arguments are often highly partisan and political.

Agency decision makers (or an administration) do ultimately make a decision, based on both the initial agency projections and reasonable responses to public comments. The final decision often does reflect some adjustments (or compromises) based on the validity of the public's review comments. Such adjustments to an agency's quasi-scientific forecasts are why NEPA compliance inevitably includes political considerations.

2. Agency NEPA practitioners need to make their NEPA forecasts with as much integrity and credibility as they can.

In recommendation 1 above, I suggest that agency resource specialists should strive to make sound resource forecasts. In this sense, they become advocates for the health and productivity of their specific resource. Advocacy is not bad. Who better than a resource specialist to be forecasting conditions when resource information is always less than perfect?

Sometimes, however, a specialist's resource projections are not as persuasive or as credible as they should be. Shipley's workshop on *Clear Writing for NEPA Specialists* addresses this problem. One list introduced in that session includes seven suggestions for specialists to use in making their resource information (and forecasts) as credible as possible. Here are those seven suggestions:

- 1. Choose relevant and understandable measurement indicators for projected impacts.**
- 2. Set clear timelines and an area of potential impacts for each resource.**
- 3. Identify data gaps and uncertainties in baseline information.**
- 4. Choose the best available methodologies for estimating impacts on a resource.**
- 5. Explain the relevance of chosen studies and reports to the site-specific impacts.**
- 6. State and interpret conclusions clearly.**
- 7. Be sure your text clearly and fairly supports your impact conclusions.**

These seven credibility suggestions should help resource specialists provide a convincing chain of evidence for their impact conclusions. Such evidence is what the courts look for if a NEPA document is challenged.

See also Shipley Group newsletter The Shipley News ([Vol. 55\) June. 2007](#)--"NEPA Analysis and the "Best Science" for more information about techniques for choosing and then recording the "Best Science.

3. Practitioners should always be honest about what they know and what they don't know.

Honesty is at heart the basis for the Council on Environmental Quality (CEQ) Regulations, **Section 1502.2: Incomplete or unavailable information**. This section includes a clear mandate:

"1. A statement that such [relevant] information is incomplete or unavailable."

How much clearer could the CEQ Regulations be? It tells an agency and its resource specialists to identify and to discuss incomplete and unavailable information.

CEQ's list of mandates in Section 1502.22 ends with the requirement that an agency specialist evaluate reasonable impacts, based on "credible scientific evidence . . . [not] on pure conjuncture." And this discussion is to be guided by "the rule of reason." Agency specialists have to address impacts as honestly and as clearly as possible, despite missing or unavailable information.

4. NEPA does not guarantee good decisions, but if done well, NEPA documents will give agency decision makers sound information.

Section 1500.1(b) Purpose of the CEQ Regulations best summarizes this fourth observation:

"NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. Most important, NEPA documents must concentrate on issues that are truly significant to the action in question, rather than amassing needless detail."

Notice the reliance in Section 1500.1(b) on having good information available before an agency makes a decision. **Section 1500.1(c)** continues this theme by stating that "it is not better documents but better decisions that count." No definition of "better decisions" exists in either NEPA statute language nor in the CEQ Regulations.

Implicit in the CEQ language is a faith in the power of sound information. I share that faith. Legal review deals primarily with the quality of NEPA documents. In most NEPA litigation actions, courts do

stay away from judgments about the wisdom of a specific decision. As long as an agency uses good resource information and explains its decision-making process, it can make whatever decision it wishes to make. It can, for example, choose an alternative with undesirable adverse impacts as long as it explains its rationale for that decision. These adverse impacts should not violate any of the substantive federal laws; an agency cannot implement an action that violates federal law.

CEQ Regulations, **Section 1502.24: Methodology and scientific accuracy** also addresses the need for sound resource information in all NEPA documents.

5. NEPA project decisions do have substantive resource implications even when pure disclosure is the primary NEPA responsibility.

NEPA as a political law (with a focus on resource impacts) necessarily relies on agencies to make decisions that ensure the health and future productivity of resources. Such decisions are the basis for the six general goals listed in NEPA's Section 101. Goal 1 in Section 101, for example, speaks about "fulfill[ing] the responsibilities of each generation as trustee of the environment for succeeding generations."

Goal 1 and the other five goals validate the role of cumulative impacts as an important NEPA topic. Each isolated agency NEPA decision may have minor impacts. If so, each decision can be as rational and as wise as it should be in its balancing of resource benefits and adverse effects. As the final case study discussed below suggests, even the best agency decisions may result in longer-term cumulative impacts that are undesirable.

Goal 1 and the other five Section 101 goals do suggest a conceptual gap in the NEPA's statutory requirements. As I mention above, neither NEPA nor the CEQ Regulations defines what a "better decision" includes. I believe that NEPA statute language makes agencies responsible for the health and productivity of resources into the distant future. As **Section 1500.1(c)** says: "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."

Section 1500.1(a) in the CEQ Regulations states that "the President, the federal agencies, and the courts share responsibility for enforcing the Act [NEPA] so as to achieve the substantive requirements of Section 101 [of NEPA]." Goal 1, as quoted above, comes from Section 101. In NEPA analyses (at the EIS level), the six goals in Section 101 collectively define what is the environmentally preferable alternative. Agencies need not choose the environmentally preferable alternative, but they should make decisions that balance environmental projections against other decision factors: agency budgets, the statutory agency mission, cost-benefit considerations, and even political considerations.

My reading of both NEPA's Section 101 and CEQ's Section 1500.1 is that agency decisions, defined as "better decisions," should protect the human environment from undesirable harm and, in doing so,

ensure that affected resources will continue to be healthy and productive for future generations. I am repeating this observation because NEPA professionals (and even some valued Shipley colleagues), seem to overlook the substantive nature of the Section 101 goals.

The “conceptual gap” I mention is reflected in some 40 years of case law decisions. As I state above, most federal courts have not chosen to discuss an agency’s NEPA decisions. Instead, the courts have focused on NEPA’s procedural requirements in Section 102, especially Section 102(2)(C). Most courts likely prefer to assess Section 102 requirements because they are clear and easy to measure. Section 102(2)(C) lays out a clear process with steps and a list of required content for NEPA disclosure documents. Courts can test each agency’s NEPA activities against the listed NEPA process steps.

In contrast to Section 102(2)(C), Goal 1 from NEPA’s Section 101, as quoted above, is not easy to verify. The result is that federal courts in their case law decisions often avoid even mentioning Section 101 language from NEPA.

This gap in NEPA compliance processes came up in the New Orleans workshop, when participants asked about times when agencies improperly influenced NEPA analyses and then made decisions that did not adequately protect resources. In my Shipley experience, such improper influence is rare, but consider how subjective many NEPA analysis steps are. And if they are subjective, then political considerations are inevitably present as an agency conducts complex NEPA analyses and then arrives at an ultimate decision about proposed agency actions.

The question in the New Orleans workshop dealt the usefulness of earlier NEPA analyses. Suppose an earlier NEPA analysis (and decision) is available and has possibly useful information for a newly proposed NEPA federal action. Some questions are relevant:

- How old is this earlier analysis? Is it so old as to be useless?
- Is any of its resource baseline information current enough to be useful?
- Do existing site-specific surveys cover possible resource impacts of interest?
- Would more site-specific surveys be desirable, even legally essential?
- Have all relevant agency and public resource questions been covered?

Even well-intentioned NEPA analysts (and their managers) are likely to have different answers to such questions. Such differences of opinion are why some NEPA managers often ask for written opinions from more than one resource specialist when analysis observations are subject to question. Such multiple impact opinions and different resource conclusions are properly part of the NEPA analysis file.

Even more important, a good (defensible) decision document should record and discuss all resource information, especially different levels of available information. Remember, however, that NEPA decisions rely on imperfect or incomplete information.

To repeat, a defensible decision document balances all potential impacts—both adverse and beneficial impacts. The goal is not to avoid all impacts but to show the tradeoffs between productive uses and the protection of valuable resources.

A case study on the role of many minor, but crucial decisions

International management of wild salmon is a good example of thousands and thousands of individual decisions that led to the destruction of productive salmon runs in both Europe and the United States. Unfortunately, many of the individual decisions were deemed unimportant and minor, but the long-term impacts on salmon runs have been adverse and largely irreversible.

If you are interested in this case study on salmon, I recommend David R. Montgomery's *King of Fish: The Thousand-Year Run of Salmon* (Cambridge, MA: a Westview Book, published by the Perseus Book Group, 2003). I reread Montgomery's book as I was gathering ideas for the current newsletter. The decline and eradication of salmon runs is a dramatic example of individual and governmental actions that collectively overwhelm a valuable natural resource. So I recommend Montgomery's book.

Montgomery opens with chapters dealing with the life history and habitat requirements of wild salmon. Then he turns to three key chapters, each describing a geographic area where salmon once thrived, but where wild salmon have been eradicated or so adversely affected that the remnant populations are now threatened or endangered. In fact, many West Coast wild salmon runs have been legally listed as threatened or endangered under the Endangered Species Act (the 1973 federal law designed to protect species judged by the US Fish and Wildlife Service to be at extreme hazard).

The three chapters I mention in the preceding paragraph are these:

- Chapter 5: Old World Salmon [Montgomery's history of European salmon]
- Chapter 6: New World Salmon [History of Atlantic Coast salmon, both US and Canadian]
- Chapter 7: Western Salmon Rush [History of West Coast salmon, including Alaska]

What links all three geographic areas? All three had healthy populations of wild salmon centuries ago. These rich populations of native wild salmon began vanishing from Europe's rivers in the early 1600's, from the Atlantic Coast during the early 1800's, and from the Pacific states during the mid-1900's. Now, only Alaska has wild salmon runs that are in fairly good condition. But even in Alaska, current runs do not approach the number or size (in weight) of salmon recorded when settlers first went to Alaska.

Page 77 of Montgomery's chapter on Old World salmon has a brief description of the threats to British salmon in the mid 1800's:

"Many [experts] with knowledge of salmon fisheries were frustrated by governmental inaction. Some bemoaned the government's preoccupation with politics and its general

apathy toward the state of salmon runs. Others . . . hinted more directly at the role of vested interests in preventing reforms. . . . Official inaction, apathy, and complicity contributed to degrading the British salmon fisheries.”

As this summary says, the British government and its citizens lacked the will to prevent the destruction of rich salmon runs. And even as today in the United States, our governmental representatives are unable to address problems such as overfishing of major ocean fish species, much less solve the ongoing declines in wild salmon (in the few streams where wild salmon survive).

Montgomery provides dozens of examples when governmental rulers, starting with the kings and queens in Medieval England, issued good-intentioned edicts protecting salmon. (In a NEPA context, these edicts likely represented “better decisions”!) But for centuries, individual citizens ignored the edicts, and salmon runs declined. Later English officials passed more laws and regulations protecting salmon. Again, citizens ignored most protections for the salmon, and government chose not to enforce even minimal protections for salmon.

NEPA, as it is currently written, depends on both the government (federal, state, and local) and individual citizens to take wise actions. The collective actions of thousands of individual decisions have the power to overwhelm a commonly owned resource, such as salmon. Such a hazard is why individual resource specialists are properly key advocates for their resources. If their resource information is both clear and credible, the hope has to be that governments at all levels and even individual citizens will be persuaded to work for the common good. Obviously, this hope depends on the health and political responsiveness of the US political system to environmental problems of all kinds and degrees! At its heart, this is reliance on political will, not on the credibility of known resource information.