Mitigation Under NEPA: Failed Promises?

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U.S. Department of Agriculture
Washington, D.C.
November 2012

Capstone paper submitted in partial fulfillment of

the

requirements for the Certificate in NEPA

Duke Environmental Leadership Program

Nicholas School of the Environment at

2012

Introduction

When the environmental impacts of federal actions are assessed under the National Environmental Policy Act (NEPA),[1] if adverse effects are identified, agencies are to describe measures to mitigate these effects to the extent possible. This paper will examine mitigation in terms of intention (what it was intended to be or accomplish), interpretation (varying viewpoints from the perspective of agencies, project proponents, the public), implementation (responsibilities, resources, gauging success), litigation (outcomes and their influence on the state of practice) and finally, application (a comparative study of two federal agencies).

Mitigation Defined

The dictionary defines mitigate or mitigation as "to cause to become less harsh or hostile, mollify, to make less severe or painful."[2] Based on this definition, on the surface mitigation would appear straightforward when applied to environmental impacts; but is that truly the case? Although NEPA itself does not specifically mention mitigation, the Council on Environmental Quality (CEQ) implementing regulations[3], and succeeding CEQ guidance[4] primarily define and describe mitigation and the so-called 'mitigation hierarchy' or 'sequencing' - avoid, minimize, rectify, reduce or eliminate over time, and compensate. The first instance of elements of mitigation being mentioned in the CEQ implementing regulations is in the context of identifying and analyzing alternatives.[5] Indeed, it is preferable to focus on project alternatives that avoid impacts in the first place, as opposed to requiring more substantial, difficult or costly measures upon project implementation.

At the same time, it is an established principle that NEPA does not pose a substantive requirement upon agencies to mitigate,[6] perhaps aligning with the view still sometimes voiced that NEPA is primarily a 'procedural' statute, lacking real 'teeth'. But while NEPA may not impose substantive environmental mandates, it does require federal agencies to establish procedures to account for the environmental effects of certain proposed actions,[7] and indeed even from its early years, bore a more substantive tone and content than perhaps realized, subsequently reinforced by the courts.[8]

Another consideration is the distinction between mitigation and those measures that agencies should be doing (or require as part of construction contracts, for example) as standard practice, or are built into project design, e.g., (most commonly termed) best management practices or standard engineering/ construction measures.

Best Management Practices (BMPs) can be defined as a suite of techniques, procedures, measures, or practices which are site specific, economically feasible, and are used to guide, or may be applied to, management actions to aid in achieving desired outcomes.[9] These could include structural and nonstructural controls, operational procedures, and maintenance procedures. Further, BMPs have been presented as procedures initiated by the identification of a specific (program) activity that is to be conducted, followed by an evaluation of the potential impact to the environment resulting from that activity, and concluding with the development and implementation of measures or procedures to mitigate impacts; additional measures could also be identified during the state environmental or NEPA process for a specific activity.[10] In this characterization, the State of Montana took a fairly expansive view of these practices, encompassing both early planning steps and project-specific measures tied to identified impacts. This inclusive view seems common; such standard practices are considered one in the same with mitigation, since they also help prevent environmental harm.[11, 12]

But the view also exists that the distinction should be made, or a relatively clear line be maintained between 'true' mitigation measures and standard practices.[13] This is because "BMPs are not considered mitigation procedures because they are ongoing, regularly occurring practices".[14]

Some have also distinguished between mitigation and compensation, in that compensation is strictly to replace a lost resource,[15] or even the “creation of new values, which are equal to the lost values”.[16] Similarly, compensatory mitigation has been defined as restoration, creation, enhancement, or preservation to compensate for impacts pursuant to a regulatory program (that either issues permits or assesses after-the-fact damages), while mitigation is avoidance or minimization, rectifying the impact, reducing or eliminating the impact over time, or compensating for the impact by replacing or providing substitute resources or environments.[17] In

the U.S., compensatory mitigation is most often associated with wetlands mitigation/replacement pursuant to permits under the Clean Water Act S. 404.[18]

In a preferential sense, avoidance has been considered common and desirable, and compensation rare and undesirable; compensation as essentially a 'last resort'.[19] The mitigation protocol should first make every effort to avoid damages, then minimize, and *only then* (emphasis added) offset the damage.[20] Avoidance has been viewed strictly in terms of project-specific design, rather than employing BMPs. It has been suggested that a range of "pre-emptive" measures to avoid environmental impacts could include identification of alternatives, sensitive design, environmentally sustainable technology, development restrictions in sensitive areas, avoidance of certain key areas, adopting the 'precautionary approach', and finally, refraining from certain impact-causing actions.[21]

Differing Interpretations

Following on the question of 'mitigation measure' versus 'best management practice', how have different stakeholders viewed mitigation? Based on professional experience, literature, and a review of 'case studies', interpretations can vary widely. In the eyes of project proponents and the consultants that frequently prepare impact assessments, mitigation can become a catch-all of sorts, including any and all measures thought necessary to ameliorate project effects, be they real or perceived ('perceived' in the sense that the impact analysis does not provide evidence that a particular resource will be affected, yet mitigation measures are nonetheless proposed).

The typical mitigation sections in USDA Rural Development Water and Wastewater project reports[22] seem to indicate that authors feel if there is not something listed, the agency has not done its job, as if the conclusions will not be accepted if the conclusion is "no/minor impacts, no mitigation required". There has appeared a growing misconception or misunderstanding that mitigation includes those measures required under regulatory authority or permission, and that could be part of most any project, e.g., CWA Section 404 or NPDES permits, special use or encroachment permits from land managing agencies, and required state agency permits. Required consultation under the National Historic Preservation Act[23] and Endangered Species Act[24] has even been couched in terms of mitigation. Some Rural Development state offices[25] have included as 'standard' mitigation measures the requirement that a borrower (typically a

municipality) enact land use restrictions or binding covenants to prevent future development as a means of mitigation (for example, to prevent further development that may impact floodplains or wetlands). Agencies must have the legal authority (or the ability to comply with another agency's authority) to propose and 'enforce' mitigation,[26] and the requirement for enactment of development restrictions (especially without knowing what the nature or source of funding for future development might be) clearly does not meet this standard.

These examples appear to indicate that the concept of mitigation has taken on a broader set of meanings than what was originally intended. The result has been a 'dilution', or maybe a distortion, of the concept in terms of substance, implementability, and ultimately effectiveness and value in protecting resources or redressing damages. An Environmental Law Institute report suggests that a re-focus on targeted and meaningful mitigation will be necessary as resource impacts take on new dimensions and new urgencies.[27] This report seems to emphasize that the status quo on mitigation is piecemeal, project specific, and not holistic or systems-oriented.[28]

The simultaneous importance and challenges of effective mitigation under NEPA are brought to focus in the CEQ's recent guidance**.**[29] The guidance states that failure to "... determine if the mitigation was implemented and effective, the use of mitigation may fail to advance NEPA's purpose of ensuring informed and transparent decision-making" and "... may also undermine the integrity of the NEPA review."[30] The guidance also describes the importance of and recommendations for implementation and effectiveness monitoring, in order to "... consider reasonably foreseeable impacts and conditions in a constantly evolving environment."[31] The importance of mitigation follow-up and planning has also been noted elsewhere.[32] Although the requirement for agencies to have specific mitigation plans in place has been debated (see next section), they are however required (expected) to formulate or provide measures that are then implemented in the context of their own agency authorities to protect resources.[33]

One scholar has expressed that NEPA requires a "re-tooling" by requiring follow-up monitoring, adaptive mitigation, and an environmental management systems-oriented approach. This author believes that a shift from before-the-fact prediction to pragmatic, empirical monitoring is necessary due to the inherent uncertainty in impact prediction, and would allow systematic error detection and better-informed management over a project's life**.**[34]

Effects of Litigation

Perhaps the definitive case involving NEPA mitigation is *Robertson v. Methow Valley Citizens Council,*[35] in which the Supreme Court considered an agency's duty to mitigate. The court distinguished between the positive requirement to discuss mitigation in a NEPA document, but that such a requirement does not exist to formulate and adopt a complete mitigation plan. So how could mitigation ever have a positive effect if only mere discussion is required but no plan on how to do it? A recent article that included re-analysis of all 17 NEPA-related cases decided by the Supreme Court[36] indicates that the Court's decision in *Robertson*, and its companion, *Marsh v. Oregon Natural Resources Council,*[37] may not have been as seemingly lenient on NEPA's requirements as at first glance. In reviewing various of the Justice's notes and Justice Stevens' majority opinion, it appears that the Court sought to ensure and preserve NEPA's "procedural force"[38] noting that Stevens' opinion stressed that "omission of a reasonably complete discussion of possible mitigation measures would undermine the 'action-forcing' function of NEPA".[39]

Although their decision revolved around the balancing of protective measures for marine mammals (mitigation measures issued as part of a lower court's preliminary injunction) with harm to the parties and the public interest (maintaining the Navy's readiness for its national security mission through the ability to train forces), at least this one case did question the merits and effectiveness of the proposed mitigation itself .[40]

In another case involving a Corps of Engineers 'mitigated FONSI', the minority in a 4th Circuit decision noted that by proceeding instead with a one-to-one mitigation strategy that failed to account for lost stream function (due to overburden placement from mountaintop removal mining), "the Corps (of Engineers) undermined the goal of mitigation: replacement of what is being lost."[41] The dissent would affirm the district court judgment rescinding the permits and remanding them to the Corps for "further consideration" consistent with the CWA Guidelines and NEPA. The 4th Circuit's ruling that overturned the district court decision, and in so doing did not require the Corps to use what was considered an appropriate basis for mitigation, was considered "foreboding" in possibly setting a precedent for actions outside of the mining sector.[42]

Comparison of Agency Approaches

To illustrate the wide variation in federal agency approaches to mitigation, this section will provide a brief comparison between two agencies - USDA Rural Development (RD) and the Department of the Army (Army). This could be viewed as very much an 'apples and oranges' comparison in terms of the respective missions, budgets, and mitigation objectives of RD and the Army. Again, it is meant to be illustrative of some of the challenges, issues and effectiveness of mitigation under NEPA, and not a value comparison of the agencies. The comparison looks at their respective regulations and policies, the resources devoted to mitigation, processes, documentation, the path between decision and implementation, and successes and failures. A detailed examination of all these elements is beyond the scope of this paper, and as such the focus will be on what happens once a NEPA review identifies a mitigation requirement.

USDA Rural Development

Rural Development is a USDA agency that provides financing (in the form of loans, grants, or loan guarantees) for infrastructure development in rural areas (generally communities of 10,000 or less). There are three main programs within the agency - utilities (water/wastewater, electricity, telecommunications), housing, and business/cooperative services. The FY 2012 budget/program for RD is about $20B, and the current loan portfolio is about $172B.[43] The electric and telecommunications programs are administered by the national office (USDA headquarters), while the remaining programs are administered by RD's 47 state offices, with national office oversight.

Regulations and policies for implementing NEPA are agency specific, with the Rural Utilities Service (RUS) under one regulation (7 CFR 1794)[44] and Rural Housing/Rural Business under another (7 CFR 1940).[45] While this split presents implementation and coordination challenges among agency staff, regulatory language and direction on mitigation are actually fairly similar; there is no department-wide (i.e., applicable to all of USDA) policy or guidance regarding mitigation.

In addition to 7 CFR 1794, RUS also relies on several guidance documents termed either 'Staff-Instructions' (SI) or 'Bulletins'. These documents are typically program- and/or NEPA class (i.e.,

EIS, EA)-specific. Program implementation in general, including financial, engineering, and to some extent environmental considerations, is also described in various program regulations. For simplicity of illustration, the succeeding discussion will focus primarily on RUS's Water and Wastewater Program (the implementing regulation for this program is 7 CFR 1780).[46]

Staff Instruction 1794-1,[47] Sections 2.7-2.9, states that "Any mitigation measures developed to avoid or minimize adverse environmental effects must be legally enforceable", and that "It is preferable that mitigation utilize existing administrative and regulatory authorities of Federal, State or local regulatory bodies." The instruction goes on to cite Instruction 1780-2[48] regarding project monitoring and follow-up inspection (which focus on construction and project completion), stating that "Processing Office[49] staff "... are responsible for monitoring the implementation of any agreed-upon mitigation measures during the construction of the proposed project and during RUS inspections or borrower visits following project completion."

Bulletin 1794A-602,[50] Exhibit C, describes types of mitigation measures, provides numerous examples, and discusses proper development and application to help insure effectiveness. Many of the examples given could be viewed as 'BMPs', permit compliance, or completion of agency coordination. However, sound advice is provided on applicability or necessity, practicability of measures, motivation for implementation and follow-up, and seeking balance between the nature of the impact and reasonableness, practicability, and value of proposed mitigation.

By contrast, electric program bulletins place mitigation implementation and follow-up responsibilities primarily on applicants. In all cases, there is a positive requirement that any required mitigation measures be specifically included in project financing agreements and construction contracts. Financing can include mitigation costs (though this is usually determined on a case by case basis).

Department of the Army

A somewhat detailed "Case Study" discussion of the Army NEPA/mitigation process is provided in the CEQ's mitigation guidance.[51] The Army's NEPA implementing regulation is at 32 CFR Part 651.[52] This part applies to actions of the Active Army and Army Reserve, to functions of the Army National Guard (ARNG) involving federal funding, and to functions for which the Army is the DOD executive agent. Operations Other Than War (OOTW) or Stability and

Support Operations (SASO) are also subject to the provisions of this part. It does not apply to Civil Works functions of the U.S. Army Corps of Engineers (USACE) or to combat or combat-related activities in a combat or hostile fire zone.

Section 651.15 covers mitigation and monitoring. The proponent must implement those identified mitigations, because they are commitments made as part of the Army decision. The proponent is responsible for responding to inquiries from the public or other agencies regarding the status of mitigation measures adopted in the NEPA process. The mitigation shall become a line item in the proponent's budget or other funding document, if appropriate, or included in the legal document implementing the action (for example, contracts, leases, or grants).[53] The rule specifically states that unless money is actually budgeted and manpower assigned, the mitigation does not exist. Coordination by the proponent early in the process is required to allow ample time to get the mitigation activities into the budget cycle. Projects cannot be undertaken until all required mitigation efforts are fully resourced, or until the lack of funding and resultant effects are fully addressed in the NEPA analysis.[54]

Section I talks about enforcement and effectiveness monitoring, summarizing measures applicable to responsible parties, and noting that quantitative (preferred) or qualitative measures are necessary to gauge success of mitigation in addressing impacts.[55] Provisions are also made for timely establishment of the program, public and agency/ expert coordination, reevaluation in the case where mitigation is shown ineffective, and reporting.[56]

Environmental Officers (at the Installation, MACOM (Major Command), and Army activity level) are responsible in part for oversight on behalf of the proponent to ensure adequacy and support for the proposed action, including mitigation monitoring; budgeting for resources to maintain oversight with NEPA; assisting proponents, as necessary, to identify issues, impacts, and possible alternatives and/or mitigations relevant to specific proposed actions; and, assisting, as required, in monitoring to ensure that specified mitigation measures are accomplished. This monitoring includes assessing the effectiveness of the mitigations.[57] Proponents are to adequately fund and implement the decision including all mitigation actions and effectiveness monitoring.

Appendix C to part 651, Mitigation and Monitoring, provides detailed information on mitigation types, sources of information and expertise, and considerations in establishing monitoring programs, which addresses both enforcement and effectiveness monitoring. Similar to the RUS regulations, the Army also requires that contract provisions include mitigation, but goes a step further by specifically requiring a penalty clause.[58] Penalties against a contractor for noncompliance may be specified as appropriate, in coordination with the appropriate legal advisor.

Appendix C notes the difficulty in establishing effectiveness monitoring, but provides a relatively detailed protocol that begins with clear identification of what is to be monitored and by whom (and their expertise), and moves through establishment of measurable parameters, baseline studies, accounting for bias, requiring replication, and assuring timely data collection to enable feedback and adjustment, thus linking to EMS concepts.[59] There appears to be considerable rigor and accountability designed into this monitoring system.

Agency Comparison

There are in fact several parallel components in each agency's regulations and guidance. Both clearly identify the need for mitigation to be incorporated into project design, and for additional measures to be described and included in construction and operation. Both agencies use legally-enforceable agreements to assure that project proponents/applicants are aware of and are held responsible for environmental mitigation. Both also describe types of measures that can be used according to resource or project type, and the factors that should be considered in choosing reasonable, practical and effective measures.

Where the agencies' approaches diverge is in the amount of detail and documented commitment (e.g., through provisions for dedicated funding, a robust monitoring program, and other resources) to monitoring the effectiveness of mitigation. The Army's program displays a 'mitigation mentality', so to speak, from early project planning to post-construction follow-up, and along the way establishes accountability on the part of staff and resources that demonstrates a desire for meaningful environmental protection. RUS regulations and guidance take the approach along a similar path, but with far less detail and relatively uncertain or unknown outcomes. Need, implementation and monitoring requirements, and reporting are described, but

the sense of accountability and commitment is lacking, and there is not a clear path from or between the agency and the proponent (applicant).

Summary and Conclusions

There appear to remain differences of opinion on what constitutes mitigation under NEPA. It seems that most continue to include the accepted spectrum ranging from avoidance and minimization to compensation as all constituting mitigation. But others, and I tend to fall into this camp, take a stricter view if you will by making a greater distinction between compensation and other measures that are designed to avoid or minimize impacts in the first place - and in so doing, there is no need for 'mitigation'. Mitigation measures should be required by or as part of an agency's decision document, as opposed to measures that can be routinely implemented by a project proponent. In my view, confusion or wasted time/resources can occur at least, and litigation or resource damage at worst can result if a distinction is not made.

Similarly, the possible treatment of mitigation as evidence of having done one's impact analysis 'duty' distorts the meaning and value of the concept. Seemingly, if there is no 'mitigation' for every possible impact, whether genuine or not, the analysis is somehow considered incomplete or incorrect. A state agency biologist once said something to the effect that "one fish lost is a significant impact" (in the context of the effects of commercial barge traffic), requiring some form of compensation. It is not unusual in reports currently submitted to USDA Rural Development (supporting categorical exclusions, and environmental assessments) to have 3-5 pages in the section summarizing mitigation measures, for relatively minor projects. To me this clearly indicates a misunderstanding of the concept of mitigation, and in some ways a lessening of what mitigation under NEPA was intended to accomplish.

Research for this paper (admittedly limited) of how the courts have ruled on or interpreted mitigation did not reveal a large body of defining legal decisions; it appears that mitigation specifically has not been a leading topic of NEPA-related litigation. In instances where plaintiffs contested the presence or sufficiency of mitigation, lower courts seemed to rule in their favor, while the Supreme Court appeared to favor a less strict duty to mitigate, though simultaneously reinforcing NEPA's requirement to identify and address environmental impacts. However some experts, and certainly the recently-released CEQ guidance on mitigation and monitoring, shift

the focus more from whether or not mitigation was identified to how effective is the mitigation that is identified. Through a combination of inattentiveness and limited resources, the actual effectiveness and value of mitigation in protecting environmental resources remains perhaps somewhat murky.

Requirements for and efforts to determine the effectiveness of mitigation, as evaluated from the perspective of two federal agencies, can vary widely. While USDA Rural Development appears to have produced sufficient definition and direction for mitigation, as well as defined responsibility for follow-up and monitoring, evidence of actual accounting or reporting is mostly absent. It is perhaps encouraging to note that the proposed new NEPA implementing regulation for the agency, which would essentially combine the two existing regulations, does include stronger language and a placement of increased responsibility on program applicants for assuring the implementation and effectiveness monitoring of mitigation, as called for by the CEQ guidance.

In contrast, the Army approach to mitigation appears to be well-resourced and by regulation strict in its requirements for evaluation and accounting as to the success of environmental mitigation. The CEQ, in its guidance, uses the Army model as a demonstration, and presumably as a tacit recommendation for other agencies to follow. Adequate resources, both in (dedicated) funding and staffing, needless to say are key elements in the ability to make such an approach work.

The current budget environment does not bode well for agencies' ability to truly meet the adaptive management or environmental management system model of mitigate/assess/adjust to assure not only effectiveness, but that commitments made under NEPA have been met. However, it seems evident that a clear understanding of what mitigation is intended to be, and a renewed (and sufficiently resourced) effort to assure both implementation and effectiveness is necessary to achieve the promises of environmental protection under NEPA.

Endnotes

[1] National Environmental Policy Act of 1969, Pub. L. No. 91-190, § 102, 83 Stat. 852 (1970) (codified as amended at 42 U.S.C. §§ 4321-4370a (1988)) [hereinafter NEPA].

[2] http://www.merri am-webster.com/dictionary/ mitigation.

[3] Council on Environmental Quality (CEQ). 1980. *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (CEQ Regulations), 40 CFR* Parts 1500-1508.

[4] Council on Environmental Quality. 2011. *Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact.*

[5] See note 3, 40 CFR §§1500.2(e), 1502.14(f).

[6] *Robertson v. Methow Valley Citizens Council, 490* U.S. 332, 352 (1989).

[7] *American Bird Conservancy, Inc. and Forest Conservation Council, Petitioners v. Federal Communications Commission, Respondent, CTIA - The Wireless Association, et. al., Intervenors, Petition for Review of an Order of the Federal Communications Commission* (2008). *See* also See *Department of Transportation. v. Pub. Citizen, 541 U.S. 752,*756-57 (2004).

[8] Lazarus, R. 2012. The National Environmental Policy Act in the U.S. Supreme Court: A Reappraisal and a Peek Behind the Curtains. *The Georgetown Law Journal, V. 100,* 1507-1586.

[9] All Consulting and Montana Board of Oil & Gas Conservation. 2002. *Handbook on Best Management Practices and Mitigation Strategies for Coal Bed Methane in the Montana Portion of the Powder River Basin.* Prepared for the U.S. Department of Energy, National Petroleum Technology Office, National Energy Technology Laboratory. Retrieved from http://bogc.dnrc.mt.gov/PDF/BMPHandbookFinal.pdf.

[10] Id.

[11] See note 4.

[12] Washington State Department of Transportation. 2008. SR *519 Intermodal Access Project - Phase 2 Environmental Assessment, Appendix B*. Retrieved from http://

www.wsdot.wa.gov/NR/rdonlyes/8AB305F5-ID53-4814-9CFS-F3DB05515860/0/ AppendixBBMPs.pdf.

[13]U.S. Department of Defense. 2009. *Guam and CNMI Military Relocation, Draft EIS/OEIS, Volume 7, Chapter 2*. Retrieved from http://www.guambuildupeis.us/documents/volume7/Volume%207%20Chapter%202.pdf.

[14]Id.

[15]Rajvanshi, A. 2008. *Mitigation and compensation in environmental assessment.* Chapter 17 in T.B Fischer, P. Gazzola, U. Jha-Thakur, I. Belcakova, and R, Aschemann, eds., Environmental Assessment Lecturers' Handbook, EC Penta Erasmus Mundus Project, February 2008. Retrieved from http:www.twoeam-eu.net/handbook/05.pdf.

[16]Kuiper, G. 1997. Compensation of Environmental Degradation by Highways: A Dutch Case Study. *European Environment, 7: 118-125*. (As cited in Id.)

[17] Environmental Law Institute and The Nature Conservancy. 2009. *The Next Generation of Mitigation: Linking Current and Future Mitigation Programs with State Wildlife Action Plans and Other State and Regional Plans.* Retrieved from http:// www.elistore.org/ Data/products/d1908.pdf.

[18] 33 U.S.C. § 1344.

[19] United Nations Environment Programme. 2007. *EIA training resource manual.* Retrieved from http://www.unep.ch/etu/publications/EIA_ovrhds/top07.pdf.

[20] Environmental Law Institute. 2007. *Mitigation of Impacts to Fish and Wildlife Habitat: Estimating Costs and Identifying Opportunities.* (Cited in note 17)

[21] See note 15.

[22] These reports constitute the NEPA document for a particular proposal, and are typically prepared on behalf of the agency by the applicant's consultant. Based on its review, the agency determines the ultimate acceptability of the document.

[23] Public Law 89-665; 16 U.S.C. 470 et seq.

[24] Public Law 93-205, 16 U.S.C. 1531-1544.

[25] Rural Development programs other than electric and telecommunications are administered by the agency's 47 state offices (some offices cover more than one state). These offices are

responsible for program outreach to and direct coordination with borrowers, and intake and processing of applications for financing.

[26] See note 4.

[27] See note 17. The report cites in particular population growth, infrastructure development, increasing energy development, and the impacts of climate change.

[28] Id.

[29] See note 4.

[30] Id., Page 2.

[31] Id., Page 9.

[32] See note 15, Chapter 18.

[33] See note 17.

[34] Karkkainen, B. 2002. Toward a Smarter NEPA: Monitoring and Managing Government's Performance. *Columbia Law Review 102:903-972.*

[35] See note 6.

[36] See note 8.

[37] *Marsh v. Oregon Natural Resource Council, 490 U.S. 360* (1989).

[38] See note 8, Page 1555.

[39] Justice John Paul Stevens from *Robertson*, quoted in note 8.

[40] *Winter v. Natural Resources Defense Council, Inc., 555 U.S. 7* (2008).

[41] *Ohio Valley Environmental Coalition v. Aracoma Coal Co., 556 F.3d 177,* 185-86 (4th Cir. 2009); see also Ohio Valley *Environmental Coalition v. United States Army Corps of Engineers, 479 F. Supp. 2d 607* (S.D. W. Va. 2007).

[42] Sangi, E. 2010. Equating Stream Structure with Function: The Fourth Circuit's Misstep in Ohio Valley Environmental Coalition v. Aracoma Coal Co. *Ecology Law Quarterly 37:701-710*.

[43] http://www.rurdev.usda.gov/About:RD.html (accessed September 17, 2012).

[44] Department of Agriculture, Rural Utilities Service, 7 CFR Part 1780 and 1794, Environmental Policies and Procedures; Final Rule, December 11, 1998 (http://ecfr.gpoaccess.gov/cgi/t/text/text-idx? c=ecfr;sid=b895752c16da8b01975fefc818).

[45] Department of Agriculture, Rural Development, 7 CFR Part 1940, Subpart G, Environmental Program. (10-19-88) Special PN (http://www.rurdev.usda.gov/SupportDocuments/1940g.pdf).

[46] http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr;sid=b895752c16da8b01975fefc818e95a6e;tpl=/ ecfrbrowse/Title07/7cfr1780_main_02.tpl.

[47] Internal document, cannot be accessed electronically.

[48] Internal document, cannot be accessed electronically.

[49] State Offices are comprised of several area offices located throughout a given state or states. These offices typically interact directly with applicants and serve as the initial intake point for applications for financial assistance, and process applications prior to submission to the State Office for further evaluation and final approval.

[50] Rural Development Bulletin 1794A-602, *Guide for Preparing the Environmental Report for Water and Environmental Program Proposals,* V. 1.2, March 2008. (http://www.rurdev.usda.gov/SupportDocuments/UWP-RUS%20Bulletin201794A-602%20032708.pdf)

[51] See note 4, Appendix, Pages 17-20.

[52] Environmental Analysis of Army Actions, 32 CFR Part 651. Retrieved at http://www.law.cornell.edu/cfr/text/32/651.

[53] Id., Part 651.15, Section C.

[54] Id., Section D.

[55] Id., Section I.

[56] Id., Sections J-L.

[57] See note 52, Part 651.4(p)

[58] See note 52, Appendix H, Section (f)(1)).

[59] Id., Section (g).