PRACTICABLE ALTERNATIVES ANALYSIS REGARDING CONSTRUCTION OF WATER SUPPLY RESERVOIRS

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INTRODUCTION

Local authorities, anxious to plan for projected water supply needs, have often relied on the construction of reservoirs on aquatic sites. Because reservoir construction on a watercourse requires the movement and placement of earth in and around the stream, a thorough "practicable alternatives" analysis[1] under the Federal Water Pollution Control Act is required before the Army Corps of Engineers will issue a § 404 permit for the discharge of dredge or fill material into streams and adjacent wetlands. Failure to broadly review alternative water supplies can result in denial of an application for a § 404 permit.

AUTHORITY

Statutes and Regulations

Section 102(2)(C) of the National Environmental Policy Act[2] requires all agencies of the Federal government to "include in every recommendation or report on proposals for . . . actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on . . . alternatives to the proposed action.

Section 404(b)(1) of the Federal Water Pollution Control Act[3] authorizes the administrator of the Environmental Protection Agency (EPA) to publish, in conjunction with the Secretary of the Army [Corps of Engineers], guidelines which are to be applied in evaluating requests for permits for the discharge of dredged or fill material into navigable waters.

Various regulatory guidelines[4] instruct the Corps of Engineers to examine practicable alternatives, prohibit discharge if a less adverse practicable alternative exists, establish a presumption that practicable alternatives which involve no discharge are less adverse, and require appropriate steps to minimize adverse impacts of a discharge.

Memorandum of Agreement on Mitigation

A recent memorandum of agreement between the Army [Corps of Engineers] and the EPA apparently accepts the EPA's longstanding view that harm to wetlands should be avoided, and not simply mitigated as the Corps of Engineers previously allowed.[5] This is to be accomplished by "sequencing" - a hierarchy of practices with **avoidance** as the primary method, followed by **minimization** of wetlands losses, and lastly **compensatory mitigation** where negative impacts on wetlands are unavoidable.[6]

Case Law

The courts do not question the importance of NEPA's requirement[7] of a detailed analysis of proposed and actual environmental impacts.[8] However, it is well settled that private claims based on NEPA may not address substantive issues, e.g., that environmental harm will occur. Rather, only attacks against the procedural requirements found in NEPA are permissible,[9] and it is furthermore generally limited to the administrative record.[10]

Section 404 of the FWPCA has long been construed as extending protection to all waters of the United States.[11] Especially relevant is that wetlands have been recognized by the Supreme Court as included in the definition of navigable waters.[12]

The EPA may veto a COE-issued permit based on environmental effects alone,[13] but may not elevate environmental concerns over other factors.[14] Although the EPA can apparently make an unwise, albeit informed, choice in allowing a § 404 permit, it must have substantial evidence to support a veto of a permit issued by COE.[15] This has been seen as a requirement for EPA to perform its own practicable alternatives analysis in support of a permit veto.[16] Vetoes are rare, however: of an average of 90,000 COE-authorized projects annually, EPA has vetoed only eleven since 1972![17]

Perhaps more important than practicability, the purpose for which the § 404 permit is sought must be reasonably broad so as not to preclude environmentally benign alternatives.[18] That is, one may not so narrowly define a need for a water supply that only one alternative stands out as suitable.

APPLICATION

Non-Wetlands Sites Preferred

Inherent in the consideration of every § 404 permit application is the very strong presumption found in the guidelines that unnecessary alteration or destruction of

wetlands should be discouraged as contrary to public interest.[19] To overcome this presumption, an applicant must show that the benefits are primarily dependent upon being located in close proximity to the aquatic environment, and that the proposed project cannot be located on any feasible alternative sites.[20]

Also, the MOA on Mitigation requires the COE to adopt a "sequencing" approach - emphasizing the avoidance of impact to wetlands - and flatly stating that mitigation of wetlands losses cannot be used in the consideration of alternatives.[21]

Alternative Means for Water Supply

While building reservoirs to supply drinking water has been a popular and easy solution, there exist several alternatives which bear investigation in the search for an environmentally sound, low-cost, safe and reliable water supply.[22] Upland storage lagoons, groundwater, and increased conservation have all received attention by experts in water resources as viable and feasible alternatives to increased reliance on reservoirs.[23]

Any one alternative may be insufficient to meet the projected need, but without detailed study of recognized alternatives, singly and in combination, a water supply planner cannot make a fair evaluation. In particular, an investigation of groundwater options requires the services of hydrological and geological experts and quite a bit of field work for test wells.[24] If a proper groundwater study finds a suitable alternative supply of water at a reasonable cost, then a § 404 permit application for a reservoir should be rejected.

CONCLUSIONS AND RECOMMENDATIONS

Local governments who promote the construction of aquatic-site reservoirs to meet water supply needs face considerable hurdles formed by the FWPCA and related regulations; but ensuring that these hurdles are actually cleared, and not skirted, may require diligence on the part of local citizens. Rapid growth and development, and federal agencies' needs to prioritize their expenditures of resources, may mean that not every incursion into wetlands will garner the attention of federal officials necessary to fully evaluate the alternatives. Citizens who will be directly affected - through land condemnation, increased taxes, and population growth - can help ensure compliance with FWPCA requirements through education of local authorities and of the electorate.

Such grass-roots watch-dog activity necessarily requires organization, participation, perseverance, and patience. Also important are legal and technical assistance: engineering surveys and population growth projections justifying the need for a water supply reservoir can easily appear to contain a thorough analysis of all possible alternatives, while actually being quite limited in scope and presumptive in conclusions. Without experts to review and comment on technical reports, criticism of a reservoir project will be heard as merely the product of a few disgruntled landowners.

By arming themselves with scientific data (e.g., economic, demographic, hydrologic) and participating in the process, citizens can voice reasonable concerns with both the practical and political aspects of a proposed reservoir project, and ensure that all practicable alternatives are considered before the Corps of Engineers issues a § 404 permit.

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ENDNOTES

1. "An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. If it is otherwise a practicable alternative, an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity may be considered." 40 CFR 230.10(-)(2).
2. 42 USC § 4332(2)(C) (1988) [hereinafter NEPA].
3. 33 USC § 1344(b)(1) (1988) [hereinafter FWPCA].
4. 40 CFR 230, § 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material.
5. Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines, 55 Fed. Reg. 9210, 20 ELR 35223 (12 Mar. 1990) [hereinafter MOA].
6. Want, *The Army - EPA Agreement of Wetlands Mitigation*, 20 ELR 10209 (June 1990).
7. NEPA § 102(C).
8. "It is the essence of this chapter [the National Environmental Policy] that a detailed statement gather in one place a discussion of the relative environmental impacts of alternatives." *Save the Niobrara River Ass'n v. Andrus*, 483 F.Supp. 844 (D.Neb., 1977).
9. "It is now well settled that NEPA itself does not mandate particular results, but simply prescribes the necessary process." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 109 S.Ct. 1835, 1846, 104 L.Ed.2d

351 (1989). Justice Stevens summed this up well when he noted in the unanimous opinion that "NEPA merely prohibits uninformed - rather than unwise - agency action." *Id.* at 351, 109 S.Ct. at 1846.

10. *Friends of the Earth v. Hall*, 693 F.Supp. 904, 19 Envtl. L. Rep. 20298 (W.D.Wash., 1988) (although the court may consider evidence outside the record when necessary to explain the agency's action, to explain technical terms or complex subject matter involved in an agency action, to ascertain whether the agency considered all relevant factors or fully explained its course of conduct or grounds of decision, and under other circumstances).
11. *See, e.g., NRDC v. Callaway*, 392 F.Supp. 685 (D.D.C. 1975).
12. *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 106 S.Ct. 455 (1985).
13. FWPCA § 404(c), 33 USC § 1344(c).
14. *Druid Hills Civic Ass'n v. Federal Highway Admin.*, 772 F.2d 700, 703 n.15, 23 ERC 1663, 15 Envtl. L. Rep. 21082 (11th Cir. 1985) (*citing Stryker's Bay Neighborhood Council, Inc., v. Karlen*, 444 U.S. 223, 227, 100 S.Ct. 497, 500, 62 L.Ed.2d 433, 437 (1980) (per curiam)), *cert. denied*, 488 U.S. 819, 109 S.Ct. 60 (1988).
15. *James City County, Va. v. U.S.E.P.A.*, 955 F.2d 254 (4th Cir., 1992). *See also* 5 USC § 706(2)(E) (administrative agency action on record of hearing provided by statute may be set aside only if "unsupported by substantial evidence"). *But see Bersani v. U.S.E.P.A.*, 850 F.2d 36, 46, 27 ERC 2133, 18 Envtl. L. Rep. 20874 (2d Cir., 1988), *cert. denied* 489 U.S. 1089, 109 S.Ct. 1556 (1989), ("arbitrary and capricious" standard is used). The court in *James City County* would have reversed even if they had used the "arbitrary and capricious" standard of *Bersani* because of evidence that the alternatives the EPA considered as "practicable" were either far too costly - desalinization - or patently unavailable - ground water determined to be "adverse to public health, welfare, and safety" by Va. State Water Control Board.
16. *James City County, Va. v. U.S.E.P.A.*, 758 F.Supp. 348, 21 Envtl. L. Rep. 20371 E.D.Va., 1990), *aff'd in part and remanded*, 955 F.2d 254, (4th Cir. 1992) (Remand to allow EPA an opportunity to veto the permit solely for environmental reasons).
17. *See* Wood, *Section 404: Federal Wetland Regulation is Essential*, ABA Natural Resources & Environment Journal 7, 55 (Summer 1992).
18. *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196, 290 U.S.App.D.C. 371, 21 Envtl. L. Rep. 21142 (1991) (defining the scope of the "hard look" that a Federal agency must take when evaluating factors relevant to the definition of the purpose of the proposed activity, and presumably applicable to the objectives of private citizens and non-federal entities as well).
19. 230.10(a)(3).
20. *Buttrey v. U.S.*, 690 F.2d 1170, 13 Envtl. L. Rep. 20085 (5th Cir., 1982), *cert. denied* 461 U.S. 927, 103 S.Ct. 2087, 77 L.Ed.2d 298.
21. Gardner, *The Army - EPA Mitigation Agreement: No Retreat from Wetlands Protection*, 20 ELR 10337 (Aug. 1990).
22. Hatcher, *Method for Identifying Water Supply Alterna tives to Minimize Impacts to Wetlands*, (1991) (draft of guidance document prepared for EPA Region IV, not yet adopted or published).
23. *Id.*
24. *See, e.g., Proceedings of the 1991 Ga. Water Resources Conference*, p.112-13 (J. Renner & T. Crawford, *Groundwater Supply assessment and Section 404 Permitting for Water Supply Reservoirs*).