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# HARD CHOICES: THE ANALYSIS OF ALTERNATIVES UNDER SECTION 404 OF THE CLEAN WATER ACT AND SIMILAR ENVIRONMENTAL LAWS

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## I. INTRODUCTION

After seventeen years, section 404 of the Clean Water Act<sup>1</sup> lies like an open wound across the body of environmental law, one of the simplest statutes to describe and one of the most painful to apply. Section 404 requires a federal permit for nearly all work in nearly all waters of the United States. Day in and day out, more than ten thousand times a year, in states so dry that water is wealth, in regions so wet that the first objective is to stay dry, and across all of the wet meadows, prairie potholes, ponds, bogs, creeks, and tributaries in between, section 404 permit applications set up potentially bloody confrontations among developers, regulators, and environmentalists. These confrontations invoke the spectrum of lobbying, administrative, legal, media, and organizing skills familiar to the practice of environmental law. As a matter of law, however, they will in all likelihood turn on the availability, in each case, of a nonwetland alternative.<sup>2</sup> Alternatives are the heart of section 404.

The requirement that alternatives be considered is not new to environmental law. A range of federal planning statutes, most notably the National Environmental Policy Act (NEPA),<sup>3</sup> require that alternatives to proposed actions be explored before actions are taken, or approved, by the government. Section 404 adds a new dimension, however. Its provisions apply to a wide assortment of private activity—land clearing and timber harvesting, homesites and shopping

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1. 33 U.S.C. § 1344 (1982 & Supp. IV 1987).

2. The term "wetlands" is used in this introduction as a shorthand for the "waters of the United States" and their adjacent wetlands to which section 404 applies. In the discussion that follows, the special protections afforded to wetlands as "special aquatic areas" under section 404 are distinguished. See *infra* notes 36-38 and accompanying text.

3. 42 U.S.C. §§ 4321, 4332 (1982 & Supp. IV 1987). See also Federal Land Policy and Management Act, 43 U.S.C. §§ 1701, 1712(c)(6) (1982 & Supp. IV 1987); National Forest Management Act of 1976, Pub. L. No. 94-588, 90 Stat. 2949 (codified as amended in scattered sections of 16 U.S.C.).

malls, boat docks and gravel pits—that have not been subject to federal approvals before. Moreover, its provisions are sharper in the tooth. Full consideration of alternatives does not suffice. If that consideration surfaces a drier option, the permit should not issue.

Section 404's alternatives test seeks to balance the scales of decisions that pit essentially unquantifiable wetlands values against the impressive promises of growth and profit that accompany applications for development. Without such a standard, there is no reason to expect that a permit process would even slightly reduce the rate of wetlands loss in the United States. The test faces a formidable obstacle, however, in the human psyche. While we all can accept the fact that our project will cause a certain amount of environmental harm, few are predisposed to accept that there might be a better way to proceed than the one we have planned. *Prima facie*, the inquiry into alternatives is an insult. In practice, furthermore, the standard is softer than meets the eye and opens a Pandora's box of possibilities. By "alternatives" we may mean other locations for the proposed activity, other activities on the proposed location, other activities elsewhere, or even other actors. At the outer edge, an applicant for a waterfront condominium might, alternatively, go open a store in Des Moines. Somewhat closer on the spectrum of reasonableness, most electric utilities could meet demand at less cost by selling insulation rather than nuclear power. Each of these possibilities begs the question: alternatives to what? What is the project for? The proposed Two Forks Reservoir in Colorado may stand or fall on whether it is viewed as a dam or as a means of meeting regional water needs. Every section 404 decision, from the smallest bulkhead to the largest commercial development, turns on these same, vexing questions of perspective.

The alternatives test is as critical to the success of section 404 as it has proven to be difficult to articulate and apply. This article is a study of how the test evolved, of how it is intended to work, of how it in fact works in permit decisions and in reported cases, of how similar tests work under similar environmental laws, and, in light of this experience, of ways that it could be modified to do the job intended. Without presaging the conclusion unduly, it will be apparent to any student of the program that, for all of its usefulness, the alternatives test is being asked to do too much and, in consequence, does not do it well. There must be a better way.

## II. SECTION 404 AND THE ALTERNATIVES TEST: THE ODD COUPLE

Section 404 is constructed on the backs of two beasts moving in

different directions. Unable to agree on vesting jurisdiction over dredge and fill activities in either the Environmental Protection Agency (EPA) or the Army Corps of Engineers (the Corps), Congress ended up vesting it in both of them with the hope that, if they could not pull together, then one agency would at least offset the wilder predilections of the other.<sup>4</sup> As might have been predicted, the construction cracks at nearly every turn in the road. EPA and the Corps have disagreed, at times bitterly, over the geographic scope of the section 404 program,<sup>5</sup> the kinds of activities that are regulated within it,<sup>6</sup> the wording of the guidelines for permit decisions,<sup>7</sup> the binding effect of these guidelines,<sup>8</sup> the consideration of specific impacts,<sup>9</sup> the role of cumulative impacts,<sup>10</sup> and the responsibility for enforcement.<sup>11</sup> Over time—for this program has now been in place since 1972—some of these disagreements have been resolved through litigation and amendments to the statute, in particular those that define the scope of the program. With such questions as who must apply for a permit, for what activity, and in what terrain largely resolved,<sup>12</sup> the focus has begun to move to the merits of the permit decisions themselves. Here, the differences in outlook between the Corps and EPA remain stubborn and unresolved.

Section 404 decisions turn on two factors: impacts and alternatives. Although the Clean Water Act and section 404 intend to reduce, indeed to eliminate, adverse impacts on waters of the United States,<sup>13</sup> and despite pages of legislation and regulations identifying

4. 1 COMM. ON PUBLIC WORKS, 93D CONG., 1ST SESS., A LEGISLATIVE HISTORY OF THE WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972, at 250 (Comm. Print 1973) [hereinafter LEGISLATIVE HISTORY].

5. *Natural Resources Defense Council v. Callaway*, 392 F. Supp. 685 (D.D.C. 1975).

6. *Avoyelles Sportsmen's League v. Marsh*, 715 F.2d 897 (5th Cir. 1983).

7. 48 Fed. Reg. 21,466, 21,469 (1983). See also Liebesman, *The Role of EPA's Guidelines in the Clean Water Act's § 404 Permit Program—Judicial Interpretation and Administrative Application*, 14 *Env'tl. L. Rep. (Env'tl. L. Inst.)* 10,272, 10,275-76 (1984).

8. *Administrative Authority to Construe § 404 of the Federal Water Pollution Control Act*, 43 *Op. Att'y Gen. No. 15* (Sept. 5, 1979) (Civiletti opinion).

9. See *infra* text accompanying notes 84-105.

10. U.S. GENERAL ACCOUNTING OFFICE, *THE CORPS OF ENGINEERS' ADMINISTRATION OF THE SECTION 404 PROGRAM* 28-32 (1988) [hereinafter GAO REPORT].

11. *Id.* at 55-75. Several of these differences have, as of January 1989, been addressed by new memoranda of agreement between the Corps and EPA. See Ransel, *EPA and the Corps Enter Three MOAs on Allocation of Regulatory Responsibilities Under the Section 404 Program*, NAT'L WETLANDS NEWSL., Jan.-Feb. 1989, at 2.

12. *E.g.*, *United States v. Riverside Bayview Homes*, 474 U.S. 121 (1985) (where the court endorsed an expanded definition of "waters of the United States").

13. 33 U.S.C. § 1251(a) (1982); see 33 U.S.C. § 1343 (1982 & Supp. IV 1987) (ocean discharge criteria); 33 U.S.C. § 1344 (permits for dredged or fill material); 33 C.F.R. § 320 (1988) (general regulatory policies for the Corps of Engineers under the 404 program); 40 C.F.R. § 230 (1988) (guidelines for specification of disposal sites for dredged or fill material).

these impacts in elaborate detail,<sup>14</sup> impacts analysis ends up playing the lesser role. As inevitably it must. Each of the some ten thousand permit applications processed each year is a localized event, taking one-half acre, three acres, twenty-one acres of wetlands, for this pier, that channel, a sand and gravel pit, or a building site. The indirect effects of even these individual takings—how much they will pollute, subside, or slowly asphyxiate their surroundings—are uncertain, and in any event will not be witnessed for years. The cumulative effects of these and similar activities—of one more marina on Galveston Bay, of one more logging road on the grizzly bear—may be far greater than the sum of the parts, and are even less susceptible to proof. Even those direct effects that are measurable are disputable: The oysters may be able to survive a little more turbidity, the pelicans may relocate on another island. Or they may not. And even those impacts beyond dispute are, most often, beyond quantification in terms that begin to offset the attractions promised by the project in profits, products, new jobs, and increases in the value of taxable property. Absent a dramatic impact on a prized species,<sup>15</sup> environmental impacts seldom affect a section 404 permit decision other than to require occasional features to reduce the harm.<sup>16</sup>

Congress recognized the shortcomings of impact-based environmental regulation in enacting the Water Pollution Control Act of 1972.<sup>17</sup> For the previous twenty years, environmental effects had failed as a standard for water pollution control.<sup>18</sup> From 1972 forward, industrial and municipal sources would be required, whatever their impacts, whether they were discharging into the smallest tributary or the Pacific Ocean,<sup>19</sup> to adopt best available technology, a decision based on alternatives available, literally, anywhere in the world.<sup>20</sup> These alternatives might and in fact did put particular facilities that could not afford them out of business.<sup>21</sup> The Act continued to consider environmental impacts but only as a safety net, to upgrade discharges where even the best available technology did not assure water quality.

14. See generally 40 C.F.R. §§ 230.20 -61 (1988); LEGISLATIVE HISTORY, *supra* note 4.

15. *E.g.*, *Sierra Club v. United States Army Corps of Eng'rs*, 614 F. Supp. 1475 (C.D.N.Y. 1985) (one of the few section 404 permit denials litigated on grounds of unacceptable impacts, in this case, upon the striped bass).

16. See GAO REPORT, *supra* note 10, at 21-25.

17. Pub. L. No. 92-500 §§ 2, 86 Stat. 816 (codified at 33 U.S.C. § 1251-1387 (1982 & Supp. V 1988)).

18. See generally LEGISLATIVE HISTORY, *supra* note 4.

19. *E.g.*, *Crown Simpson Pulp Co. v. Costle*, 16 Env't Rep. Cas. (BNA) 20,450 (9th Cir. 1981).

20. 33 U.S.C. § 1314 (a)(2) (1982).

21. *Association of Pac. Fisheries v. EPA*, 615 F.2d 794, 808 (9th Cir. 1980).

In the section 404 program, however, Congress delegated the bulk of impacts analysis and alternatives to EPA, requiring only that its guidelines be "compatible" with the criteria for ocean dumping in section 403<sup>22</sup> (which criteria include consideration of both effects and alternatives<sup>23</sup>), and that they be written "in consultation with" the Corps of Engineers.<sup>24</sup> Congress's caution was understandable. Dredge and fill discharges are, by their nature, not often susceptible to process changes and tailpipe controls. Their purpose may be the very discharge at issue, fill material for a building site. The question here, as opposed to that under the point source program, is whether to permit the activity at all, an alternative of a different order of magnitude. This buck was passed to the agencies, which, predictably, have taken it and gone their separate ways.

#### A. Guidelines and Regulations

Alternatives have been the cornerstone of the section 404 program since its earliest iteration in 1975.<sup>25</sup> Under proposed EPA guidelines, dredge or fill discharges were prohibited in wetlands unless the applicant demonstrated that the activity was "significantly dependent" upon water resources and was in the "public interest."<sup>26</sup> This requirement contained a proviso, however, allowing the discharge upon a showing that its impacts were not "unacceptable" and that alternatives were not "feasible."<sup>27</sup> The interim guidelines adopted six months later retained the same concept of water-dependency-with-proviso, but expanded its application from activities "on" to activities "associated with" the fill site, e.g., the entire industrial park.<sup>28</sup> In 1979, in an apparent effort to strengthen the guidelines, EPA proposed an additional showing that nonwater dependent discharges be "necessary,"<sup>29</sup> explaining that the activity, e.g., waterfront housing, would henceforth be one "for which the local community has a demonstrable need."<sup>30</sup> By the following year, however, the agency had found the "necessary" requirement both too subjective and, to some, too stringent,<sup>31</sup> and

22. 33 U.S.C. § 1343 (1982 & Supp. IV 1987).

23. *Id.* Section 403 also requires that, "where insufficient information exists on any proposed discharge to make a reasonable judgment on any of the guidelines," then the permit shall be denied. *Id.*

24. 33 U.S.C. § 1342(b) (1982).

25. 40 Fed. Reg. 19,794-98 (1975).

26. *Id.* at 19,797.

27. *Id.*

28. 40 C.F.R. § 230.5(b)(8)(ii).

29. 44 Fed. Reg. 54,222, 54,234 (1979).

30. *Id.* at 54,234.

31. 45 Fed. Reg. 85,336, 85,388 (1980).

adopted instead a two-tiered analysis of alternatives depending on the aquatic value of the site and the activity's dependency on water.<sup>32</sup>

Under the current guidelines, decisions begin with alternatives: "[N]o discharge of dredged or fill material shall be permitted if there is a practicable alternative . . . which would have less adverse impact on the aquatic ecosystem."<sup>33</sup> 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."<sup>34</sup> A project site not owned by the applicant is still "available" if it could "reasonably" be obtained and used to fulfill the basic purpose of the proposed activity.<sup>35</sup> For "special aquatic sites," which include wetlands, mudflats, reefs, and the riffle-and-pool characteristics of streams,<sup>36</sup> the regulations go further to presume the availability of an alternative site for activities that do not "require access or proximity" to the water, i.e., are not water dependent.<sup>37</sup> This presumption, and a second presumption that development of any nonwetland site will be less damaging, will prevail "unless clearly demonstrated otherwise."<sup>38</sup>

The guidelines maintain this focus on alternatives in their prescription for the decision-making process.<sup>39</sup> After an "overview" of the guidelines,<sup>40</sup> and a determination as to whether a general permit is applicable that will moot the inquiry,<sup>41</sup> the first substantive step to be taken is to "[e]xamine practicable alternatives," including no discharge and less damaging means of discharge.<sup>42</sup> If alternatives are available, they control. The process is over. Only if they are not available does the inquiry press on to examine the particular characteristics of the site, the discharge, and its effects.<sup>43</sup> While these inquiries are minutely detailed and complemented by tests and findings, the question-in-chief has already been asked: Is there a practicable alternative? The burden of disproving this alternative rests with the applicant. For fill in wetlands and other special areas, the alternative is presumptively available and the applicant shoulders an even stiffer burden to dis-

32. *Id.* at 85,336-44.

33. 40 C.F.R. § 230.10(a) (1988).

34. *Id.* § 230.10(a)(2).

35. *Id.*

36. *Id.* § 230.30(g)(1).

37. *Id.* § 230.10(a)(3).

38. *Id.*

39. *Id.* § 230.5(c).

40. *Id.* § 230.5(a)-(1).

41. *Id.* § 230.5(b).

42. *Id.* § 230.5(c).

43. *Id.* § 230.5(d)-(1).

prove it. In a world where impacts are and will always be an inadequate decision-making tool, we have, instead, something that approaches a technology standard. If it can be done another way, it must be.

The Corps of Engineers has held a different view of its world. For most of this century, its regulatory programs were restricted to the navigation aspects of activities in navigable waterways.<sup>44</sup> Its regulations called for a "public interest review" in which, while environmental factors came to be included by name, economics played a controlling role. Upon the assumption of its responsibilities under the Water Pollution Control Act, the Corps simply included section 404 decisions within its public interest review. The Corps regulations begin with no presumption. They state, in terms that could hardly be made less specific, that the permit decision is a "general balancing process" based on "an evaluation of the probable impacts" and the benefits of the "intended use" on "the public interest."<sup>45</sup> The regulations list no fewer than twelve factors that "may be relevant" to this process, including such concepts as "conservation," "economics," "considerations of property ownership," and "the needs and welfare of the people."<sup>46</sup> Only as one of three "criteria" in the evaluation of an application will the Corps "consider" the "practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work."<sup>47</sup> This consideration of alternatives does not rise to the level of a presumption, however, or impose a burden of proof; rather, after something of an ode to the importance of wetlands,<sup>48</sup> the regulations simply restate that no permit will be granted in these sensitive areas unless the district engineer concludes that the benefits exceed costs.<sup>49</sup> Its discretion no more fettered by alternatives than by anything else, the Corps does place an ever-so-slight thumb on the scales: "Subject to the preceding sentence and any other applicable guidelines and criteria . . . a permit *will be granted unless* the district engineer determines that it would be contrary to the public interest."<sup>50</sup> A presumption, at last—in favor of the permit applicant.<sup>51</sup>

44. Rivers and Harbors Act of 1899, 33 U.S.C. §§ 401, 403 (1982).

45. 33 C.F.R. § 320.4(a)(1) (1988).

46. *Id.*

47. *Id.* § 320.4(a)(2)(ii).

48. *Id.* § 320.4(a)(1).

49. *Id.* § 320.4(b)(4).

50. *Id.* § 320.4(a)(1) (emphasis added).

51. This presumption is later reinforced in a discussion of other federal, state, and local requirements: "In the absence of overriding national factors of the public interest . . . a permit will generally be issued following receipt of a favorable state determination," providing, of course, compliance with the infinitely flexible balancing process just described. *Id.* § 320.4(j)(4).

And so the analysis would end—at a point where the EPA and Corps regulations, departing from quite different stations, hardly communicate with each other en route—but for the settlement of a lawsuit brought by a coalition of environmental organizations that, *inter alia*, has required the Corps to abide by the EPA guidelines.<sup>52</sup> Since 1987, then, the Corps' public interest regulations have included the bare statement that a permit will be denied if it "would not comply with the Environmental Protection Agency's 404(b)(1) guidelines."<sup>53</sup> How, and in what sequence, Corps personnel are to comply with these two sets of regulations is not further explained. Whatever guidance this new language has offered to Corps district engineers and their staffs and, indeed, to reviewing courts, it was offset by rather specific guidance from the Reagan Administration and from Corps headquarters on the applicability of section 404.

*B. More Guidance, Permit Decisions, and the Chasm Widens*

In the early 1980s, the Reagan Administration took control over the Corps of Engineers in a way that no administration had previously accomplished,<sup>54</sup> imposing a moratorium on new project construction,<sup>55</sup> requiring local cost sharing for new project authorizations,<sup>56</sup> and further curbing whatever appetite the Corps may have had for regulation under section 404. In a 1981 speech, the incoming Assistant Secretary of the Army for Civil Works, to whom the Corps reports within the Department of Defense, declared that he had heard more complaints about section 404 than about any other Corps program.<sup>57</sup> In his view, this program exceeded "the appropriate role of the Federal government in regulating the development of private and public resources."<sup>58</sup> It took the Corps beyond its mission of "protecting the nation's navigational waterways" and asked it to make decisions based on a number of "factors and concerns which have little to

52. *National Wildlife Fed'n v. Marsh*, 14 *Env'tl. L. Rep.* (Env'tl. L. Inst.) 20,262, 20,264 (D.D.C. settlement approved Feb. 10, 1984).

53. 33 C.F.R. § 320.4(a)(1) (1988).

54. For a discussion of the unsuccessful efforts of previous administrators to control the Corps, see Houck, *President X and the New (Approved) Decisionmaking*, 36 *AM. U.L. REV.* 535, 536 n.5.

55. Congress was unable to pass legislation authorizing new project construction over the opposition of the Carter and Reagan administrations, for a 10-year period from 1976-1986. See Stanfield, *A New Era*, *NAT'L L. J.*, Nov. 22, 1986, at 2822 (1986).

56. *Id.*; see also Gianelli, *Count on Uncle Sam Less!*, *CIV. ENG'G J. AM. SOC'Y CIV. ENG'RS*, Apr. 1982, at 49, 51-52; *Omnibus Water Projects Legislation Links New Construction with Policy Reform*, *LAND LETTER*, Mar. 15, 1984, at 1.

57. Keynote address by William Gianelli, Assistant Secretary of the Army for Civil Works, American Society of Civil Engineers Conference 4 (Aug. 10, 1981).

58. *Id.*

do with the desired activity of the project applicant."<sup>59</sup> Wetlands protection and questioning the desires of private applicants were not the Corps' game.

At about the same time, Vice President Bush was asked to take charge of the President's program of regulatory reform.<sup>60</sup> A first priority of this reform was section 404, and from this initiative soon came a volley of proposals to amend the law and to revise Corps of Engineers regulations, policy guidance, and memoranda of understanding among the Corps, the EPA, the U.S. Fish and Wildlife Service (USFWS), and the National Marine Fisheries Service (NMFS) on its implementation.<sup>61</sup> The Assistant Secretary of the Army, seizing the moment, suggested that the EPA guidelines be made nonbinding on the Corps.<sup>62</sup> The regulatory reform initiative succeeded in part, most notably by reducing the time required for permit processing and by expediting approval of minor activities through general permits.<sup>63</sup> More substantive changes were defeated, in the main, through litigation<sup>64</sup> and through pressure from congressional oversight committees.<sup>65</sup> The message of these initiatives, however, was identical to that of the Assistant Secretary: remove the section 404 program from the path of private development.

The Corps has responded to these messages, as might any agency, by minimizing the impact of section 404. Several (rather courageous) decisions to deny individual permits have been overruled at higher Corps levels.<sup>66</sup> Almost no decisions to *grant* permits have been reversed at higher levels, despite the protest and appeal by other federal agencies.<sup>67</sup> More broadly, the Corps issued a series of "regulatory guidance letters" and less formal memoranda construing section 404's applicability as narrowly as possible.<sup>68</sup> On the subject of alternatives, in

59. *Id.*

60. PRESIDENT'S TASK FORCE ON REGULATORY REFORM, ADMINISTRATIVE REFORMS TO THE REGULATORY PROGRAM UNDER SECTION 404 OF THE CLEAN WATER ACT AND SECTION 10 OF THE RIVERS AND HARBORS ACT (May 7, 1982), described at 48 Fed. Reg. 21,466 (1983). See generally Tripp & Herz, *Wetlands Preservation and Restoration: Changing Federal Priorities*, 7 VA. J. NAT. RESOURCES L. 221, 229 n.30 (1988); Comment, *Corps Recasts Section 404 Permit Program, Braces for Political Legal Skirmishes*, 13 *Env't. L. Rep.* (Env't. L. Inst.) 10,128 (1983).

61. Comment, *supra* note 60. See also Lieberman, *supra* note 7.

62. Comment, *supra* note 60, at 10,128 n.1.

63. See *infra* note 108 and accompanying text.

64. *E.g.*, *National Wildlife Fed'n v. Marsh*, 568 F. Supp. 985 (D.D.C. 1983), *aff'd*, 14 *Env't. L. Rep.* (Env't. L. Inst.) 20,262 (D.C. Cir. 1984).

65. *Senate Panel Blasts Corps. EPA on 404 Wetland Program*, LAND LETTER, July 1, 1985, at 5-7.

66. See, *e.g.*, *infra* note 115 and accompanying text.

67. See GAO REPORT, *supra* note 10, at 49-50.

68. See, *e.g.*, *infra* notes 84-93 and accompanying text. The legality of these "guidance letters," which have the effect of regulations but which are not promulgated by notice and comment, seems subject to challenge under the Administrative Procedure Act, 5 U.S.C. § 553 (1982).

April 1986, the Corps' Director of Civil Works instructed all Corps districts that the "purpose and need for the project must be the applicant's purpose and need."<sup>69</sup> Contemporaneously, the Chief of the Construction-Operations Division of the Lower Mississippi River Valley Division instructed the New Orleans District, the most active section 404 permitting office in the nation, that "whatever information [an applicant offers] should be accepted as his basic purpose."<sup>70</sup> In March 1987, the Lower Mississippi Valley Division Commander supplemented these instructions with a memorandum stating that "minimization of cost is a legitimate factor in determining the applicant's purpose and the purpose of the project."<sup>71</sup>

Solidifying these gains, Corps Headquarters, "[a]s part of the overall effort to decrease the regulatory workload," issued yet new guidelines on the "points at which evaluation of a permit application can be terminated" without further Corps review.<sup>72</sup> Significantly, although a determination that an application would violate various other provisions of the guidelines is to end the process, a finding that it failed the *alternatives* test will not end it; "in order to make a fair and impartial decision, the district engineer can not deny a permit on the basis of [the alternatives test] until he has completed his public interest review."<sup>73</sup> Alternatives, by fiat, are reduced once again to a factor in the Corps' decision. How this "guidance" squares with the 1987 consent decree in which the Corps agreed to follow the section 404(b)(1) guidelines that, in turn, make the alternatives test controlling, has yet to be explained. It should also be obvious that, as a practical matter, by failing to end the inquiry at the alternatives test, this new guidance has increased the Corps' "regulatory workload," giving rise to the suspicion that diminishing the alternatives test, and not the workload, had been the target all along.

During this same time, and again at the direction of the Task Force on Regulatory Reform, the Corps undertook to reduce its responsibilities to consider the impacts and alternatives of all of its per-

69. Memorandum from Maj. Gen. H.J. Hatch to Division Commanders (Apr. 22, 1986) [hereinafter Hatch Memorandum] (discussing the application of section 404(b)(1) guidelines and the case of Louisiana Wildlife Fed'n v. York, 761 F.2d 1044 (5th Cir. 1985)).

70. Memorandum from W. Jack Hill, Jr., Chief of Construction-Operations Division, Lower Mississippi Valley District, U.S. Army Corps of Engineers, to Commander, New Orleans District (Mar. 26, 1986) (discussing the Bayou Grand Caillou and Carrere's permit application).

71. Memorandum from Maj. Gen. T.A. Sands to Division Commanders (Mar. 11, 1987) (discussing the application of section 404(b)(1) guidelines and the case of Louisiana Wildlife Fed'n v. York, 761 F.2d 1044 (5th Cir. 1985)).

72. J.P. Elmore, Chief of Operations and Readiness Division, U.S. Army Corps of Engineers, Regulatory Guidance Letter No. 8812 (1988).

73. *Id.* at 2.

mitted projects under the National Environmental Policy Act.<sup>74</sup> EPA's opposition to the proposed changes was fierce,<sup>75</sup> and the two agencies' positions mirror their differences over section 404. Under its earlier regulations, the Corps reviewed a permitted project as a whole: a chemical plant and its outfall, a condominium and its boat dock piers.<sup>76</sup> The amended regulations required the Corps to consider only the impacts of the "regulated activity" itself, e.g., the outfall or piers, unless, in the district engineer's discretion, the whole activity is sufficiently "federalized" to warrant its review in full.<sup>77</sup> The Corps further amended its regulations to eliminate a specific requirement that its environmental assessments discuss alternatives to nonwater dependent projects,<sup>78</sup> although the Corps will remain apparently bound by NEPA to provide this discussion for all projects, water dependent or not.<sup>79</sup>

The last contested NEPA change was in the definition of a project's purpose, which, of course, largely defines its alternatives. Previous Corps regulations recognized that all projects carry both a private and a public purpose, and that the public purpose needed to be presented "in as broad, generic terms as possible."<sup>80</sup> Using a power plant example, the purpose was described as "the need for energy and not the need for cooling water."<sup>81</sup> Under the new regulations, the purpose is only to obtain cooling water (unless the whole plant has been "federalized," as above); the applicant is even "encouraged to provide a statement of his proposed activity's purpose and need from his perspective," although the Corps should still "consider," where the "scope of analysis" allows, the "public interest perspective" as well.<sup>82</sup> The thrust of these changes is to narrow the lens of scrutiny, and to reduce its depth.<sup>83</sup> There are obviously fewer impacts, and signifi-

74. *Environmental Quality: Procedures for Implementing the National Environmental Policy Act (NEPA)*, 53 Fed. Reg. 3120-27 (1988) (final rule). For a history of the Corps' proposals, see *Implementation of National Environmental Policy Act: Council Recommendations*, 52 Fed. Reg. 22,517-23 (1987).

75. See *CEQ Accepts Corps' Procedures Under NEPA, But Suggests Alterations in June 8 Finding*, 18 Env't Rep. (BNA) 575-76 (June 12, 1987); *EPA, Corps Clash Over EIS Rules*, LAND LETTER, Feb. 1, 1987, at 1, 2; *Scope of Analysis in Army Corps NEPA Rule Called Key to EPA Objection in CEQ Hearing*, 18 Env't Rep. (BNA) 1664 (June 30, 1987) [hereinafter *Scope of Analysis*]; *EPA Refers Proposed Corps NEPA Procedures to CEQ*, NAT'L WETLANDS NEWSL., May-June 1985, at 3, 4.

76. 33 C.F.R. § 325 app. B, at § 8(a) (1986).

77. *Id.* § 325 app. B, at § 7(b) (1988).

78. *Id.* § 325 app. B, at § 8(a); see also 52 Fed. Reg. 22,521 (1987).

79. 52 Fed. Reg. 22,522 (1987).

80. 33 C.F.R. § 325 app. B, at § 11(b)(4) (1986).

81. *Id.*

82. *Id.* § 325 app. B, at § 9(b)(4) (1988).

83. Another result is to infuse considerable confusion into the Corps' concurrent responsibilities under NEPA and section 404. In one recent case, the Corps found itself in the (one would think)

cantly fewer alternatives, to cooling pipes than there are locations for power plants and methods of producing power.

The effect of these new instructions and amendments can only be appreciated in case-by-case decisions, which are beyond the scope of this, and perhaps any, study. Information is available, however, on numerous permit applications that illustrate how narrowly section 404 has been construed by its primary permitting authority, and how easily the alternatives requirement is circumvented. At the risk inherent in any small sample, therefore, and at the risk of excluding perhaps more apt examples, the following recent permit decisions may be useful.

1. *Bayou Grand Caillou, Louisiana*, involving an application to fill several acres of wetlands for a homesite road, bulkhead, and boat dock on a Southern Louisiana bayou already studded with existing, permitted and unpermitted, camps and docks and applications for more.<sup>84</sup> Both the EPA and the USFWS objected, based on the nonwater dependent alternative of setting the homesite back from the bayou and its adjacent wetlands.<sup>85</sup> The Corps' New Orleans District accepted these recommendations,<sup>86</sup> only to have its decision reversed and remanded by the Lower Mississippi Valley Division with instructions to limit alternatives to the applicant's stated purpose.<sup>87</sup> The District's decision obviously did not fulfill the applicant's "basic purpose and need," for the (to the Division) obvious reason that "otherwise he would not continue to protest" the decision.<sup>88</sup> On remand, the applicant then submitted the rather blunt explanation that he wished to

awkward position of maintaining that, on the one hand, a permit to fill for a golf course is, for purposes of NEPA, only a golf course project and hence without sufficient impact to call for an environmental impact statement, while at the same time, for purposes of section 404, the project is an indispensable part of a large, new ski resort and thus no alternative locations for the golf course are available. See, e.g., Brief for Appellant, *Sylvester v. United States Army Corps of Eng'rs*, No. 88-15376 (9th Cir. Nov. 17, 1988) (involving Perini Land Developing Co.).

84. U.S. ARMY CORPS OF ENGINEERS, FINAL PERMIT, BAYOU GRAND CAILLOU (1986) [hereinafter FINAL PERMIT—BAYOU GRAND CAILLOU]; see also personal communication with John Reddoch, Project Manager, New Orleans District, U.S. Army Corps of Engineers (Jan. 15, 1989).

85. Memorandum from Clinton B. Spotts, Chief of Federal Activities Branch, Region VI, U.S. Environmental Protection Agency, to C. J. Nettles, New Orleans District, U.S. Army Corps of Engineers (Feb. 26, 1985); Letter from David W. Fruge, Field Supervisor, U.S. Fish and Wildlife Service, to Col. Eugene S. Witherspoon, District Engineer, New Orleans District, U.S. Army Corps of Engineers (Feb. 25, 1985).

86. U.S. ARMY CORPS OF ENGINEERS, STATEMENT OF FINDINGS, BAYOU GRAND CAILLOU 5 (1985) [hereinafter STATEMENT OF FINDINGS—BAYOU GRAND CAILLOU].

87. Memorandum from W. Jack Hill, Chief of Construction-Operations Branch, Lower Mississippi Valley Division, U.S. Army Corps of Engineers, to Col. Eugene S. Witherspoon, District Engineer, New Orleans District, U.S. Army Corps of Engineers (Mar. 26, 1986).

88. *Id.*

"drain and fill the lot so that I may use and enjoy it";<sup>89</sup> any set-back alternative would be "impractical, unhealthy, dangerous and unacceptable."<sup>90</sup> These sentiments were echoed by the parish police jury (county council), which argued, *inter alia*, that the area was not a wetland, was a low quality wetland, was a "breeding grounds for rats, snakes, roaches and mosquitos," and, as a wetland, would violate the parish's "tall grass ordinance."<sup>91</sup> As unpersuasive as the District found these arguments to be, and as attractive as the original set-back alternative might be, the District revised its decision and found that there were "no reasonable alternatives available to the applicant that will achieve the purpose for which the work is being constructed."<sup>92</sup> This reevaluation "in regards to a revised interpretation of 'practical' alternatives" demonstrated compliance with the EPA guidelines, and the permit issued.<sup>93</sup>

2. *HORCA subdivision, Colorado*, taking eleven-plus acres of riparian wetlands for a housing project along the Conejos River.<sup>94</sup> Because the applicant desired to build along the Conejos River, and because "at least one similar project" outside the Conejos Canyon did not succeed, evaluation of alternatives was restricted to properties within the canyon and, because of availability, to properties along the river itself. At that point, nonwetland locations were concluded to be unavailable.

3. *Squaw Creek complex, California*, involving a \$100-million ski resort, a component of which is a \$4-million golf course in a valley which will take eleven acres of wetlands.<sup>95</sup> To the Corps, the alternative of locating the golf course in a nonwetland area, not part of the ski resort complex, would not accomplish the project's "basic purpose," which was to develop a "four seasons destination resort." Off-site alternatives, then, did not "meet the applicant's basic purpose and need and are not feasible."<sup>96</sup>

4. *Levert Land Co., Louisiana*, taking fifteen acres of hardwood

89. Letter from Ronald Carrere to Ron Ventura, New Orleans District, U.S. Army Corps of Engineers (July 9, 1985).

90. *Id.*

91. STATEMENT OF FINDINGS—BAYOU GRAND CAILLOU, *supra* note 86, at 3-4.

92. FINAL PERMIT—BAYOU GRAND CAILLOU, *supra* note 84, at 6.

93. *Id.*

94. Letter from Robert K. Dawson, Assistant Secretary of the Army for Civil Works, to Jennifer J. Wilson, Assistant Administrator for External Affairs, Environmental Protection Agency (Oct. 10, 1986), reprinted in part in *Scope of Analysis*, *supra* note 75.

95. Brief for Appellant, Sylvester v. United States Army Corps of Eng'rs. No. 88-15376 (9th Cir. Nov. 17, 1988).

96. U.S. ARMY CORPS OF ENGINEERS, FINAL PERMIT, PERINI LAND & DEVELOPMENT CO. 2-3 (1988).

swamp for a levee to protect the expansion of a housing development.<sup>97</sup> In its initial permit decision, the Corps rejected nonwetland sites available for purchase and expansion of the development, including agricultural land across the main access road to the subdivision.<sup>98</sup> To the Corps' New Orleans District, "none of these sites would allow the applicant to expand the existing subdivision, *which is the purpose of the project.*"<sup>99</sup>

5. *Plantation Landing Resort, Louisiana*, involving a Corps permit to take 82 acres of salt marsh and water bottoms on a coastal barrier island for a "water oriented recreational complex" including "condominiums, townhouses, motel, boat basin or harbor, restaurant, cafe, bar, harbor master office, fishing and dive shop, and a convenience store."<sup>100</sup> The purpose of the project is "to provide recreational opportunities and services which are absent from Louisiana's shorelines."<sup>101</sup> In the district engineer's view, the project is "water dependent."<sup>102</sup> Further, the applicant has rebutted alternative, nonwetland locations because these sites would result in "a disarticulated project" and "reduce the project scope to the point where benefits would be largely forgone."<sup>103</sup>

6. *Russo Development, New Jersey*, in which the applicant, who had already filled 52.5 acres of the Hackensack Meadowlands without the benefit of a permit, was now preparing to fill five more.<sup>104</sup> In approving an "after-the-fact" permit for the filled area, the Corps rejected the alternative of permit denial on the basis of the jobs and tax increases already provided on the (unlawfully) filled site. In approving a permit for the additional five acres, the Corps relied on the applicant's costs in purchasing the land and in site preparation as evidence of "the need for the project in terms of willingness to pay."<sup>105</sup>

The projects just described are typical section 404 applications. None is sensational. Sequentially, a homesite on the bayou, a new riverside subdivision, a golf course, a subdivision extension, a condomin-

97. U.S. ARMY CORPS OF ENGINEERS, PROPOSED PERMIT, J.B. LEVERT LAND CO. 1-3 (1987).

98. U.S. ARMY CORPS OF ENGINEERS, PERMIT EVALUATION AND DECISION DOCUMENT (DRAFT STATEMENT), J. B. LEVERT LAND CO. 1-3 (1987).

99. *Id.* at 2.

100. U.S. ARMY CORPS OF ENGINEERS, DRAFT STATEMENT OF FINDINGS, PLANTATION LANDING RESORT, INC. 1 (1988) [hereinafter DRAFT STATEMENT, PLANTATION LANDING RESORT].

101. *Id.*

102. *Id.* at 7.

103. *Id.* at 10.

104. FINAL DETERMINATION OF THE ASSISTANT ADMINISTRATOR FOR WATER CONCERNING THE RUSSO DEVELOPMENT CORP. IN CARLSTADT, NEW JERSEY PURSUANT TO SECTION 404(c) OF THE CLEAN WATER ACT, 53 Fed. Reg. 16,469 (1988) [hereinafter FINAL DETERMINATION—RUSSO].

105. *Id.*

ium, and a warehouse were found to be without nonwetland alternatives, and thus to pass the alternatives test. Each of these conclusions was reached over the protests of either the EPA, the USFWS, the NMFS, or of all three agencies at once. What these permits illustrate is that section 404 does not prohibit wetlands dredging and filling for even the most mundane projects on the everyday horizon, and that there is a fundamental disagreement among the implementing agencies as to whether it should.

This conclusion is buttressed by statistics available on the performance of the section 404 program as a whole. While the data show a reduction in section 404 and combined section 404/section 10 permit applications from an average of 10,000 applications a year in 1977-80,<sup>106</sup> to approximately 8600 applications in 1987,<sup>107</sup> this reduction resulted largely from the increased use of general permits that do not reduce the number of activities in wetlands but, rather, simply allow many to proceed without further review.<sup>108</sup> Despite the decreased permit review load, the overwhelming number of applications continue to be approved, a lesser number are withdrawn, and only a small fraction are denied. In fiscal year 1980, for example, of approximately 10,100 applications received, 7972 were permitted, 1869 were withdrawn, and only 253 denied.<sup>109</sup> In fiscal year 1987, the Corps received approximately 8600 applications, approved 5071, and denied 397.<sup>110</sup> Whatever the reasons for permit withdrawals—and they may range from a discovery that a permit is not needed, to modification of a project to avoid the need, to abandonment of the project for economic or other reasons—when an application to dredge and fill in waters of the

106. U.S. ARMY CORPS OF ENGINEERS, REGULATORY SUMMARY REPORT OF SECTION 404 PERMIT ACTIVITY, 1977-1980 (1982), cited in T. TOMASELLO, COMMENTS OF NATIONAL WILDLIFE FEDERATION ON THE JANUARY, 1982 ARMY-OMB PROPOSALS FOR REGULATORY REFORM OF THE SECTION 404 PERMIT PROGRAM 13, 14 (1982). These totals do not include permits issued exclusively under section 10, as section 10 permits are not subject to the section 404(b)(1) guidelines.

107. Letter from Gregory E. Peck, Chief, Enforcement & Regulatory Policy Staff, Office of Wetlands Protection, U.S. Environmental Protection Agency, to Michael Brady, Tulane Law School Researcher (Apr. 14, 1989).

108. The effect of general permits does not appear to be evenly distributed over all Corps districts: while the overall number of permits issued seems to have been reduced by only 15 percent, the reduction in the New Orleans District has been dramatic. A review of the permit records in the New Orleans District of the Corps of Engineers showed that in 1980, 1371 section 404 permits were issued and only 300 activities were issued under general and national permits. By 1986, only 609 section 404 permits were issued, while the number of general and nationwide activities rose to 1162. Houck, *Ending the War: A Strategy to Save America's Coastal Zone*, 47 MD. L. REV. 358, 370-71 n.61 (1988). In short, although the level of wetland activity remained the same, indeed increased slightly, the level of section 404 permitting decreased by more than 50 percent.

109. Telephone interview with Frank Torbett, U.S. Army Corps of Engineers, Washington, D.C. (Dec. 29, 1988).

110. Letter from Gregory E. Peck, *supra* note 107.

United States goes forward it is approved more than ninety-two percent of the time. The data from southern Louisiana, which has one of the heaviest loads of coastal permitting in waters that are traditionally navigable and uncontestedly of national economic importance,<sup>111</sup> are even less encouraging. In 1987, 498 section 404 permits issued and four were denied; in 1988, 554 permits issued and only three were denied.<sup>112</sup> The conclusion seems inescapable that neither the section 404 process nor the current application of its alternatives test has done more than slightly reduce the rate of activity in waters of the United States.

Lest these data appear inconclusive, and the illustrations offered earlier appear isolated or selective, the United States General Accounting Office (GAO) has recently surveyed the permitting program in five Corps districts and arrived at the same conclusion.<sup>113</sup> In a 1988 report, the GAO estimated that, while the Corps often adopts harm-mitigating conditions suggested by EPA and the USFWS,<sup>114</sup> the Corps issues these permits, over the protests of these two agencies that the permits be denied, more than one-third of the time.<sup>115</sup> These differences are rarely appealed to higher authorities on the belief that such appeals are futile, and indeed the few appeals that are lodged do not appear to change the outcome.<sup>116</sup> These differences arise largely over alternatives<sup>117</sup> and the Corps' deference to the applicant's statement of purpose and need, a practice that Corps personnel have acknowledged all but nullifies the alternatives test "because applicants can easily state their purpose in a way that circumvents the analysis."<sup>118</sup> Where alternatives are considered, their effect is limited by the Corps' reliance on "the economic impact from the applicant's standpoint."<sup>119</sup> In the words of an EPA Region VI employee (a region that oversees all permitting along the Louisiana and Texas coastline), in the "majority of cases" the Corps' practice is to issue permits "for whatever the appli-

111. See Houck, *Land Loss in Coastal Louisiana: Causes, Consequences and Remedies*, 58 TUL. L. REV. 3, 98-99 (1983) (estimating the total value of the Louisiana Coastal Zone at \$216 billion).

112. Telephone Interview with Roger Swindler, U.S. Army Corps of Engineers, New Orleans, Louisiana (Feb. 2, 1989).

113. *Id.*

114. See GAO REPORT, *supra* note 10.

115. *Id.* at 52.

116. *Id.* at 52.

117. *Id.* at 52.

118. *Id.* at 25, 26.

119. *Id.* at 27. Eliminating alternatives was not, however, all that significant to one Corps official, because the Corps went on to issue or deny permits "based on a full consideration of the project," and not simply through the section 404(b)(1) guidelines—the public interest test, again. *Id.*

cant wants with very little consideration given to the 'test' within the Guidelines that addresses prohibition and alternatives."<sup>120</sup>

A GAO report is unique in that it provides an opportunity to all agencies to respond to its findings while the findings are still in draft form. The Corps' response to the analysis of its treatment of alternatives provides the most revealing illustration available of the chasm that had developed between itself and EPA:

While the Corps continues to base the denial of some permit applications on the availability of less environmentally damaging practical alternatives, *it is not reasonable to take a stance that would result in denial of all non-water dependent 404 applications based on lack of proof that no practicable alternatives exist.*<sup>121</sup>

This "stance" is, of course, on its face, precisely what the EPA guidelines require.

We have now arrived at a fullblown, institutional schizophrenia over section 404 at its most critical juncture. To EPA, alternatives are the key to an effective section 404 program, the first consideration in the process. To the Corps, they have been but a factor in determining whether, on balance, a permit should issue. The EPA views alternatives as preventing all but indispensable dredge and fill. The Corps has viewed them as leverage in a large, permit-bargaining session aimed primarily at "mitigation" conditions to reduce harm,<sup>122</sup> a process criticized by environmental agencies as selling out for less than full protection<sup>123</sup> and by developers as something close to blackmail.<sup>124</sup> As will be seen, these divergent views have not been resolved in the exercise of EPA's authority to veto permits under section 404(c).

120. *Id.*

121. *Id.* at 5, app. II (emphasis added).

122. *Id.* at 26-28. See also *Bersani v. United States Envtl. Protection Agency*, 674 F. Supp. 405 (N.D.N.Y. 1987), *aff'd sub nom. Robichaud v. United States Envtl. Protection Agency*, 850 F.2d 36 (2d Cir. 1988), *cert. denied*, 109 S. Ct. 1556 (1989); *National Audubon Soc'y v. Hartz Mountain Dev. Corp.*, 14 Envtl. L. Rep. (Envtl. L. Inst.) 20,724 (D.N.J. 1983).

123. See *Consolidated Corps of Engineer Rules Settle Some Wetlands Issues, But Not Others*, 17 Env't Rep. (BNA) 1258 (1986) (comments of USFWS Director Frank H. Dunkle, recommending that mitigation be considered only as a last resort in the 404 process and observing that full mitigation was not being achieved). See also *Environmentalists, Federal Officials Debate Recommendations for Wetland Protection Plan*, 17 Env't Rep. (BNA) 1570 (1988) (comments of Vivian Newman, Chairman, National Coastal Committee, Sierra Club, noting that "[m]any of us are convinced mitigation is a sham and a delusion, certainly for fresh-water wetlands," and David Ortman, Northwest Representative of Friends of the Earth, noting that "[t]he underlying assumption is that the new wetland will be as good as the one lost, but that just isn't the case").

124. Wilmar, *Mitigation: The Applicant's Perspective*, NAT'L WETLANDS NEWSL., Sept.-Oct. 1986, at 16, 17.

C. *At Chasm's End: The Veto*

When all else fails—as has often occurred in the section 404 program—section 404(c) is to save the day.<sup>125</sup> Under the legislative compromise that left permitting authority with the Corps, where the EPA guidelines did not succeed in limiting Corps permits to those that were necessary and benign, EPA was authorized to veto permits upon a finding of “unacceptable adverse effects.”<sup>126</sup> Although this authority is phrased in terms of “effects,” the term “unacceptable” allows, if it does not indeed require, consideration of whether the losses are *avoidable* in determining if they are acceptable, which is to say, consideration of alternatives.

In practice, the veto appears to be saving few days. As noted earlier, the great majority of permit applications are granted, the EPA guidelines notwithstanding. Of an estimated 160,000 permits issued from the enactment of the program to January 1, 1989, EPA exercised its section 404(c) authority a total of *eight* times.<sup>127</sup> Of particular interest to this study, a brief examination of these vetoes shows that alternatives have played only a minor role.

The first veto did not come until January 1981 and concerned disposal of additional fill for a recreational facility (golf course, tennis courts, and clubhouse) on top of the North Miami Landfill site near Biscayne Bay, Florida.<sup>128</sup> The site, already piled forty feet high with solid waste and garbage, was apparently leaking into adjacent waters.<sup>129</sup> EPA's 404(c) determination restricted further fill to “clean fill” onto only the already-filled acreage of the landfill, citing “existing and anticipated water quality” impacts in and around Biscayne Bay.<sup>130</sup> No considerations of alternatives were cited.

In July 1984, EPA exercised its section 404(c) authority over a proposal to fill twenty-five acres of tidal wetlands for a warehouse and storage yard along a tributary of Mobile Bay, Alabama.<sup>131</sup> The appli-

125. 33 U.S.C. § 1344(c) (1982).

126. EPA's regulations incorporate the concept of “avoidability” in its determination of acceptability under section 404(b)(1). See 40 C.F.R. §§ 230.3(g), 230.10(a)(21) (1988).

127. The 160,000 permit figure is estimated from the annual issuance of more than 10,000 section 404 and section 10 permits a year over the 16-year life of the program. For the first eight years of the program, no section 404(c) determinations were made. Three of the eight determinations were made within the past calendar year. See *infra* notes 144-54 and accompanying text.

128. EPA, FINAL DETERMINATION OF THE ADMINISTRATOR CONCERNING THE NORTH MIAMI LANDFILL SITE PURSUANT TO SECTION 404(C) OF THE CLEAN WATER ACT, 46 Fed. Reg. 10,203 (1981).

129. *Id.*

130. *Id.*

131. FINAL DETERMINATION OF THE ADMINISTRATOR CONCERNING THE M.A. NORDEN SITE PURSUANT TO SECTION 404(C) OF THE CLEAN WATER ACT, 49 Fed. Reg. 29,142 (1984) [hereinafter FINAL DETERMINATION—NORDEN].

cant, M. A. Norden, had rejected upland alternative locations as "too costly," a position apparently endorsed by the Corps Division, which instructed the Mobile District to issue the permit.<sup>132</sup> In this case, however, although motivated by concern for the integrity of Mobile Bay, EPA conducted its own search for alternatives. Its proposed 404(c) determination cited both the applicant's failure to demonstrate the unavailability of alternatives and adverse estuarine impacts in its findings.<sup>133</sup> The final determination rested primarily on the "unacceptable effects on shellfish beds and fishing areas in Mobile River and Mobile Bay," but also found that "practical" alternative sites were available.<sup>134</sup>

The following year, EPA vetoed a project to impound wetlands on the Jack Maybank site of Jehosee Island, South Carolina, in order to manage water levels for waterfowl and mariculture.<sup>135</sup> EPA, viewing the cumulative affect of similar impoundments in the area (12,000 acres impounded within three miles of the project), again cited unacceptable impacts to fisheries and recreational resources as the basis for its action.<sup>136</sup> No discussion was made of alternatives.

In November 1985, EPA vetoed a permit for a flood control and land reclamation project along Bayou Aux Carpes in southern Louisiana.<sup>137</sup> The 3000 acres of wetlands within the project area hosted the American alligator, a threatened species, the osprey, and the wood duck (species of "special emphasis"),<sup>138</sup> and served as a water source for the Jean Lafitte National Park and the commercial fisheries of Barataria Bay. These and similar impacts were the basis of the 404(c) determination.<sup>139</sup> No reference was made to alternatives.

In May 1986, EPA issued its best-known and most vigorously litigated 404(c) decision on the Pyramid Mall in Massachusetts, a proposed shopping mall on a forty-nine-acre wetland known locally as Sweeden's Swamp.<sup>140</sup> Although it cited adverse effects to the habitat

132. Notice of Public Hearing, Proposed Determination to Prohibit, Deny, or Restrict the Specification, or the Use for Specification, of an Area as a Disposal Site, Public Hearing, 48 Fed. Reg. 51,732, 51,733 (1983).

133. *Id.* at 51,733.

134. FINAL DETERMINATION—NORDEN, *supra* note 131, at 29,143.

135. FINAL DETERMINATION CONCERNING THE JACK MAYBANK SITE PURSUANT TO SECTION 404(C) OF THE CLEAN WATER ACT, 50 Fed. Reg. 20,291 (1985).

136. *Id.*

137. FINAL DETERMINATION OF THE ASSISTANT ADMINISTRATOR FOR EXTERNAL AFFAIRS CONCERNING THE BAYOU AUX CARPES SITE PURSUANT TO SECTION 404(C) OF THE CLEAN WATER ACT, 50 Fed. Reg. 47,267 (1985). See also Creppel v. United States Army Corps of Eng'rs, 19 Env't. L. Rep. (Env't'l L. Insl.) 20,134 (E.D. La. 1988).

138. 50 C.F.R. § 10.13 (1988) (list of protected migratory bird species).

139. 50 Fed. Reg. 47,268 (1985).

140. FINAL DETERMINATION OF THE ASSISTANT ADMINISTRATOR FOR EXTERNAL AFFAIRS

of Sweden's Swamp, EPA broke new ground in its primary reliance on the availability of an alternative site for the mall.<sup>141</sup> On review, both the district and appellate courts found EPA's reliance on alternatives to be appropriate under section 404(c).<sup>142</sup>

Two years later, EPA's next section 404(c) action concerned the Russo development, discussed above, which proposed to fill wetlands for a warehouse complex in the Hackensack Meadowlands.<sup>143</sup> Although both NMFS and USFWS had commented that the water dependency and alternatives requirements of the 404 (b)(1) guidelines had not been addressed,<sup>144</sup> EPA chose to exercise its veto exclusively on the grounds of unacceptable impacts on shellfish beds and municipal water supplies, explaining: "EPA does not have further information on an alternative analysis. Rather than delay the 404(c) proceeding, we have elected to rest the 404(c) action solely on environmental impacts."<sup>145</sup>

Also in the summer of 1988, EPA vetoed a permit for the Henry Ram Estate and two pending applications to "rockplow" (i.e., crush the limestone substrate of) a total of 432 acres of wetlands in Dade County, Florida to prepare the land for agriculture.<sup>146</sup> The tracts at issue lay directly north of Everglades National Park, to which they provided surface and groundwater flow.<sup>147</sup> EPA cited these connections in its finding of "unacceptable adverse effects." No alternatives were mentioned, although the notice concluded that it "did not address potential filling activities in support of less consumptive uses of these sites."<sup>148</sup>

At the close of 1988, EPA vetoed the Lake Alma project,<sup>149</sup> a recreational reservoir on Hurricane Creek in Georgia that had suffered a checkered career of federal approvals and disapprovals from the U.S.

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CONCERNING THE SWEEDENS SWAMP SITE IN ATTLEBORO, MASSACHUSETTS PURSUANT TO SECTION 404(c) OF THE CLEAN WATER ACT, 51 Fed. Reg. 22,977 (1986) [hereinafter FINAL DETERMINATION—SWEEDENS].

141. *Id.* at 22,978.

142. See *infra* notes 242-62 and accompanying text.

143. FINAL DETERMINATION—RUSSO, *supra* note 104.

144. Recommendation of the Regional Administrator, Region II Concerning Wetlands Owned by the Russo Development Corporation in Carlstadt, New Jersey, Pursuant to Section 404(c) of the Clean Water Act, app. D. at 5 (1988).

145. *Id.*

146. Water Pollution Control; Final Determination of the Assistant Administrator for Water Concerning Three Wetland Properties Owned by Henry Ram Estate, Marian Becker, et. al. and Senior Corp., 53 Fed. Reg. 30,093 (1988).

147. *Id.* at 30,094.

148. *Id.*

149. FINAL DETERMINATION CONCERNING THE PROPOSED LAKE ALMA RECREATIONAL LAKE PROJECT ON HURRICANE CREEK, LAKE ALMA, MACON COUNTY, GEORGIA, 54 Fed. Reg. 6749 (1989) [hereinafter FINAL DETERMINATION—LAKE ALMA].

Department of Housing and Urban Development, the President's Council on Environmental Quality, the Corps, the USFWS, various reviewing courts, and finally the EPA, which at one point had withdrawn its objections to the permit but concluded by reversing itself and the 404 permit.<sup>150</sup> The veto was addressed exclusively to the impacts of the reservoir on a 7.2-mile stretch of bottomland hardwoods containing an estimated 1350 acres of wetlands and at least two rare varieties of plants.<sup>151</sup> Wetland losses, in the context of the more rapid loss of Georgia's freshwater wetlands, outweighed the mitigation offered in the form of upland habitat and a small number of "green-space" reservoirs.<sup>152</sup> Although EPA had suggested in earlier comments to the Corps that a swamp/creek recreational park could present an alternative means of meeting Lake Alma's purposes,<sup>153</sup> alternatives were not relied on in the 404(c) findings.

Beyond these formal determinations, as of January 1989 a new wave of section 404(c) vetoes are in the offing, and the indications are that they will rely more heavily on the availability of alternatives. At the time of this writing, EPA Region VI had objected to the Plantation Landing resort complex, earlier described, in part on the basis of alternative sites for water-based recreational housing.<sup>154</sup> EPA Region IX had issued a proposed 404(c) determination on Pamo Dam in San Diego, having identified at least two practicable alternatives.<sup>155</sup> EPA Region I had objected to the Big River project in Rhode Island, principally on grounds of its impacts on more than 1100 acres but also on the basic need for a water supply project; the agency preferred in effect a no action alternative.<sup>156</sup> EPA Region IV had proposed to veto a complex of impoundments in the salt marshes of South Carolina, justified in part as "research" (but mainly as waterfowl hunting leases), on grounds that alternative research projects were already available and underway.<sup>157</sup> EPA's proposed 404(c) determination on the Ware Creek reservoir in Virginia, inundating 1325 acres of wetlands, asserts that it "has reason to believe that alternatives are available to James

150. Public Hearing on Proposed 404(c) Determination to Withdraw, Deny, or Restrict the Specification or Use of Portions of Hurricane Creek Floodplain and Portions of Unnamed Tributaries of Hurricane Creek, 53 Fed. Reg. 26,859 (1988).

151. FINAL DETERMINATION—LAKE ALMA, *supra* note 149 at 6750.

152. *Id.*

153. EPA Comment Letter to U.S. Army Corps of Engineers 3 (Jan. 13, 1987).

154. See *supra* notes 100-03 and accompanying text.

155. Determination to Prohibit, Deny, or Restrict the Specification of an Area for Use as a Disposal Site; Sante Ysabel Creek, San Diego County, California, 52 Fed. Reg. 49,082 (1987).

156. EPA Environmental News (Region I) (Jan. 25, 1989).

157. Notice of Public Hearing and Proposed Determination to Prohibit Specification Area as Disposal Site, 49 Fed. Reg. 30,111 (1984) (the action is presently being held in abeyance pending litigation in the South Carolina Supreme Court).

City County which will meet projected water supply needs at less environmental cost and which are economically feasible."<sup>158</sup> By the time this study is published, additional section 404(c) vetoes will have surfaced.<sup>159</sup> The chances are that each, following the lead of Pyramid Mall, will offer alternatives as at least a companion basis for its decision.

This said, one cannot expect wonders from an alternatives analysis under section 404(c). The first constraint is the statute itself, which predicates the vetoes on "unacceptable adverse effects"; EPA has been understandably cautious in expanding this authority from impacts to the larger view of alternatives. The second constraint is logistical, for each of these determinations reflects an extraordinary commitment of person-years and resources that no EPA region can maintain on more than one permit, perhaps two, at any one time. The Pyramid Mall controversy raged for more than two years before it even reached the courts; Lake Alma has doubtless outlived some of its original proponents. The last constraint is tactical, and relates to EPA's particular expertise, which is, after all, in aquatic resources and not in the real estate market, engineering, or private development. It is the prudent course for EPA, at the veto stage, to keep its determination within the arena of that acknowledged expertise which opponents will be least able to attack, and to which courts will be most likely to defer.

From this analysis, it is clear that section 404(c) is no cure for the failure of the 404 program to develop a coherent view of an alternatives requirement for wetlands permitting. The process has caught a few projects of larger-than-usual impact and may catch a few more, but its very process limits its applicability to a chosen and unlucky few. These chosen few, furthermore, offer little hope of consistency or predictability to environmentalists or to developers. While Russo's handful of acres in the Hackensack Meadowlands were vetoed, as will soon be seen, a gigantic Meadowlands development project itself escaped. While Lake Alma was sinking under the weight of its opposition, well more than 7.2 miles of similar bottomland hardwood creeks were being dammed and channelized, routinely, often with federal assistance.

In short, section 404(c) provides too little, too late, to steer the 404 program. What it can do, what it has started to do in Pyramid Mall, and what it should continue to do in future determinations is to

158. Announcement of a Public Hearing on the Proposed Determination to Prohibit, or Deny the Specification, or the Use for Specification of an Area as a Disposal Site: Ware Creek, James City County, Virginia, 53 Fed. Reg. 49,789 (1988).

159. See Obmascik, *EPA to Veto Two Forks Dam*, Denver Post, Mar. 25, 1989, at 1A, col.1: *infra* notes 457-59, 462 and accompanying text (describing Two Forks permit application).

clarify and broaden the scope of the alternatives requirement so that it will be better defined and more widely accepted by developers and by the courts.

*D. Suddenly . . . Glasnost?*

The beauty of life, and its greatest challenge, is change. In April 1989, after nearly a decade of outright hostility to the section 404 program, the section 404(b)(1) guidelines, and the responsibilities that they embodied, the Corps of Engineers performed one of the most astonishing about-faces in the history of federal environmental law. In a detailed, fourteen-page "interim guidance" memorandum from the Director of Civil Works, the Corps reinterpreted virtually every aspect of its development-oriented application of the (b)(1) guidelines. In particular, the Corps, directly and without equivocation, reformulated its view of alternatives in the section 404 permit process.<sup>160</sup>

The new guidance arose from a permit now familiar to readers of this article, the proposed Plantation Landing resort on Grand Isle, Louisiana,<sup>161</sup> and it may qualify as Louisiana's first contribution to environmental protection. As will be recalled, the permit had been approved largely because, since the applicant proposed a "fully-integrated, waterfront, contiguous water-oriented recreational resort complex," alternative locations were not available.<sup>162</sup> The memorandum demolishes that conclusion, its reasoning, and a halo of additional reasons that had long been given to support this and other permit decisions. One can only speculate why Plantation Landing should have been the trigger for such a sweeping new statement of policy, but the Plantation permit had been elevated, through the protests of EPA and NOAA, above Corps Headquarters to the Department of the Army<sup>163</sup> where new appointees were in charge. Perhaps the Corps saw the handwriting on the wall. Perhaps it was genuinely displeased by its own, previous handwriting. Whatever the reason, the memorandum goes to some length to characterize the New Orleans District Engineer's decision on Plantation Landing as an aberration, a departure from Corps policy. In fact, it was the policy itself, developed in those guidance memoranda and permit decisions noted above,<sup>164</sup> that changed.

160. Memorandum from Patrick J. Kelly, Director of Civil Works, to Commander, New Orleans Division, "Permit Elevation, Plantation Landing Resort, Inc.," (Apr. 21, 1989) [hereinafter Memorandum of April 21] (unpublished, on file with author).

161. See *supra* text accompanying notes 100-03.

162. See Memorandum of April 21, *supra* note 160, at 4.

163. *Id.* at 1.

164. See *supra* part II.B.

The first change was an endorsement of the principle that section 404 is intended to *discourage* development in wetlands.<sup>165</sup> Not to regulate development. Not to require decisions in the "public interest." Rather, to reach a substantive goal of wetlands protection. The wetlands dependency test, moreover, was intended to be even more discouraging, to increase the burden on would-be wetland development.<sup>166</sup> To deter further.

The stage thus set, or, more accurately, reset, the previous Plantation decision did not accomplish this goal. It gave "undue deference" to the views of the applicant in framing the purpose of the project.<sup>167</sup> It failed to examine independently why each aspect of this project—described in almost painful detail to include "339 condominium dwellings, 398 townhouse units, a motel, a restaurant, a cafe, a bar, a diving and fishing shop, and a convenience store"<sup>168</sup>—had to be located in the water.<sup>169</sup> It failed to put the applicant to its heavy burden of proof.<sup>170</sup> How could the Corps District have been so mistaken? Earlier Corps Headquarters guidance, following *Louisiana v. York's*<sup>171</sup> direction that "the purpose and need for the project must be the applicant's purpose and need,"<sup>172</sup> may have been misinterpreted. That guidance was intended to mean only that the alternatives examined be "practicable" to the applicant.<sup>173</sup> The controlling law here was not the Fifth Circuit's decision in *York*, the circuit within which New Orleans is located and from which the Corps' guidance issued, but, rather, the Corps' 1976 section 404 decision on the Marco Island development in coastal Florida.<sup>174</sup> As in the Marco Island decision, the Corps was not to be guided by applicant purposes but rather by "basic purpose[s]," e.g., not by waterfront housing but by housing, not by waterfront dining but by serving food.<sup>175</sup> Any greater deference to the applicant's stated intentions would defeat the purpose of the wetlands dependency test and of the statute itself.

Voilà. One can only imagine the feelings of the New Orleans District Engineer—after the remand on the earlier Bayou Grand Caillou

165. Memorandum of April 21, *supra* note 160, at 2.

166. *Id.* at 3.

167. *Id.* at 4.

168. *Id.* at 10.

169. *Id.* at 5, 6.

170. *Id.* at 13, 14. Only if the applicant has "clearly rebutted" the presumptions against his wetlands location may the permit be approved. *Id.* at 13.

171. 761 F.2d 1044 (5th Cir. 1985); see *infra* text accompanying notes 307-14.

172. Memorandum of April 21, *supra* note 160, at 7.

173. *Id.* at 8.

174. *Deltona Corp. v. United States*, 657 F.2d 1184, 1188 (Ct. Cl. 1981); see *infra* text accompanying notes 195-99.

175. Memorandum of April 21, *supra* note 160, at 11.

permit virtually directing its issuance in accordance with the applicant's stated intentions,<sup>176</sup> after the several guidance memoranda following *York*<sup>177</sup>—on reading this directive. Comparable feelings must arise in the hearts of administrators in the far-flung reaches of the Soviet Union on reading the latest directives of *Glasnost*. Were this all the memorandum contained, it would be major environmental news. The memorandum continues, however, in the fashion of a revolution that is just hitting its stride.

Among the reasons most often given by the Corps to disprove the availability of alternatives have been that they were "too costly";<sup>178</sup> that the project as proposed (and located in the wetlands) had a demonstrated public "demand";<sup>179</sup> that the wetland losses were "*de minimis*";<sup>180</sup> and that, in any event, those losses had been adequately "mitigated."<sup>181</sup> Dissecting these arguments separately, the April guidance noted that, since wetlands are cheap, wetlands development is almost universally less costly.<sup>182</sup> Such savings, previous Corps guidance notwithstanding, were simply "not a factor which can be used to justify permit issuance under the Guidelines."<sup>183</sup> As for the "needs" factor, the popularity of wetlands locations—for a wetlands recreational complex or any other—was the very reason why section 404 conferred on the Corps its "important . . . environmental mission."<sup>184</sup> The fact that "demand" exists for a wetland development is "irrelevant" to the question of waterdependency and alternatives.<sup>185</sup>

Turning next to the question of wetlands impacts, the memorandum highlighted a conclusion within the Plantation Landing decision document that the losses in question were "a very small portion of similar habitat within the project vicinity," a statement that, on its face, is incontestably accurate.<sup>186</sup> But this conclusion "ignores the fact that the cumulative effects" of many such projects can lead to significant losses.<sup>187</sup> The destruction of twenty-two acres, even in a landscape of several million acres, within which natural losses are orders of magnitude larger, "cannot be dismissed as unimportant."<sup>188</sup> Lastly,

176. See *supra* text accompanying notes 84-93.

177. See *infra* text accompanying notes 307-14.

178. See *infra* text accompanying notes 271-74.

179. See *supra* text accompanying notes 103-05.

180. See *infra* text accompanying notes 263-70.

181. See *infra* text accompanying notes 275-85.

182. Memorandum of April 21, *supra* note 160, at 8, 9.

183. *Id.* at 9.

184. *Id.* at 10.

185. *Id.*

186. *Id.* at 12.

187. *Id.*

188. *Id.* at 13.

on the role of mitigation, such considerations only "come into play" if the applicant has "clearly rebutted" the presumptions established against wetlands development in section 404 and its guidelines.<sup>189</sup> Mitigation is the last resort.

Leaving nothing to chance, the April memorandum recapitulates its guidance for consideration of the Plantation Landing application, "and comparable future proposals."<sup>190</sup> First, "each component" of the project must be examined to see if it is "water dependent," in light of the project's "basic purpose."<sup>191</sup> Components that fail this test are presumed to have upland alternatives; they are further presumed to be severable from other water dependent parts of the project.<sup>192</sup> Only if the applicant can rebut these presumptions with "clear and convincing" evidence<sup>193</sup>—and without the supporting arguments of "costs," "demand," "negligible impacts," and "adequate mitigation"—will the 404(b)(1) guidelines be satisfied.

One emerges from this memorandum with a breathless sense of having watched a volcano: an unexpected, powerful, and landscape-altering event. How much of the terrain is altered, and for how long, are open questions. The memorandum is addressed only to the New Orleans District, through the Lower Mississippi Division; there are many Corps Districts, and each has had its Plantation Landing. For the moment, however, the excruciating pressure that the Corps' intransigence placed on the section 404 program has been eased. The interim guidance allows room for more deliberate consideration of its underlying question—the proper role of alternatives.

### III. SECTION 404 ALTERNATIVES AND THE COURTS

Against this background of warring agencies, and no doubt in part because of it, the confusion over section 404's alternatives requirement has continued in the courts. No two cases are the same. Every applicant for a section 404 permit owns a little more or a little less property, proposes a project of different ambitions, and has differing degrees of flexibility in carrying them out. Section 404 sets the stage for the wearisome, grinding process of applications, assessments, oppositions, justifications, and reviews that follow, more than eleven thousand times a year. Lawsuits reflect but a tiny fragment of these decisions. They also reflect, however, the best efforts of judges to de-

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189. *Id.* at 13, 14.

190. *Id.* at 12.

191. *Id.* (emphasis in original).

192. *Id.*

193. *Id.*

termine how broadly alternatives under section 404 are to be considered and how forcefully they steer development away from special aquatic areas. The cases on point are not numerous. Over the sixteen-year life of section 404, no more than a dozen reported federal decisions have treated the question of alternatives in more than a casual fashion; most litigation has centered on the procedural issues of jurisdiction and exemptions. Alternatives get to the substance of the decision, dangerous grounds for plaintiffs and courts alike. Inevitably, however, as jurisdictional issues are clarified these grounds for decision are being approached and challenged. Perhaps as inevitably, their results divide along "hard" and "soft" lines that mirror the fundamental differences between the EPA and the Corps.

#### *A. Hard Looks and Unhappy Developers*

Corps regulation of wetland development got off to an aggressive start in 1969 with the Corps' decision to deny a section 10 permit, upheld in *Zabel v. Tabb*.<sup>194</sup> This momentum reached a peak in the 1970s, with the Corps' denial of the Deltona Corporation's proposal to develop 10,000 acres around five separate estuaries on Florida's Marco Island into a "water oriented residential community."<sup>195</sup> Deltona had purchased this property for development as early as 1964 and had obtained all necessary state and local permits,<sup>196</sup> but was since caught in the meshes of increasingly stringent federal regulations, most notably section 404. As the Court of Claims noted, Deltona was "no longer able to capitalize upon a reasonable investment-backed expectation which it had every justification to rely upon until the law began to change."<sup>197</sup> Against this background, Deltona's chief claim was that permit denial constituted an unconstitutional taking without compensation. To address the claim the court turned, as it must, to the question of alternatives and found that Deltona had obtained permission to develop approximately twenty-five percent of the wetland areas it most desired, and that it owned an additional 111 acres of uplands suitable for residential development.<sup>198</sup> On these findings, Deltona's "remaining land uses" were "plentiful,"<sup>199</sup> and the takings claim was denied.

194. 430 F.2d 199 (5th Cir. 1970), *cert. denied*, 401 U.S. 910 (1971).

195. *Deltona Corp. v. United States*, 657 F.2d 1184, 1188 (Ct. Cl. 1981). The proposal was approved in part for development already underway in areas already degraded; subsequent development was denied. *Id.*

196. *Id.* at 1188-89.

197. *Id.* at 1191.

198. *Id.* at 1192. Indeed, the market value of the 111 acres of uplands more than doubled Deltona's acquisition price for the total tract in 1964. *Id.*

199. *Id.*

The 1980s have seen a number of smaller, but *Deltona*-like, decisions under the section 404(b)(1) guidelines, upholding Corps denials of permits for residential development in wetlands. In *Shoreline Associates v. Marsh*,<sup>200</sup> a commercial developer proposed to fill 8.2 acres of tidal wetlands for a waterfront townhouse community with its own boat dock. Significantly, the EPA and the USFWS objected to the permit, *inter alia*, on the basis of available alternatives: the townhouses could be built on the upland portion of Shoreline's tract.<sup>201</sup> Shoreline contested the denial of its permit on the grounds that its project depended upon boat access and contemplated preserving the upland portion of its tract in a "park-like atmosphere."<sup>202</sup> The court disagreed. The "primary aspect" of the project was townhouses, not boating, the court reasoned.<sup>203</sup> Shoreline had failed to meet its burden under the guidelines of showing why the townhouses needed to be located on the water, "except for its preference to build on the wetlands."<sup>204</sup> The developer's preference was not enough.

Similarly, in *Korteweg v. United States Army Corps of Engineers*,<sup>205</sup> the Corps denied a permit to a developer for six residential lots along Connecticut's Mystic River, each furnished with its own boat slip. Affirming the judgment of the Corps and a reviewing federal magistrate, the court found first that the development—boat slips notwithstanding—was not water dependent. To be sure, the docks would make the housing "more valuable and more marketable"; they were not, however, "essential to the units" nor "integral to their residential use."<sup>206</sup> The project purpose was not houses-on-the-water, as the developer would style it, but, rather, "a very simple land use, six residential units."<sup>207</sup> The developer had "no fixed right to locate a residential project, nor the right to put it on his choice of aquatic sites."<sup>208</sup> The record did not, and needed not, show that alternative house sites were available; under the guidelines, alternatives are presumed available for nonwater dependent activities unless and until disproven. No such showing was made.<sup>209</sup> Indeed, given the court's formulation of the project—residential housing—no such showing may have been possible.

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200. 555 F. Supp. 169 (D. Md. 1983)

201. *Id.* at 179.

202. *Id.*

203. *Id.*

204. *Id.*

205. 650 F. Supp. 603 (D. Conn. 1986).

206. *Id.* at 605.

207. *Id.* at 604.

208. *Id.* at 605.

209. *Id.* at 604.

The developers in *AJA Associates v. United States Army Corps of Engineers*<sup>210</sup> proposed to construct seawalls along Florida canals and to backfill to them from residential lots—standard practice in the development of coastal Florida.<sup>211</sup> The reason for the seawall, AJA Associates explained—exasperated perhaps by several years of negotiations—was “because that is where it is”; no alternatives were available because “I have spent good money for this site; ergo, it would not be feasible to spend money for another site.”<sup>212</sup> The Corps found that “practical alternatives . . . for shoreline protection” were available,<sup>213</sup> a finding that the Third Circuit, while disposing of the case on other grounds, strongly suggested should decide the case on the merits.<sup>214</sup>

In *Buttrey v. United States Army Corps of Engineers*,<sup>215</sup> the Corps denied a permit for the channelization of a bayou in southern Louisiana, to facilitate neighboring residential development. Interpreting both Corps and EPA regulations under section 404, the court found that “it would hardly be putting the case too strongly” to say that “the Clean Water Act and the applicable regulations do not contemplate that wetlands will be destroyed because it is more convenient than not to do so.”<sup>216</sup> As for the role of economics in this consideration, the developer’s proffered evidence that “\$3 million or so in public jobs” would be created by the project was irrelevant; it was not the kind of economic benefit contemplated by the regulations.<sup>217</sup> The location of the project along the bayou was simply a convenience, and its denial was appropriate.

In a final case involving residential development, *Hough v. Marsh*,<sup>218</sup> the court took the longer step of reversing a Corps decision permitting a private development of modest proportions on Martha’s Vineyard: two houses and a tennis court. The development would fill only one-quarter acre.<sup>219</sup> On the other hand, one-quarter acre on Martha’s Vineyard is not exactly a free commodity, and the local op-

210. 817 F.2d 1070 (3d Cir. 1987).

211. *Id.* at 1071.

212. The lot in question was surrounded by similar development. *Id.*

213. *Id.* at 1072.

214. *Id.* at 1074 (“We note, however, that the papers submitted to this Court indicate that AJA’s remaining arguments may also be meritless, and resolution of the case on a motion for summary judgment may be appropriate.”).

215. 690 F.2d 1170 (5th Cir. 1982).

216. *Id.* at 1180.

217. *Id.*

218. 557 F. Supp. 74 (D. Mass. 1982).

219. *Id.* at 76.

position was apparently fierce.<sup>220</sup> Despite opposition as well from the USFWS and NMFS—although EPA had registered no objection—the Corps concluded that the applicants' "right of reasonable use of [their] property for reasonable residential purposes" overrode the "minimal impact" of the development.<sup>221</sup> Underlying this conclusion was the Corps' finding that, although the project was not water dependent, no other lots were reasonably available in the immediate area for two houses and a tennis court.<sup>222</sup> This finding was, in turn, based on a letter to the same effect, fourteen months earlier, from a local real estate broker. The court found this basis to be no longer timely, of questionable accuracy, and inadequately limited to "the immediate area."<sup>223</sup> The court also failed to accept the assumptions that the houses had to be constructed "side-by-side" and that, in any event, the economics of alternative sites would be prohibitive.<sup>224</sup> The court remanded for a new decision based on a larger view of the project and its alternatives.<sup>225</sup>

To this point, each of the cases described has involved residential development. Similar results have been reached, albeit more sparingly, in consideration of alternatives for municipal and commercial development. In *Van Abbema v. Fornell*,<sup>226</sup> the applicant for a permit for a coal loading facility on the Mississippi River presented the Corps with the usual evidence showing that alternative sites for the facility were neither economical nor feasible.<sup>227</sup> The proposal generated an uproar, however,<sup>228</sup> and the district engineer denied the permit, only to have his decision reversed by the division engineer once the Governor of Illinois expressed support for the project.<sup>229</sup> The ensuing lawsuit was based on section 10 of the Rivers and Harbors Act and NEPA,<sup>230</sup> and it bottomed on the proper analysis of alternatives. The court was quick to distinguish "alternatives by which an applicant can reach his goals [from the] general goal of the action"; here, the general

220. *Id.* at 77. Two hundred fifty-nine written objections to the project were received, along with a petition of over 200 signatures; a single letter supported the project. *Id.*

221. *Id.*

222. *Id.* at 83.

223. *Id.* at 84.

224. *Id.* at 84.

225. *Id.* at 84, 88.

226. 807 F.2d 633 (7th Cir. 1986).

227. *Id.* at 642.

228. *Id.* at 635 (hundreds of comments were received on the proposal).

229. *Id.* at 635, 641.

230. These bases for the suit distinguish it from section 404, but given the weaker language of the Corps' public interest review regulations under section 10, the Seventh Circuit's analysis is all the more relevant to the section 404(b)(1) guidelines.

goal was to get coal to ships, not to own waterfront coal yards.<sup>231</sup> The goal so stated, the burden was on the Corps—once reasonable questions had been raised—to probe and to defend a conclusion that alternatives, including the alternative of trucking the coal to ships, were not available.<sup>232</sup>

The applicant in *North Carolina v. Hudson*<sup>233</sup> was the city of Virginia Beach, Virginia, which proposed a water intake and pipeline from a river basin just north of the North Carolina border, in order to supply its future water needs. The city's studies in support of its application were conceded by the court to have explored "every conceivable source" of water.<sup>234</sup> At issue in the case was the Corps' acceptance of the need for the project that underlay these studies,<sup>235</sup> the question was whether Virginia Beach needed a new, autonomous source of "all the water it would use in the next fifty years."<sup>236</sup> This "needs" analysis was, under the Corps' own regulations, to be distinguished from the applicant's narrower purposes, and was to be stated in "as broad, generic terms as possible."<sup>237</sup> The Corps could not "accede to Virginia Beach's desire to have an autonomous water supply," given the environmental costs, without looking at alternative supply options—even if less desirable to the city.<sup>238</sup>

A final case of this genre, *Monongahela Power Co. v. Marsh*,<sup>239</sup> ← involved a hydroelectric dam licensed by the Federal Power Commission (FPC) for the Canaan Valley of West Virginia. The Corps had denied a permit under section 404, citing both unacceptable adverse impacts and the availability of feasible alternatives.<sup>240</sup> As the appeal challenged the jurisdiction of the Corps even to permit the dam, the court reached the question of alternatives in an oblique, but relevant, way. The assertion that section 404 did not apply to FPC-licensed projects was based in large part on the allegedly similar reviews conducted by the Commission under its various authorities, including NEPA. The Court distinguished these reviews, which "imposed no direct restraints" on FPC's determinations, did not "indicate how FPC should treat the information it received," and failed to "obligate" the Commission "to seek specific goals in any wise analogous to those

231. *Id.* at 638.

232. *Id.* at 642.

233. 665 F. Supp. 428 (E.D.N.C. 1987).

234. *Id.* at 432.

235. *Id.* at 444.

236. *Id.* at 445.

237. *Id.* (citing 33 C.F.R. § 230 app. B, at § 11b(4) (1988)).

238. *Id.* at 446.

239. 809 F.2d 41 (D.C. Cir. 1987).

240. *Id.* at 43.

the Corps must strive for" under section 404.<sup>241</sup> Consideration of alternatives was one matter. Section 404 was considerably more. So much so, that its jurisdiction attached.

Which brings us to *Bersani v. United States Environmental Protection Agency*,<sup>242</sup> to date the most tough-minded interpretation of the requirements of alternatives analysis under section 404. At issue was the Pyramid shopping mall proposed for an eight-acre tract of land in Massachusetts, conveniently close to an interstate highway, inconveniently burdened with a 49.5-acre wetland, Sweeden's Swamp. The applicants had begun the process of approvals for state permits nearly ten years earlier and had litigated for those approvals through the Massachusetts Supreme Court.<sup>243</sup> As the machinery for federal approvals moved into gear, EPA opposed the project based on Pyramid's failure to disprove the availability of nonwetland alternatives. The Corps investigated in particular one alternative site, three miles away in the town of North Attleboro, and proposed denial of the permit on the basis of this site's feasibility and availability.<sup>244</sup> Meanwhile, Pyramid, facing imminent denial of its project, developed a proposal to mitigate the project's impact by restoring a 36-acre gravel pit to wetlands.<sup>245</sup> Corps headquarters found this mitigation plan to have reduced the shopping mall's adverse effects to the point where there was "no easily identifiable difference" between the alternative proposals.<sup>246</sup> Viewing the two alternatives on their faces, furthermore, the Corps concluded that:

From the point of view of the applicant in this case, it appears that the North Attleboro site is not available. The north site is controlled by a competitor who has an interest in developing a regional shopping mall in the same trade area as the applicant. Even if it were available to the applicant, he makes a convincing argument that it would not successfully fulfill the purposes of his proposed project, from his particular point of view.<sup>247</sup>

EPA then invoked its rarely exercised authority under section 404(c) to review and, ultimately, veto the project. The EPA determination was based primarily on the availability of the alternative North Attleboro site. Pyramid took that determination to federal court.

241. *Id.* at 52.

242. 674 F. Supp. 405 (N.D.N.Y. 1987), *aff'd sub nom.* Robichaud v. United States Envtl. Protection Agency, 850 F.2d 36 (2d Cir. 1988), *cert. denied*, 109 S. Ct. 1556 (1989).

243. *See id.* at 409; *see also* Responsible Envtl. Management v. Attleboro Mall, No. 4383 (Mass. Sup. Jud. Ct. Aug. 12, 1987).

244. *Bersani*, 674 F. Supp. at 410.

245. *Id.*

246. *Id.*

247. *Id.*

Perhaps because it was so thoroughly litigated, the case addressed a range of issues under the section 404(b)(1) guidelines, some for the first time. To begin, the administrative hearing officer found, and the federal reviewing courts concurred, that, although this was a proceeding under section 404(c), EPA appropriately relied on the 404(b)(1) guidelines in arriving at its 404(c) decision.<sup>248</sup> A decision on whether wetlands losses were "unacceptable" in terms of section 404(c) necessarily included whether the losses were avoidable.<sup>249</sup> From this point forward, the 404(b)(1) guidelines were at issue.

The EPA Administrator's determination began with the proposition that the purpose of the guidelines' alternative test was to "direct development away from sensitive aquatic resources."<sup>250</sup> The Second Circuit found, similarly, that "the purpose is to create an incentive for developers to avoid choosing wetlands."<sup>251</sup> The guidelines were more than an exercise in education; they were an exercise in reaching a substantive result, and alternatives were the lever. The rulings then addressed Pyramid's central claim, that the alternative North Attleboro site was neither feasible nor available. On the question of feasibility, EPA granted that the applicant's proposal was a "starting point" for identifying the project purpose.<sup>252</sup> It further conceded that the feasibility analysis does not focus on alternative uses of the site in question, but rather on "alternative sites (or designs)" for the "basic project purpose."<sup>253</sup> Here the project purpose was a regional shopping mall. The North Attleboro site may have had significant drawbacks in the eyes of Pyramid's developers—indeed Sweden's Swamp may be "by far the preferred site (with its 'excellent' location, access, and visibility)," factors which "may well be the case from strictly an economic perspective,"<sup>254</sup> but, as the district court phrased it, the alternatives test first requires "only that other sites be feasible, not that they be equal or better."<sup>255</sup> In contrast to the Corps' interpretation of the guidelines, which focused on the applicant's "particular point of view," the court went on to explain: "Since an applicant presumably usually selects the site which is best from his perspective, alternatives are al-

248. *Id.* at 415 (quoting *Newport Galleria Group v. Deland*, 618 F. Supp. 1179, 1182 n.2, 1184 (D.D.C. 1985)).

249. *Id.* at 412.

250. FINAL DETERMINATION—SWEEDENS, *supra* note 140.

251. *Robichaud v. United States Environmental Protection Agency*, 850 F.2d 36, 44 (2d Cir. 1988), *cert. denied*, 109 S. Ct. 1556 (1989).

252. FINAL DETERMINATION—SWEEDENS, *supra* note 140.

253. *Id.*

254. *Id.*

255. *Bersani*, 674 F. Supp. at 415.

most by definition 'second best'; to eliminate non-wetland sites on that basis would be inappropriate."<sup>256</sup>

The North Attleboro site was thus feasible, but was it available? Pyramid claimed not, because the site had been purchased by a competing developer. EPA claimed otherwise, because at the time Pyramid was exploring its development options the site was on the market. The Second Circuit upheld EPA's "market entry" approach, reasoning that to view alternatives at a later date, when they may have disappeared, would defeat the purpose of the Act and the guidelines.<sup>257</sup>

A third issue, not pressed on appeal, was the effect of Pyramid's offer of mitigation in the review process and in particular the search for alternatives. Although as noted above, the Corps of Engineers relied on Pyramid's mitigation project as a factor in its analysis, EPA's administrative determination explicitly set mitigation aside in order to review alternative sites.<sup>258</sup> This approach was based in part on the uncertainty surrounding an untested mitigation project, but it was also premised on the viewpoint that, under the guidelines, the first objective was to avoid harm.<sup>259</sup> EPA's view was at least implicitly approved on appeal.

To the *Bersani* court, then, an alternative to a large commercial development was feasible although it was neither the developer's choice nor the developer's most profitable option; the availability of this alternative would be measured at the time the developer's own, internal choice is being made; and offers of mitigation would not fit this alternatives analysis but, rather, would follow it to offset losses that could not otherwise be avoided. The practical effect of *Bersani* was to deny a permit to a shopping mall, a proposition that few who place any faith in the section 404 program would find remarkable. The *Bersani* dissent, however, found this result more than remarkable.<sup>260</sup> In its view, the majority mistook section 404's "basic purpose," which is not to provide an incentive for developers to avoid choosing wetlands but, rather, to provide a balancing analysis between the "biological integrity" of a wetland area and "commerce and other economic advantages."<sup>261</sup> Alternatives are but a "factor" in this determination.<sup>262</sup> This relatively free-wheeling, balancing approach is, of course, reminiscent of the Corps' public interest review regulations

256. *Id.*

257. *Bersani*, 850 F.2d at 43-44.

258. FINAL DETERMINATION—SWEEDENS, *supra* note 140, at 3.

259. *Id.*

260. *Bersani*, 850 F.2d at 48 (Pratt, J., dissenting).

261. *Id.*

262. *Id.* at 49.

and has found a secure home in a second line of cases interpreting the alternatives requirement of section 404.

## 2. Soft Looks and Lost Wetlands

The search for a softer standard may begin as appropriately as anywhere in Tidewater Virginia, with *1902 Atlantic Ltd. v. Hudson*<sup>263</sup> and an application to fill eleven acres of, as the reviewing court saw it, a "borrow pit . . . of sand and mud" containing less than three quarters of an acre of wetlands, zoned industrial, leveed off by the embankments for a railroad line and two highways, and surrounded by heavy traffic, a fertilizer plant, an oil refinery, a coal fired power plant, and an automobile junkyard.<sup>264</sup> The eleven acres in question had in fact been high and dry, until about ten years previously, when they were excavated for fill for a local expressway.<sup>265</sup> The owner proposed to fill the site for industrial development, only to find a skeptical Corps of Engineers, EPA, and USFWS, who viewed the activity as appropriate for upland locations.<sup>266</sup> The applicant responded that alternative sites would not "accept the same quantity of fill" as this one, and therefore would not offer "the same public benefit of releasing the pressure on local landfills," adding in effect a new project purpose: a wetlands landfill.<sup>267</sup> Hard cases make hard law. To make this one harder, in the ensuing negotiations, the owner offered to reduce the amount of fill by half. At this point, the court saw the question before it as whether the Corps could "prevent the owner of his property from making a non-water dependent use where no economically feasible water dependent purpose for the property exists."<sup>268</sup> So phrased, the question answered itself. The Corps' reliance on the "so-called water dependency requirement" was arbitrary and capricious.<sup>269</sup> Such reliance was misguided, and slighted the importance of the many factors enumerated in the Corps' public interest review guidelines.<sup>270</sup> Ironically then, in one of the few cases in which the Corps has rejected a commercial use of wetlands, the deliberate vagueness of its regulations with regard to alternatives failed to give enough support to its decision to carry it beyond a disbelieving court. Under a "factors" analysis, the

263. 19 Env't Rep. Cas. (BNA) 1926 (N.D.N.Y. 1987).

264. *Id.* at 1928.

265. *Id.*

266. *Id.* at 1929.

267. *Id.* Upland sites would also be, according to the applicant, from three to six times more expensive. *Id.* at 1930.

268. *Id.* at 1931.

269. *Id.* at 1941.

270. *Id.*

decision could not stand. The separate requirements of the 404(b)(1) guidelines were not discussed.

Another hard case arose in *Hudson River Defense League v. United States Army Corps of Engineers*,<sup>271</sup> where the owners of a homesite on the Hudson River proposed, initially, to construct a concrete bulkhead to protect their property from erosion. The Corps rejected the bulkhead, but approved a more modest scheme to place "riprap" and large rocks along the bank.<sup>272</sup> Even this compromise was resisted by neighbors, who brought suit challenging, among other claims, a failure to consider "the alternative of constructing a residence elsewhere" on the parcel.<sup>273</sup> The court held, to the contrary, that the Corps "explicitly discussed" the alternative of "no fill and relocation of the house."<sup>274</sup> While the details of this consideration were not given, the prospect of requiring that an existing house be moved, as opposed to placing rocks on the bank of the river, apparently stretched the notion of feasible alternatives near to the breaking point.

The more difficult, and more questionable, cases have involved direct takings of wetlands for large, commercial purposes. They have been accompanied by detailed "consideration" of alternatives, offered the prospect of major economic development, received the endorsements of local and state officials, and been accompanied by "mitigation plans" to offset their immediate effects. The leader of this set is *National Audubon Society v. Hartz Mountain Development Corp.*,<sup>275</sup> involving a multimillion dollar development of the Hackensack Meadowlands in Northern New Jersey for office buildings, warehouse distribution centers, transportation depots, and retail stores. The 406-acre site contained 278 acres of estuarine wetlands, 127 of which were to be filled. State agencies, including New Jersey's Department of Environmental Protection and the Hackensack Meadowlands Commission, approved the project.<sup>276</sup> The Commission's master plan for the Meadowlands called for major commercial development in this area, and provided other corridors for the preservation of 3500 acres of wetlands.<sup>277</sup> The Commission's plan was part of the New Jersey coastal program, federally approved.<sup>278</sup> Hartz Mountain developed a mitiga-

271. 662 F. Supp. 179 (S.D.N.Y. 1987).

272. *Id.* at 182. The owners had earlier been permitted to place fill along this shoreline, but the permit was revoked for want of a public hearing. *Id.* at 181.

273. *Id.* at 185.

274. *Id.* at 186.

275. 14 *Env'tl. L. Rep.* (Env'tl. L. Inst.) 20,724 (D.N.J. 1983).

276. *Id.* at 20,725.

277. *Id.* at 20,725-26.

278. *Id.* at 20,726.

tion plan to create "diversity of wetland habitats" by diking off eighty-eight acres of wetlands, to be fed by runoff from lawns and parking lots within the project.<sup>279</sup> Faced with the prospect of having to write an environmental impact statement, and at the apparent suggestion of the Corps of Engineers, Hartz Mountain eliminated a residential component of its application, ostensibly deferring that decision to another day.<sup>280</sup> The litigation centered largely on the legality of this maneuver under NEPA and on the need for an environmental impact statement. As a last consideration came compliance with the section 404(b)(1) guidelines.

The Corps determined that the "basic purpose" of the project was "the development of raw land for the purpose of profitably building a commercial-industrial complex."<sup>281</sup> The adjective "profitably" told the tale. At bottom, two alternatives were argued: separation of the development into clusters, which would minimize its impacts, and relocation outside the Meadowlands. Concentration in one cluster would, however, reduce access to transportation, and the "facilities would be far less attractive to prospective [clients]."<sup>282</sup> Separation into several clusters was neither "logical, cost effective nor in furtherance of the overall project purposes" to centralize the facilities.<sup>283</sup> Nor did scaling down the activities allow "the basic purpose of the activity to be achieved."<sup>284</sup> Of alternative sites, two within the Meadowlands could not be acquired, and those outside the district either "lacked sufficient . . . access" or were "not practical economic alternative[s]."<sup>285</sup> In short, gestures were made in all of the appropriate directions, but one has the certainty that they came as afterthoughts, late in the day. From the time New Jersey zoned the Meadowlands for exactly this type of development, the die was cast. The alternatives test has limitations that have nothing to do with its language. Strong as the language is, it is apparently interpretable as it will allow industrial parks in wetlands, particularly when they are the purpose of the plan.

The Corps permitted another commercial enterprise in *Friends of the Earth v. Hinz*,<sup>286</sup> where a logging company sought to fill a seventeen-acre tract next to its mill, as a storage area for exports. The pro-

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279. *Id.*

280. *Id.*

281. *Id.* at 20,731.

282. *Id.*

283. *Id.*

284. *Id.*

285. *Id.*

286. 800 F.2d 822 (9th Cir. 1986).

posal was accompanied by a mitigation project to restore a like-size parcel of pastureland to wetland condition.<sup>287</sup> No state or federal agencies opposed the permit. The court presaged its view of the section 404(b)(1) guidelines by citing the Corps' public interest review regulations at some length, then noting that the EPA guidelines "parallel" those of the Corps.<sup>288</sup> Arriving at the water dependency issue, the court found the Corps' examination to have been "reasonably thorough," and to have arrived at "a rational conclusion".<sup>289</sup> A storage area would be needed for exports, a conclusion that seems to leave unanswered whether this storage need take place in a wetland. As for practical alternatives, four sites were identified as available but two would be considerably more costly and two others were "logistically unfeasible in light of [the developer's] legitimate purposes."<sup>290</sup> The court went on to add that, "[w]hile an argument can be made that one of those sites was suitable, it would not be appropriate for us to overturn the Corps' contrary finding."<sup>291</sup> The Corps had done its "duty under law," and its decision "was not subject to reversal."<sup>292</sup> The Corps, after all, was "not a business consulting firm."<sup>293</sup> It was in "no position to conduct a feasibility study of alternative sites."<sup>294</sup> To require more would place "unsuitable responsibilities on the Corps, which receives over 14,000 permit applications per year."<sup>295</sup> Section 404 requires no more.

To complete the trilogy, plaintiffs in *Missouri Coalition for the Environment v. Corps of Engineers*<sup>296</sup> sued to enjoin the construction of a sports stadium in a floodplain near the City of St. Louis. Although the stadium facilities took no wetlands, a protective levee, as originally designed, would have crossed twenty-eight acres of wetlands, a figure subsequently reduced to 2.8 acres, which the applicant would mitigate by purchasing and improving a ten-acre wetland tract. No objections to the permit were made by more than a half dozen commenting federal and state agencies with environmental responsibilities, causing the court to observe that it was a "healthful American

287. *Id.* at 826.

288. *Id.* at 830.

289. *Id.* at 831.

290. *Id.* at 834.

291. *Id.*

292. For this proposition the court cited *Save our Wetlands, Inc. v. Sands*, 711 F.2d 634, 646 (5th Cir. 1983). What the court did not cite—or perhaps even appreciate—is that *Save Our Wetlands* was a case interpreting NEPA, not section 404; the Fifth Circuit found section 404 inapplicable to the activities in question. *Id.* at 648.

293. *Hinz*, 800 F.2d at 835.

294. *Id.* (citation omitted).

295. *Id.* at 835-36.

296. 687 F. Supp. 790 (E.D. Mo. 1988), *aff'd*, 866 F.2d 1025 (8th Cir. 1989).

trait" to distrust government agencies, "but to distrust them all at once?"<sup>297</sup> The lawsuit alleged violations of a grab bag of statutes, including section 404. For this reason or another, while the court discussed, and applauded,<sup>298</sup> the Corps' thorough review of more than a dozen alternative sites for the project, no determination was made as to whether the project was water dependent and no mention was made of the section 404(b)(1) guidelines. This was not a case for the niceties of federal regulations. This was a court dispensing justice as it saw the merits to be. And lest there be any misunderstanding on these merits, the court appended an "obiter dicta" posing the question, "Must we ignore as judges what we know as sports fans?"<sup>299</sup> Plainly not. St. Louis needed a new sports stadium.

A more difficult case on its equities arose in *City of Anagoon v. Hodel*,<sup>300</sup> where an Alaska Native corporation proposed to build a log transfer facility for timber it would harvest on Admiralty Island. In the Corps' view, its permit was for a commercial transfer facility for which there was no feasible alternative.<sup>301</sup> In the district court's view, however, the project was really one of "commercial timber harvesting," for which an alternative would be to exchange the lands in question on the island for lands elsewhere.<sup>302</sup> The Ninth Circuit held that this view was too broad and appeared to make "a broad social interest" the "exclusive project purpose."<sup>303</sup> This judgment should, rather, rest with the agency.<sup>304</sup> In a decision that should warm the Corps' heart, the court reasoned that, "when the purpose is to accomplish one thing, it makes no sense to consider the alternative ways by which another thing might be achieved."<sup>305</sup> This reasoning is, of course, quite circular: The question is, what "one thing" is being proposed? In this case, the exchange alternative was simply "too remote and speculative" to *any* "thing" to constitute a serious alternative.<sup>306</sup> But the language of this opinion will, no doubt, linger.

Which leads to the most difficult case in this series, a highwater mark for developers under section 404. The applicant in *Louisiana*

297. 687 F. Supp. at 800.

298. The court went so far as to emphasize that the Corps district engineer who conducted the review was a First Division Infantry veteran of the Vietnam War, a fact that apparently illustrated his thoroughness and impartiality. *Id.* at 799.

299. *Id.* at 804.

300. 803 F.2d 1016 (9th Cir. 1986).

301. *Id.* at 1021.

302. *Id.* (citation omitted).

303. *Id.*

304. *Id.*

305. *Id.*

306. *Id.*

*Wildlife Federation v. York*<sup>307</sup> intended to clear 5000 acres of bottom-land hardwood wetlands for agriculture. There was no regional development scheme here, no planned economic stimulus, no lineup of supporting state politicians and agencies. There was not even a mitigation plan to make the losses seem less stark. This project would simply destroy a 5000-acre wetland to grow soybeans. Plaintiffs relied directly on the section 404(b)(1) guidelines, and the conflict was unavoidable. The Corps found, as it seemed compelled to do, that neither growing soybeans nor increasing "net returns on assets" (the two basic purposes of the project, as the Corps saw them) was water dependent.<sup>308</sup> In the court's view, however, this finding simply called for "a more persuasive showing than otherwise" concerning the absence of alternatives,<sup>309</sup> citing *1902 Atlantic* with approval for the proposition that water dependency was not a "prerequisite" but rather (only) "a factor to consider in the application process."<sup>310</sup> As is more apparent in the district court opinion than that on appeal, plaintiffs argued that the question of alternatives should include alternative uses of the property, not simply ratify the use that the applicant had chosen to maximize his profit from the land.<sup>311</sup> Both courts responded that the Corps had a duty to "take into account the objectives of the applicant's project,"<sup>312</sup> and, indeed, it would be anomalous for the Corps not to do so. What *neither* court said was that the Corps was bound, in its consideration of alternatives, by the applicant's described use. In this case, in fact, the Corps was said to have considered "the lease or purchase of other lands,"<sup>313</sup> and the court itself considered testimony on alternative uses of the land including silviculture and leasing for recreational hunting, which uses it found insubstantial.<sup>314</sup>

However the project was formulated in *York*, the question of where-else-could-the-applicant-make-money was simply too broad,

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307. 761 F.2d 1044 (5th Cir. 1985).

308. *Id.* at 1047 (citation omitted).

309. *Id.*

310. *Id.* at 1047 n.10 (citing agency action in *1902 Atlantic Ltd. v. Hudson*, 19 Env't Rep. Cas. (BNA) 1926, 1930 (N.D.N.Y. 1987)).

311. *Louisiana Wildlife Fed'n v. York*, 603 F. Supp. 518, 528 (W.D. La. 1984), *aff'd in part, vacated in part*, 761 F.2d 1044 (5th Cir. 1985).

312. 603 F. Supp. at 528, 761 F.2d at 1048.

313. *York*, 603 F. Supp. at 528.

314. *Id.* at 528 n.33. To these facts, however, the Fifth Circuit felt compelled to add citations to *Hough v. Marsh*, 557 F. Supp. 74, 83 (D. Mass. 1982), which, as noted above, *reversed* a Corps permit decision in part because it was improperly limited to two-houses-with-tennis-court. These citations include *Shoreline Associates v. Marsh*, 555 F. Supp. 169, 179 (D. Md. 1983), *aff'd*, 725 F.2d 677 (4th Cir. 1984), where the Corps properly *refused* to limit its view of the project to the applicant's proposed house-with-dock, and *Roosevelt Campbello International Park Commission v. EPA*, 684 F.2d 1041 (1st Cir. 1982), which did not involve section 404 at all. *York*, 761 F.2d at 1048. Whatever the Circuit Court intended by these citations, they had no obvious bearing on the case before it.

and the question where-else-could-it-grow-soybeans apparently too narrow. A rigorous court, a vigorous EPA, or a plaintiff with the wherewithal to conduct an investigation could perhaps have exposed the softness of the alternatives analysis, and the availability of other sites. But rigorous courts are not the rule, and EPA intervention and well-heeled environmental plaintiffs are even less so. *York*, as matter of law, is a modest statement. The Corps looked and did not find; nor did anyone else. As a matter of result, however, the case is even more dramatic evidence than the Hackensack Meadowlands development that section 404 does not protect wetlands from even the most marginally necessary activities. In 1985, the year of the Fifth Circuit opinion, federal price support levels for soybeans were \$5.02 a bushel; the average market price was \$5.05 a bushel.<sup>315</sup>

#### IV. ALTERNATIVES ANALYSIS UNDER SIMILAR STATUTES

Given the fundamental importance of alternatives to any decision, it is not surprising that virtually every statute aimed at resources management and environmental protection mandates, in some fashion, the consideration of alternatives.<sup>316</sup> In operation, each of these statutes is plagued by the same conceptual problems over the scope of this consideration as is section 404 and reveals a similar split of opinion over how they should be resolved. However, three of the most similar statutes with alternatives requirements—NEPA, section 4(f) of the Department of Transportation Act, and the Endangered Species Act—do provide some guidance on how section 404 may be interpreted to work more effectively.

##### A. Section 102 of NEPA

The National Environmental Policy Act was enacted as a broad-spectrum remedy for all federal decision-making, an objective so vast that it could rely at best on the strength of public disclosure. Its central requirement, the preparation of an environmental impact statement (EIS), has nonetheless generated a steady stream of litigation and commentary since virtually its date of enactment.<sup>317</sup> Much of this

315. AGRICULTURAL STABILIZATION & CONSERVATION SERV., U.S. DEPT OF AGRIC., ASCS COMMODITY FACT SHEET, SOYBEANS 2 (1988).

316. See *supra* note 3; see also Clean Air Act §§ 172(b)(3), 69(3), 42 U.S.C. §§ 7502(b)(3), 7479(3) (1982); Clean Water Act § 301(b)(2)(A), 33 U.S.C. § 1311(b)(2)(a) (1982); Resource Conservation and Recovery Act of 1976 § 3004(o)(2), 42 U.S.C. § 6924(o)(2) (1982 & Supp. II 1984).

317. R. LIROFF, A NATIONAL POLICY FOR THE ENVIRONMENT: NEPA AND ITS AFTERMATH 142-88 (1976); COUNCIL ON ENVIRONMENTAL QUALITY, ENVIRONMENTAL QUALITY: 17TH ANNUAL REPORT 233-47 (1986); COUNCIL ON ENVIRONMENTAL QUALITY, ENVIRONMENTAL QUALITY: 16TH ANNUAL REPORT 162-75 (1985); 15 Years of Pollution Control Laws Reflect Intensive Period of

controversy has centered upon the scope and effect of alternatives.<sup>318</sup> No reconstruction of these cases or this literature is possible here, nor is it necessary. The point is that their view of alternatives depends largely, as does section 404, upon what their authors perceive that NEPA is trying to do.

NEPA's alternatives requirement got off to a strong start in *Natural Resources Defense Council v. Morton*,<sup>319</sup> in which the District of Columbia Circuit invalidated a mineral lease sale in the Gulf of Mexico on grounds that its EIS failed to consider such alternatives as, *inter alia*, the elimination of oil import quotas.<sup>320</sup> In this circuit's view, the required alternatives inquiry, while requiring no "crystal ball"<sup>321</sup> and while limited by a "rule of reason,"<sup>322</sup> was not limited even by the agency's legislative authority to implement an alternative, a proposition that has drawn its share of criticism.<sup>323</sup> The outcome in the case was affected, if not determined, by the court's view of the scope of the proposal itself, as a component of a national energy policy that would be determined by both the President and Congress.<sup>324</sup> It was also affected by the court's view of NEPA as a statute providing "a comprehensive approach to environmental management"<sup>325</sup> and a new way "to face problems" while "alternative solutions are still available,"<sup>326</sup> as opposed to the degradation allowed in the past by decision making "in small but steady increments."<sup>327</sup>

The President's Council on Environmental Quality echoed this

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*Institutionalization, Cleanup, Litigation, Investment, Public Awareness*, 16 *Env't Rep.* (BNA) 3 (May 3, 1985).

318. Benfield, *The Administrative Record and the Range of Alternatives in National Forest Planning: Applicable Standards and Inconsistent Approaches*, 17 *ENVTL. L.* 371 (1987); Goldman, *Legal Adequacy of Environmental Discussions in Environmental Impact Reports*, 3 *UCLA J. ENVTL. L. & POL'Y* 1 (1982); Hill & Ortolano, *NEPA's Effect on the Consideration of Alternatives: A Crucial Test*, 18 *NAT. RESOURCES J.* 285 (1978); Picher, *Alternatives Under NEPA: The Function of Objectives in an Environmental Impact Statement*, 11 *HARV. J. ON LEGIS.* 595 (1974); Rosen, *Cost-Benefit Analysis, Judicial Review, and the National Environmental Policy Act*, 7 *ENVTL. L.* 363 (1977). See also Schmidt, *The Statement of Underlying Need Defines the Range of Alternatives in Environmental Documents*, 18 *ENVTL. L.* 371 (1988); Wolman, *Selecting Alternatives in Water Resources Planning and the Politics of Agendas*, 16 *NAT. RESOURCES J.* 773 (1976).

319. 458 F.2d 827 (D.C. Cir. 1972).

320. *Id.* at 834.

321. *Id.* at 837.

322. *Id.* at 834-35.

323. Hayes & Hourihan, *NEPA Requirements for Private Projects*, 13 *B.C. ENVTL. AFF. L. REV.* 61 (1985); Comment, *The National Environmental Policy Act of 1969: What "Alternatives" Must an Agency Discuss?*, 12 *COLUM. J.L. & SOC. PROBS.* 221 (1976).

324. 458 F.2d at 835 & nn.17-18.

325. *Id.* at 836.

326. *Id.*

327. *Id.* (citing S. REP. NO. 296, 91st Cong., 1st Sess. 5 (1969)).

view of NEPA and its alternatives requirement in early guidelines<sup>328</sup> and in subsequent regulations providing a blueprint for the NEPA process.<sup>329</sup> The purpose of this process is not to produce "better documents" or even "excellent" documents, but rather, "better decisions" and "excellent action."<sup>330</sup> To this end, the guidelines require that the NEPA process be integrated with the actual decision making,<sup>331</sup> that it begin as early as possible,<sup>332</sup> and that it be organized to ensure that in some fashion, in one EIS or another, the fullest possible view of the proposed action is presented.<sup>333</sup> Alternatives are "the heart" of the environmental impact statement;<sup>334</sup> they are to be developed "in detail,"<sup>335</sup> cover a "full spectrum,"<sup>336</sup> and present a "clear basis" for choice,<sup>337</sup> including choices beyond the jurisdiction of the agency.<sup>338</sup> Where a project proponent or permit applicant is involved, an alternative is defined by what is "reasonable," and not by "whether the proponent or applicant likes or is itself capable" of carrying it out.<sup>339</sup> Similar to the section 404(b)(1) guidelines, the CEQ regulations place consideration of alternatives first in the process, following only the statement of "purpose and need" and preceding the discussion of environmental impacts themselves.<sup>340</sup> In a final attempt to elevate consideration of alternatives, the guidelines require that records of federal decisions identify the "environmentally preferable" alternative(s),<sup>341</sup> and how other considerations of policy were "balanced" in arriving at the option chosen.<sup>342</sup>

328. 36 Fed. Reg. 7724 (1971).

329. 40 C.F.R. §§ 1500-1517 (1988).

330. *Id.* § 1500.1(c).

331. *Id.* § 1501.2 ("[a]gencies will integrate the NEPA process with other planning at the earliest possible time to insure that planning and decisions reflect environmental values"); *id.* § 1502.1 ("[an environmental impact statement] shall be used . . . in conjunction with other relevant material to plan actions and make decisions"); *id.* § 1505.1 (NEPA and agency decision making).

332. *Id.* § 1501.2; see also *id.* § 1502.10.

333. *Id.* § 1502.14.

334. *Id.* § 1502.14(b).

335. *Id.*

336. Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18,026, 18,027 (1981) [hereinafter Forty Most Asked Questions].

337. 40 C.F.R. § 1502.14.

338. *Id.* § 1502.4(c).

339. Forty Most Asked Questions, *supra* note 336, at 18,027.

340. 40 C.F.R. § 1502.10.

341. *Id.* § 1505.2(b).

342. *Id.* The regulations as proposed by CEQ would have required an explanation for not adopting the "environmentally preferable" alternative. Council on Environmental Quality, Proposed Rules Implementing NEPA, 43 Fed. Reg. 25,230, 25,237-38 (1978). This requirement was dropped in the apparent belief that NEPA simply did not carry this much clout. Council on Environmental Quality, Final Rules Implementing NEPA, 43 Fed. Reg. 55,978, 55,996 (1978); see also *id.* at 55,983-84 (comments on § 1502.14).

The CEQ regulations and their particular emphasis on alternatives reflect a view of NEPA as an instrument of decision making and have led to a modest but steady flow of judicial opinions reversing agency decisions for their failure adequately to consider alternative courses of action.<sup>343</sup> At the same time, another line of decisions reveals a more limited view of the statute and the role of alternatives within it. These decisions derive their impetus from the Supreme Court's opinion in *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*.<sup>344</sup>

In *Vermont Yankee*, a Nuclear Regulatory Commission decision to license a power plant had been invalidated by the District of Columbia Circuit on grounds that included the Commission's failure to consider energy conservation as an alternative to the facility.<sup>345</sup> The Supreme Court, reasoning that "the concept of alternatives must be bounded by some concept of feasibility,"<sup>346</sup> reversed. As the Court saw it, energy conservation alternatives suggested "a virtually limitless range of possible actions"<sup>347</sup> that were relatively new to the United States as a matter of technology, and new to federal agencies as a matter of national policy.<sup>348</sup> In the context of a protracted licensing proceeding spanning almost a decade,<sup>349</sup> in which the opposing intervenors had been none too specific as to the conservation options they preferred,<sup>350</sup> NEPA did not require the Commission to go further. The Atomic Energy Act left the primary responsibility for determining the need for power with state utility commissions.<sup>351</sup> While NEPA has "altered slightly the statutory balance,"<sup>352</sup> its mandate to federal agencies is "essentially procedural."<sup>353</sup> As the Court would later say in an opinion refusing to enforce NEPA's substantive policies, "NEPA requires no more."<sup>354</sup>

The opinions in *Morton* and *Vermont Yankee* represent two almost polar points of reference on the horizon of cases interpreting

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343. *E.g.*, *Methow Valley Citizens Council v. Regional Forester*, 333 F.2d 810 (9th Cir. 1987), *rev'd sub nom.* *Robertson v. Methow Valley Citizens Council*, 109 S. Ct. 1835 (1989); *California v. Block*, 690 F.2d 753 (9th Cir. 1982); *Port of Astoria v. Hodel*, 595 F.2d 467 (9th Cir. 1979); *Massachusetts v. Clark*, 594 F. Supp. 1373 (D. Mass. 1984).

344. 435 U.S. 519 (1978).

345. *Id.* at 549, 555.

346. *Id.* at 551.

347. *Id.* at 552.

348. *Id.*

349. *Id.* at 557.

350. *Id.* at 553-54.

351. *Id.* at 550.

352. *Id.* at 551.

353. *Id.* at 558.

354. *Strycker's Bay Neighborhood Council v. Karlen*, 444 U.S. 223, 228 (1980).

NEPA's requirements for the consideration of alternatives. If all of these cases illustrate anything it is that the requirement that alternatives be discussed and disclosed runs against a strain of the human psyche strongly enough to arouse bitter resistance, even when it carries no requirement that an environmentally preferable alternative be chosen. The cases also illustrate that the concept of alternatives, even in a statute predicated on the fullest possible disclosure, is, to say the least, not "self-defining."<sup>355</sup> These opinions all take as their standard that the scope of alternatives be "reasonable," but apply it in ways that, when taken together, reflect the same dichotomy noted in the opinions under section 404.<sup>356</sup> As in section 404, the dichotomy arises from the court's view of what is being proposed. On its face, the oil lease in *Morton* is hard to distinguish from *Vermont Yankee's* nuclear plant. These opinions turned on whether the agencies were seen as dealing broadly with the need for energy or more narrowly with applications to produce it in a particular way.

To an extent, the alternatives requirement is made less critical under NEPA by the process of "tiering" that allows larger alternatives to be handled in broader, sometimes "programmatically" ways.<sup>357</sup> Without the shield of such a larger statement, however, courts and commentators seem willing to press agencies to consider fully alternatives within the most extensive range of their authorities. Under no circumstances is this range limited to the purposes of a particular applicant, a requirement that, as noted, runs contrary to the instincts of the permit program of the Corps of Engineers.

There is another factor at work in the NEPA cases with a lesson for section 404. Those opinions that treat the alternatives requirement most rigorously seem to agree in their belief that NEPA was intended to change decision making, a view clearly disputed in other NEPA cases. In section 404, Congress has gone a long way to remove this ambiguity. The intention of the Clean Water Act is to restore and maintain the waters of the United States.<sup>358</sup> The price is, however, correspondingly higher than under NEPA. Under the section 404 guidelines, alternatives may well defeat the project, as they may for proposals to take parks or endangered species. With these latter laws, the analogy to section 404 grows stronger.

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355. *Vermont Yankee*, 435 U.S. at 551.

356. See *supra* text accompanying notes 194-315.

357. See 40 C.F.R. § 1508.28 (1988) (CEQ definition of "tiering").

358. 33 U.S.C. § 1251 (1982).

B. Section 4(f) of the Department of Transportation Act

Section 4(f) of the Department of Transportation Act was enacted a few years earlier than NEPA in order to protect public parks and recreational areas from a more discrete if formidable threat, the federal aid transportation system.<sup>359</sup> To highway planners in particular, spurred on by entire industries of beneficiaries<sup>360</sup> and the incentives of up to ninety percent federal reimbursement,<sup>361</sup> public parks presented themselves as a low-cost and nondisruptive alternative. In section 4(f) and its counterpart in the Federal Aid Highway Act,<sup>362</sup> Congress forbade the Secretary of Transportation from approving any project using public recreational lands unless "there is no feasible and prudent alternative to the use of such land" and all possible steps were taken to minimize harm.<sup>363</sup> More than a disclosure statute, more than a review of alternatives, this language intended to protect these lands from these kinds of takings, unless there were no other way.

Any doubts about the strength of the congressional purpose were put to rest in *Citizens to Preserve Overton Park v. Volpe*,<sup>364</sup> where the Supreme Court overturned the approval of a six-lane expressway through a public park, zoo, golf course, and picnic grounds in downtown Memphis, Tennessee. Although the expressway would have been depressed below ground level to minimize its intrusion, the alternative of tunnelling under the park apparently had been rejected by highway planners as too costly.<sup>365</sup> The Supreme Court did not reach the merits of these contentions, but instead remanded for a new decision based on an interpretation of the statute that gave it near-continental force. In the Court's view, the requirement that there be no "feasible" alternative route admitted of "little administrative discretion;"<sup>366</sup> the Secretary would have to find that, "as a matter of sound

359. Department of Transportation Act of 1966, 49 U.S.C. § 1653(f) (1982). The "highway juggernaut" has been perceived as an American nightmare in a range of literature, including: D. BURWELL & M. WILNER, *THE END OF THE ROAD: A CITIZEN'S GUIDE TO TRANSPORTATION PROBLEM SOLVING* (1977); B. KELLEY, *THE PAVERS AND THE PAVED: THE REAL COST OF AMERICA'S HIGHWAY PROGRAM* (1971); H. LEAVITT, *SUPERHIGHWAY—SUPERHOAX* (1970); A. MOWBRAY, *ROAD TO RUIN* (1969).

360. D. BURWELL & M. WILNER, *supra* note 359, at 16-17 ("Of the ten largest corporations in the United States, eight have a direct interest in motor vehicle transport.")

361. *Id.* at 33-34.

362. Federal Aid Highway Act of 1968, 23 U.S.C. § 138 (1982). This article will use "section 4(f)" to describe the identical requirements of 49 U.S.C. § 1653(f) and 23 U.S.C. § 138.

363. 49 U.S.C. § 1653(f); 23 U.S.C. § 138.

364. 401 U.S. 402 (1971).

365. *Id.* at 408 n.18.

366. *Id.* at 411. In so finding, the Court explicitly rejected an interpretation of the statute offered by the government that reduced 4(f) to a "balancing" of "factors," a test similar to the Corps' "public interest review." *Id.*

engineering,"<sup>367</sup> it couldn't be done. Similarly, the requirement that there be no "prudent" alternative allowed for no "wide-ranging, balancing of competing interests."<sup>368</sup> Avoiding parks was always going to be more costly and more disruptive. But these "few green havens" were not to be taken unless there were "truly unusual" factors, unless the added costs or disruption "reached extraordinary magnitude" or presented "unique problems."<sup>369</sup>

Stronger interpretation of section 4(f) would be hard to imagine, and its momentum lingers twenty years later in decisions that continue to enjoin highway locations that continue to be approved, section 4(f) notwithstanding, through public recreation lands. A leading illustration is *Stop H-3 Association v. Dole*,<sup>370</sup> involving, once again, approval of a new expressway through a public park and golf course. The Secretary of Transportation had rejected an alternative alignment that spared both sites, on the grounds that the alternative would displace a church, four businesses, and thirty-one homes, increase noise and pollution levels in the surrounding community, and require construction of an additional \$42-million viaduct.<sup>371</sup> Reversing both the Secretary and the district court below, the Ninth Circuit relied on *Overton Park* to find that this cost and disruption were simply not of the "extraordinary magnitude" required.<sup>372</sup> A "hard look," indeed.

Parting from this precedent, however, is a separate line of cases approving highway locations through a range of parks for a range of apparently less compelling reasons. An illustrative decision is *Eagle Foundation v. Dole*,<sup>373</sup> involving a four-lane expressway that, as it crossed the Illinois River, would take a local park and wildlife refuge. The district court below had found the Secretary's rejection of alternative locations to show a "distressing inadequacy" and a "lack of any meaningful, objective, quantified comparison" of either their alleged engineering difficulties or their costs,<sup>374</sup> and had remanded for a fuller explanation. On appeal, however, the Seventh Circuit asserted that the Secretary's decision required "deferential" review by the courts.<sup>375</sup> In language reminiscent of a "public interest" test, section 4(f)'s standard of "prudent" was said to require that the Secretary "[take] into

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367. *Id.*

368. *Id.*

369. *Id.* at 413.

370. 740 F.2d 1442 (9th Cir. 1984), cert. denied, 471 U.S. 1108 (1985).

371. 740 F.2d at 1451 (citation omitted).

372. *Id.*

373. 813 F.2d 798 (7th Cir. 1987).

374. *Wade v. Lewis*, 561 F. Supp. 913, 928 (N.D. Ill. 1983).

375. 813 F.2d at 803-04.

account everything important that matters."<sup>376</sup> In this case, all of the alternatives before the Secretary were more costly, particularly in light of the fact that several million dollars had already been "sunk" into the desired, park-taking location.<sup>377</sup> Although the additional costs ranged somewhere between two and eight million dollars and represented only ten percent of the costs of the river crossing and a tiny fraction of the cost of the total expressway,<sup>378</sup> they were sufficient, in conjunction with other unspecified factors,<sup>379</sup> to uphold the original plan. A deferential look, indeed.

*Eagle Foundation* is but one of many cases that have found reasons of cost, disruption, and safety to override the protections of section 4(f).<sup>380</sup> Several of these cases rely on NEPA as well to interpret the provisions of section 4(f) as a type of fuller-disclosure-of-alternatives statute,<sup>381</sup> a confusion that NEPA neither intends nor supports but that is made seductively easy by the fact that, under Department of Transportation and Federal Highway Administration (FHWA) regulations and in practice, the NEPA and 4(f) reviews are conducted simultaneously and are reflected in a joint document.<sup>382</sup>

Section 4(f) has suffered even more crippling limitations, however, in cases that have in effect limited the scope of its alternatives review. To begin, the federal transportation program is viewed as essentially a state program aided by federal funding, a perspective that has led to the only significant amendment to NEPA since its enactment allowing state highway departments to conduct the NEPA review and prepare EISs, "in conjunction" with federal officials.<sup>383</sup> Section 4(f) has tagged along in this process, and its reviews are likewise prepared by the state and submitted for approval. In short, it is the applicant who conducts the inquiry. Furthermore, transportation planning is a complex, almost byzantine affair, conducted through "RDPs," "TIPs," "E-C" review, and other acronyms in a language of its own that serves, if nothing else, to insulate it from public and judicial review.<sup>384</sup> Fatally, this planning also takes place, although with

376. *Id.* at 805

377. *Id.* at 808.

378. *Id.*

379. *Id.* at 805 ("A cumulation of small problems may add up to a sufficient reason to use § 4(f) lands.")

380. See also *Ringsred v. Dole*, 828 F.2d 1300 (8th Cir. 1987); *Arizona Past & Future Found. v. Lewis*, 722 F.2d 1423 (9th Cir. 1983).

381. *Adler v. Lewis*, 675 F.2d 1085 (9th Cir. 1982); *Farmland Preservation Ass'n v. Goldschmidt*, 611 F.2d 233 (8th Cir. 1979); *Maryland Wildlife Fed'n v. Lewis*, 560 F. Supp. 466 (D. Md. 1983), *aff'd*, 747 F.2d 229 (4th Cir. 1984).

382. *Environmental Impact and Related Procedures*, 25 C.F.R. §§ 771.101-.137 (1988).

383. 42 U.S.C. § 4332(2)(D) (Supp. IV 1987).

384. Peterson & Kennan, *An Analysis of Administration of the Federal Aid Highway Program*, 2

significant federal aid, unrestrained by federal environmental laws. Transportation needs are defined, modes are determined, corridors are drawn, and projects are listed and prioritized within these corridors before the first section 4(f) statement is even considered.<sup>385</sup> Only at the point of approval of the specific location of a particular, determined-upon highway segment are an EIS and 4(f) statement prepared.<sup>386</sup>

Courts have steadfastly refused to apply federal requirements to these earlier and largely determinative decisions on grounds that they are not yet "federal."<sup>387</sup> One court, disapproving an FHWA practice of actually buying highway rights-of-way before highway locations had been approved, opined that, while the practice was unlawful, invalidating it served little purpose since the earlier, nonfederal planning all but decided the issue of location.<sup>388</sup> These location issues are further predetermined by the segmentation of highways into construction projects that, once begun, necessarily foreclose decisions on the remaining links in the chain.<sup>389</sup> Although the practice of building to both sides of a park and then crying "no alternative" has been disapproved by at least one court,<sup>390</sup> generally courts have been willing to approve segmentation of federal-aid highways between any two "logical termini,"<sup>391</sup> which in practice may mean little more than between 35th Street and Main.

All of these factors—the review of the project in small segments, the late timing, and the conduct of the review by the highway applicant itself—serve to defeat the purposes of section 4(f) as soundly as do court interpretations that allow, once a location decision is finally reviewed on a particular segment, park resources to be taken on those same grounds of cost and disruption that gave rise to the need for a protective statute in the first place. One attorney and student of section 4(f) has introduced his research with following summary:

It is possible that there has [sic] been better than three thousand

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Env'tl. L. Rep. (Env'tl. L. Inst.) 50,001 (1972); see *Atlanta Coalition on the Transp. Crisis, Inc. v. Atlanta Regional Comm'n*, 599 F.2d 1333 (5th Cir. 1979).

385. See *Atlanta Coalition*, 599 F.2d at 1333.

386. See *Environmental Impact and Related Procedures*, *supra* note 382.

387. E.g., *Atlanta Coalition*, 599 F.2d at 1333; *Save South Kona Coalition v. Dole*, 575 F. Supp. 277 (D. Haw. 1983).

388. *National Wildlife Fed'n v. Snow*, 561 F.2d 227 (D.C. Cir. 1976).

389. E.g., the highway in *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402 (1971); the river crossing in *Eagle Foundation v. Dole*, 813 F.2d 798 (7th Cir. 1987). See also *supra* notes 364-79 and accompanying text.

390. *San Antonio Conservation Soc'y v. Texas Highway Dep't*, 446 F.2d 1013 (5th Cir. 1971), *cert. denied*, 406 U.S. 933 (1972).

391. *Lange v. Brinegar*, 625 F.2d 812 (9th Cir. 1980).

(3,000) Section 4(f) statements prepared over the last twenty (20) years. Of that sum, the number of Section 4(f) statements prepared for park/recreation area takings was approximately eighteen hundred (1,800) which represents about sixty percent (60%) of all Section 4(f) takings during the same time period. Of the eighteen hundred (1,800) or so possible park/recreation area takings, I was only able to identify about fifty (50) reported district and appellate court decisions which addressed those actions. Of the fifty (50) or so reported cases, the United States Department of Transportation was faced with remand on only ten (10) or so occasions, and finally, of the ten (10) or so remands, it is very possible that only one (1) park was ever totally saved. Welcome to Overton Park.<sup>392</sup>

Section 4(f), like section 404, attempts to protect a particular kind of resource through a determination that it not be taken except as a last resort. The extent to which section 4(f) has succeeded in deflecting highways away from parks cannot be documented, although there is considerable evidence that, despite the strongest language Congress could devise and the strongest reinforcement the Supreme Court could provide, the 4(f) mechanism fails to do so. At bottom, the failure of 4(f) is a failure of its scope. For the most part, these are highway decisions made by highway planners. The project, or one like it, is a given.<sup>393</sup> The lesson of section 4(f) is that, unless the scope of consideration is expanded by some other mechanism, an alternatives test will not do the job.

### C. Section 7 of the Endangered Species Act

The Endangered Species Act addresses a slender but critical band on the environmental spectrum—life forms threatened with extinction. It provides a range of remedies including strict regulation of international trade,<sup>394</sup> accelerated research and recovery programs,<sup>395</sup> and support for state, federal, and foreign agencies working towards these same goals.<sup>396</sup> The most difficult and controversial feature of the Act, however, has been section 7, which, as enacted in 1973, imposed a mandate on all federal agencies to “insure” that their actions do not jeopardize the existence of a species or destroy habitat critical to its

392. C. Olsen, *Overton Park Revisited 2* (1987) (unpublished manuscript on file with the author).

393. Although unpublished FHWA directives do require consideration of a “no build” alternative, this alternative is obviously the very antithesis of the application. To any highway applicant, and even to some reviewing courts, a “no build” alternative is out of the question. *Ringsred v. Dole*, 828 F.2d 1300, 1304 (8th Cir. 1987); *Stop H-3 Ass'n v. Dole*, 740 F.2d 1442, 1466 (9th Cir. 1984) (Wallace, J., concurring in part).

394. 16 U.S.C. § 1537(b) (1982).

395. *Id.* § 1533(f).

396. *Id.* § 1535.

survival.<sup>397</sup> This mandate was soon put to the test in *Tennessee Valley Authority v. Hill*,<sup>398</sup> challenging the completion of the \$90-million Tellico Dam because of its effects on an obscure freshwater perch, the snail darter. Although the dam was virtually constructed,<sup>399</sup> the Supreme Court enjoined its completion, citing the strength of the mandate itself: "One would be hard pressed to find a statutory provision where terms were any plainer."<sup>400</sup> The majority held that "[t]his language admits of no exception."<sup>401</sup> The Tellico case provoked a storm of reaction and, in 1978, Congress amended the Act to provide an exception of narrow proportions.<sup>402</sup> The exception is based on alternatives—taken to a new dimension.

As presently written, the Endangered Species Act operates in two stages: first, a consultation process,<sup>403</sup> which leads to a finding whether a project will jeopardize a species; second, the exemption process,<sup>404</sup> leading to a decision whether, jeopardy notwithstanding, the project should go forward. In each process the roles of the permit applicant and federal action agency are minimized, the question of alternatives is determinative. All federal agencies are required to notify the Secretary of Interior (or Commerce, for marine species) of any action potentially affecting a threatened or endangered species and to assess whether the species is in fact present in the project area.<sup>405</sup> The Secretary then renders his opinion on the effect of the action on the species.<sup>406</sup> If jeopardy is found, the Secretary "suggests" those "reasonable and prudent alternatives" that "can be taken by the agency or applicant" to avoid the threat.<sup>407</sup> At this point, then, the alternatives inquiry remains restricted by what the agency or applicant can do. During this consultation phase, however, the agency/applicant may make no "irreversible or irretrievable commitment of resources . . . which has the effect of foreclosing the formulation or implementation" of alternatives.<sup>408</sup> All options are to be left open. If they are not left open, the exemption process is unavailable.

The jeopardy finding allows an agency, applicant, or state gover-

397. *Id.* § 1536.

398. 437 U.S. 153 (1978).

399. *Id.* at 162.

400. *Id.* at 173.

401. *Id.*

402. 16 U.S.C. § 1536(h).

403. *Id.* § 1536(a)(2).

404. 50 C.F.R. §§ 450.01-.05 (1988).

405. 16 U.S.C. § 1536(a)(2).

406. This opinion is called the biological opinion. *Id.* § 1536(c)(1).

407. *Id.* § 1536 (b)(3)(A).

408. *Id.* § 1536(d).

nor to apply for an exemption.<sup>409</sup> As a threshold matter, the Secretary is to assure that the applicant has in fact explored alternatives in good faith, and refrained from actions that could foreclose them.<sup>410</sup> The Secretary must then hold a formal hearing<sup>411</sup> and make a report of a new order of magnitude, including the "nature and extent of the benefits . . . of alternative courses of action consistent with conserving the species."<sup>412</sup> The implementing regulations define "alternative courses of action" as including both no action and alternatives "extending beyond original project objectives and acting agency jurisdiction."<sup>413</sup> The term "benefits" includes intangible and tangible benefits—"economic, environmental and cultural."<sup>414</sup> The Secretary's report, enlarged by these new considerations, is presented to an exemption committee, which may grant an exemption only if five or more of its seven members find, *inter alia*, that: (1) there are no reasonable and prudent alternatives; (2) the benefits of the proposed action "clearly outweigh" the benefits of alternative courses of action that would conserve the species; and (3) the action is of regional or national significance.<sup>415</sup>

Each of these factors merits a pause. The first, "reasonable and prudent alternatives," has been seen in slightly different, section 4(f) dress.<sup>416</sup> Unlike section 4(f), however, the requirement does not stand alone. The second, the "benefits" analysis, is wholly new and remarkable. To begin, it is not the typical "balancing analysis" in which benefits are required to exceed costs,<sup>417</sup> a threshold that creative agencies such as the Corps of Engineers have had little difficulty surmounting over the years.<sup>418</sup> Rather, it compares benefits of the proposed action to the benefits of alternative courses of action, even though these alternatives are as unappetizing to a construction agency as energy or water conservation, and although the benefits of these alternatives are largely environmental or cultural, i.e., not economic. If these benefits, that extend beyond project objectives and even the applicant or agency's authority, are not "clearly outweighed," the inquiry is over.

409. 50 C.F.R. § 451.02(c) (1988).

410. *Id.* § 452.03(a)(3).

411. *Id.* § 452.05.

412. 50 Fed. Reg. 8122, 8123 (1985).

413. 50 C.F.R. § 450.01 (1988).

414. *Id.*

415. *Id.* § 453.03.

416. See *supra* text accompanying note 364.

417. See *Calvert Cliffs Coordinating Comm. v. United States Atomic Energy Comm'n.*, 449 F.2d 1109 (D.C. Cir. 1971); see also 33 U.S.C. § 701(a) (1982) (Corps of Engineers benefit to cost standard).

418. E.g., *South La. Envtl. Council v. Rush*, 12 Env't Rep. Cas. (BNA) 1849 (E.D. La. 1978), *aff'd sub nom.* *South La. Envtl. Council v. Sands*, 629 F.2d 1005 (5th Cir. 1980).

The exemption is denied. The third factor, "regional or national significance,"<sup>419</sup> has yet to be tested, but it would clearly exclude the type of controversial permitting for shopping malls, soybeans, and subdivisions currently witnessed under section 404 of the Clean Water Act.

That these new decision factors add bite to the Endangered Species Act is demonstrated by the fate of the only two projects to apply for and reach a committee decision, the Tellico Dam and the Greyrocks Dam, a Rural Electrification Association project in Wyoming.<sup>420</sup> Both dams had failed in court under the 1973 Act.<sup>421</sup> Then, when amending the law to add new consultation language and the exemption process, Congress directed that the committee it was creating take up, at once, the Tellico and Greyrocks projects and, solely on the basis of reasonable and prudent alternatives and the comparative benefits of alternatives, determine their eligibility for exemption.<sup>422</sup> By unanimous votes of the committee, Tellico failed again; Greyrocks was granted the exemption only with conditions ensuring the survival of the whooping crane.<sup>423</sup>

The bite of these provisions is also demonstrated by the statistical record of the consultation process. Between 1979 and 1987 there were 4415 formal consultations under the Act.<sup>424</sup> Those consultations led to 354 biological opinions finding jeopardy.<sup>425</sup> Of these 354 cases, only two, Tellico and Greyrocks, have even chosen to run the gauntlet,<sup>426</sup> with the results just noted. These statistics by no means prove that the Endangered Species Act is alive and well. There is also reason to believe that some controversies are avoided simply by finding "no jeopardy" where jeopardy, in fact, is likely.<sup>427</sup> There is also reason to believe that, in close cases, a finding of "insufficient information" may hedge an opinion that would otherwise block a mineral lease or a favored public works project.<sup>428</sup> There are cases demonstrating that substantial commitments of resources may be allowed to foreclose al-

419. 50 C.F.R. § 453.03 (1988).

420. *Nebraska v. Rural Electrification Administration*, 12 Env't Rep. Cas. (BNA) 1156 (D. Neb. 1978).

421. *Id.*; *Tennessee Valley Auth. v. Hill*, 437 U.S. 153 (1978).

422. 16 U.S.C. § 1539(i) (1982).

423. See 9 Env't Rep. (BNA) 1776 (1979).

424. Memorandum from Nancy Sweeney, Office of Policy Analysis, U.S. Dep't of Interior, to author (Apr. 14, 1989).

425. *Id.*

426. *Id.*

427. See Day, *Agency Supported on Two Forks Ruling*, *Rocky Mtn. News*, June 8, 1988, at 14.

428. E.g., *North Slope Borough v. Andrus*, 486 F. Supp. 332 (D.D.C.), *rev'd*, 642 F.2d 589 (D.C. Cir 1980). See also Houck, *The "Institutionalization of Caution" Under § 7 of the Endangered Species Act: What Do You Do When You Don't Know?* 12 Env'tl. L. Rep. (Env'tl. L. Inst.) 15,001, 15,003-06 (1982).

ternatives,<sup>429</sup> and more evidence that the U.S. Fish and Wildlife Service has been inexcusably slow in listing threatened and endangered species<sup>430</sup> and in determining their critical habitat,<sup>431</sup> all of which weaken the Act's protections. Nor do these statistics mean that a new, expanded alternatives test has single-handedly won the day. The very process of an exemption is a daunting one, involving a full-blown administrative hearing and controlled largely by the Secretary who, inevitably, will be in opposition. And behind all of the process is the strong appeal of endangered species themselves,<sup>432</sup> an appeal that carries its own deterrent.

These caveats noted, section 7 of the Endangered Species Act remains one of the most successful mandates in environmental law, and it has relied upon the use of alternatives. The reliance is well placed because eventually, under section 7, alternatives rise to a sufficiently broad plain to be meaningful and because their presence, once found, is not a presumption, but is dispositive.

#### V. THERE MUST BE A BETTER WAY

The alternatives test is as necessary to natural resources protection as it is difficult to formulate and apply. When compared to the uncertainties of reviews based on environmental impacts, and to the Corps' virtually standardless "public interest review," alternatives emerge, as they have in those laws that protect parks and endangered species, and indeed as they have in the law of pollution and hazardous waste control,<sup>433</sup> as the decision-making key. As they are applied within the section 404 process, however, alternatives carry more weight than they can bear. At the rate of more than ten thousand applications a year, virtually every one in which the EPA guidelines are seriously applied is a potential battleground over the scope of alternatives, their availability, their practicability, the role of economics, the role of private ownership, and the definition of the project itself.

These are grinding, expensive, and frustrating battles for all concerned. It may be that the very prospect of such a battle deters many applicants, and shifts their proposals to drier and less-contested

429. *North Slope Borough*, 642 F.2d at 610-11.

430. See 1982 Amendments to the Endangered Species Act, Pub. L. No. 97-304, § 2, 96 Stat. 1413 (1982). See also Harris, *Tortoise, Salmon, Birds Fail to Win Law's Protection*, *Sacramento Bee*, Feb. 4, 1989, at B5, col.1.

431. *Harris*, *supra* note 430, at B5, cols.2-3.

432. The appeal reaches even the most conservative elements in American society. In an article entitled "species doubly endangered," the columnist James J. Kilpatrick makes the case for protecting the "mission blue butterfly and the dwarf bear poppy," and all endangered species, "because they are there." Kilpatrick, *Species Doubly Endangered*, *The Times Picayune*, Apr. 23, 1982, at 20B.

433. See *supra* note 316.

ground. It is irrefutable, however, as a matter of statistics, of anecdote, of the examined permit decisions, and of case law, that more than ten thousand permits to destroy wetlands are continuing to issue each year, some partially mitigated, some not. Each one chews off its piece of the ecosystem and is undeflected, in the end, by the availability of alternatives. The need here is to strengthen the role of alternatives and to narrow their field of play.

#### A. Transferring the Permit Decision

Anyone examining the schizophrenia of the section 404 program is tempted to recommend that the program should be transferred, permitting authority and all, away from the Corps of Engineers. From an historic standpoint, it is hard to conclude that the agency has acted in even a good faith effort to implement the law. The Corps' reliance on the desires of the applicant to define a project's purpose and need has all but eliminated the alternatives requirement. The Corps' attitude has been that if EPA wished to veto a project under 404(c) it was free to do so; short of that, the permits issue, *en masse*.<sup>434</sup>

The advantages of transferring jurisdiction in reducing disagreements and in consistency are obvious. What is not so obvious is whether EPA, were it named the permitting agency, would have the field resources to administer the program or the political will to make significantly different decisions on permits, once it had the responsibility not simply to comment but rather to decide.<sup>435</sup> In this regard, EPA's record of decision under section 404(c) is not impressive.<sup>436</sup> What should be obvious is that delegating the permit program to the states would raise even larger questions of political will, in those very

434. See *supra* text accompanying notes 72-124. See also the comments of the incoming district engineer of the New Orleans District, U.S. Army Corps of Engineers: "The Corps is not charged to preserve wetlands. The Corps' mandate is more a conservation mandate involving wise use of existing resources." O'Byrne, *New Leader Takes Helm of N.O. Corps of Engineers*, *The Times Picayune*, Jan. 19, 1989, at B5, col. 3. The article continued: "In addition to the Corps' limitations, District Engineer Gorski cited the increasingly prominent role of the Environmental Protection Agency and the U.S. Fish and Wildlife Service in reviewing, and occasionally rejecting, Corps proposals for activities in coastal wetlands." *Id.* See generally Blumm & Zaleha, *Federal Wetlands Protection Under the Clean Water Act: Intergovernmental Tension, Regulatory Ambivalence, and a Call For Reform*, 60 U. COLO. L. REV. 695 (1989).

435. *E.g.*, *Roosevelt Campobello Intl'l Park Comm'n v. United States Envtl. Protection Agency*, 684 F.2d 1041, 1046-47 (5th Cir. 1982), in which EPA, under its section 402 permit program, justified its narrow look at alternatives on grounds that a "less searching analysis" is warranted for a privately sponsored project, viewing its limited role as essentially "to determine whether the proposed site is environmentally acceptable."

436. Of an estimated 160,000 permits issued by the Corps of Engineers under the section 404 program from its inception to January 1989, EPA exercised its veto eight times. See *supra* text accompanying note 127.

states where wetlands loss is most critical.<sup>437</sup> This delegation contradicts the very reasons for a federal program.<sup>438</sup> Instead, what may be emerging, at long last, is a Corps of Engineers willing and able to take the 404(b)(1) guidelines at their word.<sup>439</sup> If so, it is the best of both worlds.

Whether or not Congress resolves to transfer the permit functions, however, the central problem of this study is not thereby resolved. Someone will have to make a permit decision, and that decision will begin, and often end, with the question of alternatives.

### B. Legislating the Guidelines

To some, the difficulties with the section 404(b)(1) guidelines could be resolved, or mitigated, by their specific enactment as an amendment to section 404. Undeniably, the guidelines would receive closer attention by the Corps and stronger interpretation by the courts were they the language of Congress and not simply EPA. On the other hand, the guidelines, as regulations, already carry the force of law and the Corps has, as noted, agreed in a consent decree and in its regulations to abide by them.<sup>440</sup> What also makes this remedy seem less promising is the experience of section 4(f). Even a legislative mandate as specific as that one, with a decision in support as unyielding as *Citizens to Preserve Overton Park v. Volpe*,<sup>441</sup> can be defeated by narrowing the scope of its application. Further, as just noted, under statute or under regulation, someone will have to determine what the alternatives requirement means. A legislative mandate, like a transfer of authority to EPA, would be helpful. But it does not solve the problem.

### C. Activating the Veto

Another prescription for an obviously flagging section 404 program would be the more widespread exercise of section 404(c). As

437. Incredibly, the Wetlands Policy Forum has recommended transfer of permit authority to the states. CONSERVATION FOUNDATION, PROTECTING AMERICA'S WETLANDS: AN ACTION AGENDA 5-6, 21-23 (1983) [hereinafter WETLANDS POLICY FORUM REPORT]. Fortunately, if the states' track record on accepting delegated 404 programs is any guide, this recommendation may fail for want of a second. To date, only one state, Michigan, has applied for and received a delegated program. *Id.* The prospect of delegation in, say, Louisiana, is daunting.

438. Given the transboundary impacts of wetlands losses on migratory waterfowl and fisheries, a national program of wetlands protection seems even more imperative than, for example, the regulation of water pollution or hazardous wastes.

439. See *supra* text accompanying notes 160-93.

440. *National Wildlife Fed'n v. Marsh*, 14 *Env't. L. Rep. (Env't. L. Inst.)* 20,262, 20,263 (D.C. Cir. 1984).

441. 401 U.S. 402 (1971).

noted earlier, however, this is unfortunately a prescription of limited prospects. The section 404(c) process sets off an administrative chain of appeals, defenses, adjudicatory hearings, and judicial review similar in some respects to the cancellation of a pesticide, a process so daunting it is seldom launched.<sup>442</sup> EPA simply does not have the resources to exercise its veto the several hundred, perhaps several thousand, times a year in which it is warranted. Moreover, the more heavily EPA becomes involved in these exercises, the more likely it is that the Corps will simply abandon all responsibility for wetlands protection and leave the job to EPA.

In short, as with the two recommendations just discussed, more EPA action on the 404(c) front would help. In line with the earlier two recommendations, however, the exercise of the veto will continue to beg the question, even more acutely, of what alternatives mean.

#### *D. The Bottom Line: Strengthening the Water Dependency Test*

The alternatives test is really two tests, one establishing a presumption against wetlands dredge and fill generally, and a second, "double presumption" against activities that are not water dependent. While these tests appear complementary and distinct, they work against each other in subtle ways. An activity that *is* water dependent receives a presumption of permission, the nonwater dependents being obviously less deserving. The actual analysis for the nonwater dependents, however, may require no greater showing from an applicant than that a number of alternatives were examined and found unsuitable, the same analysis one would expect for a water dependent activity, and not terribly different from that required under NEPA. While statistics are not available comparing the number of water dependent and nonwater dependent permit applications rejected, much less the reasons for their rejection, the data do show that very few permits are rejected at all, and the Corps has at one point stated rather flatly its view that to reject solely on the basis of suitable alternatives would be an "unreasonable stance."<sup>443</sup> When this evidence is coupled with the decisions to permit such thoroughly *nonwater* dependent proposals as riparian subdivisions, the Hackensack Meadowlands complex in *National Audubon Society v. Hartz Mountain Development Corp.*,<sup>444</sup> and the soybeans of *Louisiana Wildlife Federation v. York*,<sup>445</sup> it seems obvious that even the "double presumption" is not difficult to circum-

442. 40 C.F.R. §§ 231-233 (1988).

443. See *supra* text accompanying note 121.

444. 14 *Envil. L. Rep.* (*Envil. L. Inst.*) 20,724 (D.N.J. 1983).

445. 761 F.2d 1044 (5th Cir. 1985).

vent when section 404 gets down to cases. At present the water dependency test adds a new layer of review and uncertainty. It does not resolve, however, nor does it protect.<sup>446</sup>

If wetlands protection is a national priority, a premise this study accepts as given, there is no apparent reason to permit activities in wetlands that are not dependent on wetlands for their accomplishment. The most obvious substantive recommendation for the section 404 program, then, is simply to make the water dependency test dispositive. Unless this type of activity needs to be located in waters of the United States, it will not be.

This recommendation goes a long way to clarify and simplify the program. To be sure, disputes will continue over which activities are water dependent. EPA can anticipate the majority of these disputes in a rulemaking designating categories of uses that are water dependent, much as it is currently engaged in designating categories of water dependent vegetation for purposes of establishing section 404 jurisdiction. The most obvious categories are ports, harbors, and activities related to shipping. Only if this dependency is established should the section 404 process continue, by examining alternative locations and methods and environmental impacts, to reach its conclusion. All other activities are not water dependent and categorically excluded.

The exclusion proposed would be made subject to two narrow exceptions. The first, already contained in the section 404(b)(1) guidelines, is that of a wetland location less harmful than upland alternatives, a circumstance so rare that it did not surface in the research conducted for this study. The second exception would parallel variance provisions in the section 402 program for discharges demonstrating "fundamentally different factors," and would require in this case the applicant to show that its activity, while not in a declared water-dependent category, is in fact water dependent based on factors *other* than property ownership or the applicant's own economic advantage. In this fashion, the rulemaking need not, and could not, identify all *nonwater* dependent activities excluded. It would, however, give fair warning to all that convenience, preference, or economic advantage by location in waters of the United States is, by rule, insufficient and that, from now on, shopping centers, commercial complexes, dryland farming, and Riverside Bayview Homes,<sup>447</sup> among others, have no future here.

446. Indeed, as presently formulated, the concept of water dependency is simply a reverse way of saying that there is no feasible alternative to a wetlands location. The point is that, however stated, that finding should be dispositive.

447. *United States v. Riverside Bayview Homes*, 474 U.S. 121 (1985). The name says it all.

At this point one important alternative inquiry remains but it arises in a far more manageable fashion. Making the water dependency test dispositive, subject to limited exceptions not bound to the particular circumstances of an applicant, will give rise to claims of an unconstitutional taking of property without compensation, claims already arising from the existing program.<sup>448</sup> To the extent that these claims are based on expectations of profit from waterfront condominiums or increased agricultural yield, they should succumb to the normal standards of the fifth amendment.<sup>449</sup> It may be, however, that alternative, water-dependent uses are so minimal as to give rise to a deprivation of *all* use, and a taking. This inquiry turns, of course, on alternative *uses* of the property (e.g., sustained-yield forestry), as opposed to alternative locations for the proposed use (e.g., an upland site for soybeans), which is exactly the inquiry rejected in *Louisiana Wildlife Federation v. York*<sup>450</sup> and avoided in *Bersani v. United States Environmental Protection Agency*.<sup>451</sup> A permitting program cannot be expected to probe the alternative uses of more than ten thousand pieces of property per year, nor would it be expected to make a reasoned judgment based on what is discovered. Probing only the questions of alternative locations and methods for proposed activities—the current scope of the inquiry—is an all but unmanageable job. Reducing section 404 to only the water dependent narrows both its universe and the job within it. There are fewer permits to review, and the question of alternative uses takes an appropriate, limited place in the decision, as an applicant's challenge that the limitation to water dependent uses deprives it of all reasonable use of the property. The burden has finally shifted. So modified, section 404 may begin to fulfill the promise that has proven to be so elusive to date, reducing wetlands losses to those genuinely necessary.

448. See *Deltona Corp. v. United States*, 16 Env't Rep. Cas. (BNA) 1482 (Ct. Cl. 1981); *Florida Rock Indus. v. United States*, 791 F.2d 893 (Fed. Cir. 1986); see also *Riverside Bayview Homes*, 474 U.S. at 128-29 n.6.

449. U.S. CONST. amend. V. The most recent Supreme Court decision on the takings question, *Keystone Bituminous Coal Ass'n v. DeBenedictis*, 107 S. Ct. 1232 (1987), reaffirms the principle that regulatory restrictions will not require compensation so long as an economic use remains available to the owner. Accord *Pennsylvania Cent. Transp. Co. v. New York City*, 438 U.S. 104 (1978); *Pennsylvania Coal Co. v. Mayan*, 260 U.S. 393 (1922). For a pessimistic voice on the need to compensate for section 404 permit denials, see Klock & Cook, *The Condemning of America: Regulatory "Takings" and the Purchase by the United States of America's Wetlands*, 18 SETON HALL L. REV. 330 (1985). While this latter view may well be adopted by the Supreme Court, it is certainly not the law of the lower federal courts that have considered the question. *Deltona*, 16 Env't Rep. Cas. (BNA) at 1482.

450. 761 F.2d 1044 (5th Cir. 1985).

451. 674 F. Supp. 405 (N.D.N.Y. 1987), *aff'd sub nom. Robichaud v. United States Envtl. Protection Agency*, 850 F.2d 36 (2d Cir. 1988), *cert. denied*, 109 S. Ct. 1556 (1989).

*E. Redefining the Project . . .*

An alternatives test, and indeed a water dependency test, begins and often ends with the definition of the project. So it is that an applicant for a section 404 permit will describe its project in the narrowest terms possible, foreclosing the options. And so it is that Corps directives to take an applicant's statement of purpose at face value have all but eliminated, as Corps personnel acknowledged, alternatives as a factor, much less the controlling factor, in the decision. The starting point, then, is that under any meaningful implementation of section 404 the applicant's stated purpose must be accepted for what it is, and enlarged.

The method here is one of the most perplexing questions in natural resources law, cutting across NEPA, section 4(f), section 7, and several organic acts for the management of public lands. A purpose of providing one million days of scenic viewing in Yosemite Valley may have no alternative other than a four-lane highway. In other words, common to all of these statutes is the need to view a proposal in larger terms than the applicant's, while avoiding the conclusion that nothing in life may be accomplished as proposed because the applicant can always, alternatively, go open a store in Des Moines. The EPA guidelines attempt to address this question by stating that the proposed activity should be viewed broadly.<sup>452</sup> Recognizing the relationship between a purpose and its alternatives, reviewing courts have routinely approved expanded views of section 404 applications<sup>453</sup> and on occasion have required a broader view than that taken by the Corps.<sup>454</sup> Even the *National Wildlife Federation v. York*<sup>455</sup> court was careful to say that the applicant's purpose was required to be "considered." It did not say, nor could it say, that this purpose is controlling.

Unfortunately, it is not enough to say that the activity should be viewed "broadly." Section 404 is up against human nature, and human nature dictates that when an applicant states that it wants to build a waterfront condominium, to dam a river, or to dredge clam shells, then that is what is under review. For a federal employee to go beyond and ask the "why" question requires no small initiative; moreover, in a program pressed for manpower, it takes time. Too often, as a simple matter of statistics, the question does not get asked. For the system to operate any differently, it needs a brighter line.

452. 40 C.F.R. § 230 (1980).

453. *E.g.*, *Hough v. Marsh*, 557 F. Supp. 74 (D. Mass. 1982). See *supra* text accompanying notes 218-25.

454. *E.g.*, *North Carolina v. Hudson*, 665 F. Supp. 428 (E.D.N.C. 1987). See *supra* text accompanying notes 233-38.

455. *Louisiana Wildlife Fed'n v. York*, 761 F.2d 1044 (5th Cir. 1985).

A search for this line could begin with any of the cases or permit decisions described earlier in this study. The three examples that follow are taken from controversies current at the time of this writing:

1. The Rangia clam is dredged in great volume, twenty-four hours a day, from the water bottoms of Louisiana's most productive estuaries.<sup>456</sup> It is used as fill material, for levees, driveways and secondary roads. If the purpose of the activity is dredging for the Rangia clam, the alternatives inquiry has just ended; the clam is not found anywhere else in the world. If, on the other hand, the purpose is to provide construction materials for roads and levees, a range of alternatives—the use of crushed limestone, for one—comes to mind.

2. The Two Forks dam is proposed for a tributary of Colorado's Platte River, to supply future water needs of the Denver metropolitan area.<sup>457</sup> In the applicant's view the project is a dam, and Two Forks is the best place to build one.<sup>458</sup> In the view of at least one court in a similar case, however the question is neither a dam nor new water supply but, rather, meeting water needs,<sup>459</sup> a statement of purpose that opens a range of conservation and partial supply options.

3. The Plantation Landing resort complex, again.<sup>460</sup> To the applicant, the purpose is dispositive; there may be no other locations for a condominium-on-the-water within two hundred miles. If the purpose is viewed as a leisure village, however, even one within a short walk to water, alternatives abound.

In each of these three cases, it seems indisputable that, for section 404 to operate at all, the larger view must be taken. This view does not require additional study, in the case of the Rangia clam dredging, of transportation alternatives across southern Louisiana. Nor does it call for studies on relocating the future citizenry of Denver, or on air fares to transport Louisiana's leisure class to Bermuda. The "rule of reason" will operate here, as it does under NEPA,<sup>461</sup> without need for reinforcement beyond the ordinary pressures of time and money, to hold the review to the germane. What is needed are principles that *elevate* the review to the germane. The applicant dredges clam shells, it does not supply limestone. The applicant brokers water; it does not

456. See *Louisiana v. Lee*, 758 F.2d 1081 (5th Cir. 1985).

457. See Statement by Governor Roy Romer to the People of Colorado Concerning Two Forks and Water Development in Metropolitan Denver (June 10, 1988) (unpublished report on file with the author).

458. See Two Forks Dam and Reservoir Project, Application No. CO 2SB OXT 2 008308, Applicant's "Practicable Alternatives Analysis" 11 (Dec. 7, 1987) (unpublished, on file with the author).

459. *North Carolina v. Hudson*, 665 F. Supp. 428 (E.D.N.C. 1987).

460. See DRAFT STATEMENT—PLANTATION LANDING RESORT, *supra* note 100.

461. See *Vermont Yankee Nuclear Power Co. v. Natural Resources Defense Council*, 435 U.S. 519 (1978); *Natural Resources Defense Council v. Morton*, 458 F.2d 827 (D.C. Cir. 1972).

broker water meters. The applicant will not go to the next level of inquiry on its own. That level is the minimum required for the alternatives inquiry.

Reviewing these examples, several principles emerge as relevant. First, however an applicant styles its activity the agency should: (1) identify the larger categories of activity in which it falls, and (2) select the broadest category relevant to the application. This is a two-step procedure, and the first step is critical because it requires the federal employee to ask the "why" question and to supply several answers. The second step is, inevitably, more flexible. Taking Two Forks as an example, the first question may produce answers of, consecutively, "to build a dam," "to supply water," and "to meet future water needs." For a public entity such as the Denver Water Board, meeting needs is the appropriate mission. For Plantation Landing, Inc., on the other hand, a leisure complex away from the water would be a logical redefinition; not so, however, a bowling alley in Baton Rouge.

As an aid to the second question—how broadly to select—the agency should identify the public purpose within a proposal and where it exists, should fix its review of alternatives accordingly.<sup>462</sup> The applicant's desire may be to dredge clam shells, but the public purpose is construction fill material. The Denver Water Board may have an interest in maintaining its economic and political power over regional water supply through a single, large reservoir, but the public purpose is water. For section 404 purposes, the public purpose, where identifiable, is the project.

Concededly, there are any number of private boat docks, bulkheads, and similar projects that have no public purpose at all. By and large, however, most of these projects escape the section 404 process through general permits. Where they do not escape, and where they do not claim a broader mission, they present the project definition with its smallest and hardest cases. These applicants are, almost by definition, not commercial; commercial dredge and fill presumes a market, which in turn presumes a public. For this group of applicants, the project will be what they say it is—my dock, my pier, my camp on the bayou—and they define the playing field. They may still fail a narrowly drawn wetland dependency test. Where they survive, at the

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462. This recommendation draws from the Corps' previous regulations under NEPA, *see supra* note 80. Following *Louisiana Wildlife Federation v. York*, 761 F.2d 1044 (5th Cir. 1985), and misconstruing its holding, the Corps has directed its section 404 offices not to consider public purposes but, rather, those of the applicant. *See* Hatch Memorandum, *supra* note 69 (previous Corps guidance requiring "consideration of proposed need from the public's viewpoint" has been "reconsidered and is hereby rescinded. Our position is that *LWF v. York* requires that alternatives be practicable to the applicant and that the purpose and need for the project be the applicant's purpose and need.").

least they present less of a challenge to the remaining application of the section 404 (b)(1) guidelines. As the cases themselves show, it is just plain easier to deny a permit for a wetlands residence than for the Hackensack Meadowlands complex.

*F. . . . and the Alternatives*

The recommendations just made serve to make the examination of alternatives possible, by defining the proposed activity so that alternatives exist, and to make it manageable, by eliminating a host of activities that do not need to be located in water. This done, familiar questions remain.

The first of these questions is the appropriate *geographic* scope of alternatives. A marina proposed on Grand Isle, Louisiana, could always relocate in Seattle, a choice on no one's horizon. If the activity, as a marina, is water dependent, then the range of locations will be restricted to other waters and the choice may boil down to the least harmful location. The appropriate universe of these locations, however, is neither Grand Isle nor Seattle, but a circle larger than Grand Isle defined by the outer limits of the public served. For example, leisure lovers from the city of New Orleans, some seventy miles distant, will impose a larger circle than would a small marina to serve local commercial fishermen. If, by contrast, the proposal is a new port to ship Appalachian coal to Europe, then the range of alternative locations should include, and indeed has included, several Atlantic coastal states with potential harbors and access from the coalfields.<sup>463</sup> While the concept is flexible, then, its principle is constant: the largest circle of locations to serve the particular public need.

The related question is alternative *methods*, perhaps the most underused aspect of the section 404(b)(1) guidelines. At present, design options in 404 permits are incorporated essentially as mitigating features, such as the placement of gaps in spoilbanks along a dredged canal and retention dikes to hold contaminated spoil. Again granting that the activities now under consideration are water dependent, options still exist to avoid dredge and fill, albeit more costly ones. No one has seriously explored the use of hovercraft as a substitute for access canals to oil and gas exploration sites; yet these canals constitute the largest, permitted threat to Louisiana's coastal marshes.<sup>464</sup> Less innovative, perhaps, would be a requirement that any commercial or residential structure in waters of the United States be elevated on

463. *National Wildlife Fed'n v. Marsh*, 14 *Env'tl. L. Rep.* (Env'tl. L. Inst.) 20,262, 20,264 (D.C. Cir. 1984).

464. See Houck, *supra* note 111, at 107-10.

pilings, and that transportation corridors be elevated to protect sheet and subsurface flow. Each of these requirements could countenance an exception on proof that, in a given case, they were infeasible. What the present program lacks is an identification of "best available technology" that creates the presumption against which exceptions, where necessary in individual cases, can be made. What is needed in the technology area, as with water dependency categories, is the weight of a rule. Left to case-by-case decisions, the considerations of alternative methods are, by default, not made.

The last questions are the *availability* and *practicability* of the alternatives identified. Under the guidelines, availability does not depend on ownership but on potential ownership. While that potential, as held in *Bersani v. United States Environmental Protection Agency*,<sup>465</sup> should be measured at the earliest point in the applicant's decision making, there is no apparent reason why it may not also arise at any point prior to a permit decision: If an alternative becomes available during the application process, it should be adopted. Practicability should, similarly, not depend upon the actual means of an applicant but, rather, drawing again on the standards of the section 402 program, on the means of applicants for similar activities. If alternatives are to serve as a counterforce to the economics of section 404 applications, the permit decision must be justified in terms that do not refer to ownership or economics, except to the extent that they render alternatives infeasible.

#### G. . . . and the Role of Mitigation

Mitigation is the most seductive concept in the field of wetlands protection. Small armies of scientists and scholars are researching and publishing on wetlands creation and restoration, as a new vehicle for the perpetuation of America's wetlands inventory.<sup>466</sup> Several projects have been launched in Louisiana to "mitigate" in *advance* of wetlands destruction, in effect paying at the door for the privilege.<sup>467</sup> In November 1988, the National Wetlands Forum announced its view that wetlands restoration should be a national priority, and a tool for

465. 674 F. Supp. 405 (N.D.N.Y. 1987), *aff'd sub nom.* Robichaud v. United States Envtl. Protection Agency, 850 F.2d 36 (2d Cir. 1988), *cert. denied*, 109 S. Ct. 1556 (1989).

466. See, e.g., NAT'L WETLANDS NEWSL., Sept.-Oct. 1986, at 2-17 (various articles reflecting federal and state agency and scientific perspectives on mitigation).

467. See, e.g., the description of the "Tenneco LaTerre" Project in Zagata, *Mitigation by "Banking" Credits—A Louisiana Pilot Project*, NAT'L WETLANDS NEWSL., May-June 1985, at 9, 10 [hereinafter *Tenneco LaTerre Project*]. See also Soileau, Fruge & Brown, *Mitigation Banking: A Mechanism for Compensating on Avoidable Fish and Wildlife Habitat Losses*, NAT'L WETLANDS NEWSL., May-June 1985, at 11, 12.

achieving a national goal of "no net loss."<sup>468</sup> In January 1989 this view was endorsed by the incoming administration's EPA.<sup>469</sup>

The primary difficulty with mitigation is the ease by which it can finesse the question of preventing wetlands loss. A difficult permit decision can be justified because the wetlands taken will be offset, at least in part, somewhere else.<sup>470</sup> The federal establishment looks with some pride at the acreage it has "saved" through mitigating conditions imposed in its section 404 permits,<sup>471</sup> ignoring the larger figure on wetlands dredged and filled. At the everyday level, the practice of mitigation has turned section 404 into "Let's Make a Deal," a game played actively by the U.S. Fish and Wildlife Service and National Marine Fisheries Service on the pragmatic theory that some chips are better than none.<sup>472</sup>

Notwithstanding the participation by the wildlife and fisheries agencies, the deals are poor. They rarely result in parity: as a matter of numbers, the wetlands lost outweigh those gained. They rarely result in quality; the wetlands taken are part of a larger living ecosystem, while those offered may be as isolated and doubtfully productive as Bersani's proposed rock quarry<sup>473</sup> or the marsh fed by urban runoff in *National Audubon Society v. Hartz Mountain Development Corp.*<sup>474</sup>

468. WETLANDS POLICY FORUM REPORT, *supra* note 43J, at 18, 42.

469. OFFICE OF WATER, OFFICE OF WETLANDS PROTECTION, ENVIRONMENTAL PROTECTION AGENCY, WETLANDS ACTION PLAN: EPA'S SHORT-TERM AGENDA IN RESPONSE TO RECOMMENDATIONS OF THE NATIONAL WETLANDS POLICY FORUM 13, 16 (1989) [hereinafter EPA'S RESPONSE]; see also Fish & Fields, *EPA Releases Wetlands Action Plan in Response to Forum Recommendations*, NAT'L WETLANDS NEWSL., Jan.-Feb. 1989, at 4.

470. See *National Audubon Soc'y v. Hartz Mountain Dev. Corp.*, 14 *Env'tl. L. Rep. (Env'tl. L. Inst.)* 20,724 (D.N.J. 1983); FINAL DETERMINATION—LAKE ALMA, *supra* note 14F. See also the comments of local officials on Lake Alma, following EPA's exercise of its section 404(c) authority, who stated: "[O]ur mitigation plan was a good plan. Although we were not proposing an acre-per-acre replacement for wetlands lost, we were still offering a good plan." *Lake Alma Dispute Continues*, 20 *Env't Rep. (BNA)* 1799 (1989). See also the comments of David Ortman, Friends of the Earth, on a recently permitted shopping mall in Oregon, despite the availability of a 250-acre industrial site less than a mile away. Mr. Ortman stated that "EPA Regional Administrator Robie Russell caved in and approved the water meadow fill 'with mitigation.'" Ortman, *Let's Call Them as Water Meadows*, ENVTL FORUM, Jan.-Feb. 1989, at 21, 25.

471. See *Wetland Regulation: Four Viewpoints on Section 404*, EPA J., Jan.-Feb. 1986, at 3:

As a result of this [404] process, the Corps of Engineers annually denies slightly more than three percent of project applications. About one-third of the permits are significantly modified from their original application, and about 14 percent of the 11,000 annual permit applications are withdrawn by applicants. The Congressional Office of Technology Assessment has estimated that these denials, modifications, and withdrawals save 50,000 acres of precious wetlands every year.

472. See LaRoe, *Wetland Habitat Mitigation: An Historical Overview*, NAT'L WETLANDS NEWSL., Sept.-Oct. 1986, at 8-10; see also GAO REPORT, *supra* note 10.

473. *Bersani v. United States Env'tl. Protection Agency*, 674 F. Supp. 405 (N.D.N.Y. 1987), *aff'd sub nom. Robichaud v. United States Env'tl. Protection Agency*, 850 F.2d 36 (2d Cir. 1988), *cert. denied*, 109 S. Ct. 1556 (1989).

474. 14 *Env'tl. L. Rep. (Env'tl. L. Inst.)* 20,724 (D.N.J. 1983).

Indeed, as with many experiments in creating natural systems, they may not work at all. Added to the technical difficulties of any mitigation project are genuine differences of opinion over what the project should accomplish. In Louisiana, where the coastline is eroding from natural and manmade causes, mitigation offers are based, not on creating new wetlands, but on forestalling the loss of those that now exist—hardly a zero sum game.<sup>475</sup> On a national level, the USFWS has developed its own goals through an elaborate system of habitat evaluation, rating natural systems in accordance with their productivity.<sup>476</sup> Under this system, mitigation can be provided by “enhancing” the value of the habitat surrounding a project, for example by planting foods and managing water levels for ducks. However such a tradeoff is justified, the fact will remain that beforehand there were 100 acres of wetlands, and now there are only fifty. Degraded wetlands can always be enhanced; dredged and filled wetlands are gone.

The first rule of the section 404 program is, then, as EPA has pronounced it and the *Bersani* court has accepted: First, do no harm. Mitigation is a measure of last, not first, resort. Until this principle is actually implemented by permit review staffs, the concept of mitigation will continue to wag the dog, pointing it away from those hard and necessary decisions that will avoid wetlands loss.<sup>477</sup>

These problems noted, a second rule becomes necessary because, so long as there is section 404 permitting, even on the narrower scale prescribed in this article, there will be losses. For these, the proposed rule is straightforward: creation or restoration of identical habitat, at a ratio of three acres to one. No projected “loss prevention.” No projected increase in the number of ducks or deer. No rock quarries substituted for functioning swamps. If you take a swamp, you make one. Indeed, you make three because the chances are good that the project will not survive, and, for the same reason, you make them in advance of other project construction, not afterwards, not even concurrently, while there is still time to adjust. You also make three because we have already lost too many acres of swamps and marshes, and the need to restore them—as the need to restore abandoned strip mines and to clean abandoned waste sites—is great. To be sure, the appli-

475. See *Tenneco LaTerre Project*, *supra* note 467, at 10-11.

476. See Holmberg & Misso, *Mitigation: Determining the Need*, NAT'L WETLANDS NEWSL., Sept.-Oct. 1986, at 10-11.

477. To be sure, both the WETLANDS POLICY FORUM REPORT, *supra* note 437, and EPA'S RESPONSE, *supra* note 469, recognize the last resort nature of mitigation. The fact is, however, that in practice mitigation is usually the first resort in the bargaining session between the Corps, the applicant, and the U.S. Fish and Wildlife Service, and it is too often where the Corps ends its permit review responsibilities. See *supra* text accompanying notes 123-25.

cant is not responsible for all that has gone before, but his agriculture, his bulkheads, his line of activity most assuredly is responsible, and it is time to start paying the bill. We have lost more than half of the wetlands of America and, absent a massive restoration program, we will not see their like, their productivity, or their beauty again. The United States government cannot pay the bill, nor should its taxpayers be asked to do so. The bill should be presented to those who insist on taking the remainder.

Mitigation is not the right concept for the section 404 program. It is the concept of tradeoffs, and it currently does far more harm to the program in diverting its focus from loss prevention than it "saves" in wetland acres. The appropriate concept is restoration, only as a last resort, and only on a scale that will ensure that the wetlands base is, eventually, restored.

#### *H. Regional or National Need*

One final consideration remains. We are dealing with a resource of critical national importance. It is diminishing in bits and pieces, permit by permit, before our very eyes. Were an analogy made to any other resource protection program, the Endangered Species Act would offer the closest parallel and indeed the case could be made that, in simple economics, wetlands are the ultimate critical habitat. No permit program, by itself, can hope to stem the tide. Ultimately, governmental programs of preclusive zoning, accelerated acquisition, and massive restoration will be necessary.<sup>478</sup> These remedies are topics for another day.

The appropriate role of a strong 404 program is to buy these programs time. Given the incremental, piecemeal nature of the losses under the program, no test, alternatives or any other, can prevail without reinforcement. The Endangered Species Act provides this reinforcement through several additional criteria in its exemption process; one of these criteria is that the project be of "regional or national significance."<sup>479</sup> Such a requirement would be a big step for the 404 program. As noted early in this article, EPA once tried a requirement that the permitting be "necessary,"<sup>480</sup> and then abandoned it.

EPA should try again. In the context of buying time, a requirement of regional or national need is necessary. The takings issue it will necessarily invoke should be faced and stared down. If it cannot be, nothing is lost. As it now stands, we are losing too much.

478. For one such discussion, see Houck, *supra* note 108.

479. See *supra* text accompanying note 416.

480. See *supra* text accompanying note 29.

## VI. CONCLUSION

Section 404 is a bold experiment. It has attempted to harness the energies of the Corps of Engineers with the instincts of the EPA. It has attempted to stop the degradation of more than one hundred million acres of wetlands, the most important natural ecosystem in America and the most endangered. It has sought to offset the economics of plowing under, filling over, and dredging through the cheapest land available for many enterprises and the most prized land available for others. And it has sought to achieve this offset through a test bot-tomed on alternatives.

The alternatives test raises vexing conceptual problems. It also challenges fundamental ideas of private ownership, free enterprise, federalism, economic growth, and development. So do, however, nearly all environmental laws. And nearly all of these laws stumble around and through the concept of alternative courses of action. The problems cannot be avoided.

The question, then, is not whether alternatives should be critical to section 404 but, rather, how to make them work most effectively to accomplish the goals of the Act. The experience of the current section 404 program, and the successes and failures of alternatives review under similar programs, point to two recurring lessons. If the goal is to avoid harm, then the scope of alternatives must be broad and their effect must be dispositive. If this article has helped to demonstrate these lessons, and to present specific ways to strengthen the role of alternatives under section 404, it has been worthwhile.