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Practicable Alternatives for Wetlands Development Under the Clean Water Act

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Summary

Section 404(b) of the Clean Water Act authorizes a "practicable alternatives" requirement for dredge and fill permits. EPA has adopted guidelines that set out and interpret that requirement, but the U.S. Army Corps of Engineers has substantial discretion in deciding its application to specific sites, and there can be significant variation in practice. This Article examines the practicable alternatives requirement, including comparisons with similar requirements in federal law; discusses other federal, state, regional, and local requirements that intersect with and shape the §404 process; and analyzes how practicable alternatives and other CWA requirements can be met. It makes recommendations for revising the practicable alternatives requirement, process, and decision criteria to improve its role in protecting wetlands resources.

A major homebuilder has proposed a master-planned community for an attractive natural area.[1] Due diligence discovered that part of the site is a designated wetland. The homebuilder obtained a rezoning under the local zoning ordinance, but realized she may also need a §404 permit under the Clean Water Act (CWA)[2] to move forward,[3] which is granted by the U.S. Army Corps of Engineers (the Corps). Getting a permit can take up to one year or more, and guidelines adopted under the Act require the homebuilder to accept a "practicable alternative."[4] This requirement was not welcome. The homebuilder looked at the market and chose a site that best fit her project. After much discussion and analysis, she was allowed to reject alternate sites as impracticable. However, she agreed to on-site design changes that avoided and minimized the project's impact on wetlands, such as the relocation of roads and design modifications.

Another family owns a lot adjacent to a river that is partly a wetland. They want to build a home on the lot,

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1. *See* Todd Larue et al., RCLCO, The Villages Is Back on Top: The Top-Selling Master-Planned Communities of 2017 (2018) ("Overall, home sales at the nation's 50 top-selling master-planned communities (MPCs) surpassed 2016 totals by over 17%."), *available at* http://www.rclco.com/advisory-mpc-survey-2017-year-end-2018-01-04; Daniel R. Mandelker, *New Perspectives on Planned Unit Developments*, 52 Real Prop. Tr. & Prob. L.J. 229 (2017); Final Clean Water Act Section 404(b)(1) Guidelines Evaluation for the Newhall Ranch and Farming Company's Newhall Ranch Resource Management and Development Plan [hereinafter Newhall Ranch Plan] (on file with author). *See* Friends of the Santa Clara River v. U.S. Army Corps of Eng'rs, 887 F.3d 906, 48 ELR 20054 (9th Cir. 2018) (upholding practicable alternatives analysis for Newhall Ranch project).
2. 33 U.S.C. §§1251-1387, ELR Stat. FWPCA §§101-607. Section 1344 is called the §404 permit after the section of the bill in which it appeared. The statute does not contain criteria that determine whether a permit should be issued.
3. The project may or may not be in a wetland that requires a federal permit from the Corps. The Corps defines "wetlands" in 33 C.F.R. §328.3(b) as: "Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions . . . Wetlands generally include swamps, marshes, bogs, and similar areas." *See* Jon Kusler, Common Questions: Wetland Definition, Delineation, and Mapping, *available at* https://www.aswm.org/pdf_lib/14_mapping_6_26_06.pdf; U.S. Army Corps of Engineers, Corps of Engineers Wetlands Delineation Manual (2013).
4. 40 C.F.R. §230.10(a) (2018).

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but are told they must move it to an upland location on the lot that avoids discharges of fill material into the wetlands, eliminating the need to obtain a §404 permit. Their architect did not see this request as a problem, and they made the change.

These two cases are outermost examples of how the practicable alternatives requirement works.[5] Though it can require off-site alternatives to avoid damage to wetlands, a change in project location does not usually occur, as the master-planned community example indicates. More typical is a conditioned development approval that requires on-site project changes to avoid and minimize impacts to wetlands, which occurred in both examples.

This application of the §404 practicable alternatives requirement occurs because of program features that give the Corps substantial discretion in deciding how it should be applied. Criteria for deciding when alternatives are required are contained in a complex and scattered set of incomplete and conflicting regulations, memoranda, regulatory guidance letters (RGLs), and cases elevated to Corps headquarters for decision. Many of these documents are unpublished and difficult to find.

Especially absent is guidance on how to deal with different types of projects and the alternatives they require. The inclusion of cost as a factor to consider allows the Corps to reject alternatives that would have a less damaging environmental impact if costs to the developer are excessive. Applicants must also prepare a purpose and need statement for their project, and Corps practice, approved by the courts, often considers statements based on an applicant's general project objectives when developing the overall project purpose for the §404(b)(1) alternatives analysis. This concession narrows the scope of any project alternatives that have to be considered.

Another important factor is Corps guidance, also upheld by the courts, that allows it to decide whether a permit applicant is entitled to a full evidentiary hearing. Permit applications are usually reviewed in an informal process that allows courts to take a deferential view of Corps decisions. Courts provide only limited guidance on the alternatives requirement, and Corps decisions are upheld in almost all cases.

Part I of this Article provides background by discussing alternatives requirements in other federal environmental legislation that the U.S. Congress adopted before this requirement appeared in the CWA. Part II discusses the §404 permit and the practicable alternatives requirement under the CWA. Part III discusses other federal legislation that applies to §404 permits, such as the National Environmental Policy Act (NEPA),[6] and federal legislation that delegates authority to states they can apply to §404 permits, such as state water quality certifications.

Part IV considers compliance with state, regional, and local planning and land use regulation. Part V discusses the permit application review process, while Part VI explains the requirement that applicants must provide a purpose and need statement for their project. Part VII discusses how the practicable alternatives requirement is applied, while Part VIII reviews the "significant degradation" and "public interest" requirements that must also be met before a permit can issue. Part IX concludes.

When reading this Article, it will be helpful to keep in mind that the Corps has the authority to apply the practicable alternatives requirement when it reviews applications for §404 permits. The Corps applies guidelines for this requirement adopted by the U.S. Environmental Protection Agency (EPA), but EPA does not have decision authority though the Corps may consult it and other agencies on permit applications. The first step in applying the practicable alternatives requirement is to decide on the project purpose, which determines the alternatives that must be considered. Deciding whether the project is water-dependent is the next step, which determines whether presumptions apply that can make alternatives practicable. The practicable alternatives requirement is applied once these decisions are made, and the Corps then applies significant degradation and public interest tests also contained in the regulations. Compliance with other federal laws must be satisfied during this process. These concepts and requirements are explained in the sections that follow.

I. The Alternatives Requirement in Federal Environmental Legislation

A requirement that a developer must consider alternatives to a proposed development is a new concept that first appeared in federal environmental legislation. It does not usually exist in zoning. A business that asks for a rezoning does not have to show that alternate locations are practicable.[7] Other issues dominate this decision, such as compliance with the local comprehensive plan.

Congress first adopted an environmental statute with an alternatives requirement in 1968. It demands the selection of

5. A §404 permit is also required for public projects, such as roads and highways, but this Article concentrates on the permit requirement as it applies to private development.

6. 42 U.S.C. §§4321-4370h, ELR Stat. NEPA §§2-209.

7. Land use regulations subject to free speech limitations may be an exception. They must satisfy the U.S. Supreme Court's time, place, and manner requirement by showing that a regulation leaves open "ample alternative channels for communication." Daniel R. Mandelker, Free Speech Law for on Premise Signs §2:7(1) (2016 & Supp. 2017), *available at* http://law.wustl.edu/landuselaw/Articles/Handbook%202016%20Clean.pdf. Other federal statutes that affect local land use regulation may also require consideration of alternatives. *E.g.*, Telecommunications Act of 1996, 47 U.S.C. §332(c)(7)(B).

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alternatives to transportation projects when they affect public parks and other designated uses, such as historic uses.[8] An alternate location must be selected if a "prudent and feasible alternative" is available.[9] This is a substantive requirement.

Congress next adopted an alternatives requirement in 1970 in NEPA.[10] It requires all federal agencies to prepare a "detailed statement," now known as an environmental impact statement, on "federal" actions if they are "major" and "significantly affect . . . the quality of the human environment."[11] The impact statement must discuss "alternatives to the proposed action."[12] This requirement does not have a substantive effect,[13] as federal agencies do not have to select an alternative to a proposed action. They need only provide an adequate discussion of alternatives that are reasonable.[14]

II. The §404 Permit and the Practicable Alternatives Requirement Under the CWA

Congress next adopted a practicable alternatives requirement in the CWA in 1972, which applies to permits for dredging and filling activities that can include development in wetlands. This requirement is substantive, but differs from alternatives requirements previously adopted in federal legislation.

A. *Wetlands as a Natural Resource*

Protection of wetlands is motivated by the importance of wetlands as a natural resource that provides important ecological, economic, and social benefits.[15] They create opportunities for recreation and education and support economic activities, such as commercial fishing. Wetlands have important resource values, provide important ecological services, and are important to many species of wildlife for food, habitat, and support of the food chain. They control shoreline erosion and provide flood peak reduction through temporary storage of flooding. Groundwater recharge in wetlands occurs through the infiltration and percolation of surface water.

Wetlands also improve water quality by temporarily retaining pollutants, and may moderate local temperatures and contribute to global atmospheric stability. Time has not been kind to this major natural resource. Between 30-50% of the nation's wetlands had disappeared by the end of the last century,[16] and significant declines have continued, though not as much recently.[17]

B. *The §404 Permit*

The CWA does not regulate development in wetlands directly. Protection occurs under §404, which requires a permit from the Corps[18] for dredge and fill activities in the waters of the United States.[19] Navigability is not required, but regulations interpreting the statute[20] exclude some wetlands.[21]

There are other limitations. Development that affects wetlands can occur but will not require a permit if it does not qualify[22] as dredge and fill.[23] There must also be a "discharge of a pollutant" from a "point source."[24] This

8. 49 U.S.C. §303(c), discussed in Daniel R. Mandelker et al., NEPA Law and Litigation §2:31 (2018 ed.) [hereinafter NEPA Law and Litigation].
9. 49 U.S.C. §303(c)(1).
10. 42 U.S.C. §§4331-4347.
11. *Id.* §4332(2)(C). A §404 permit is a federal action. 40 C.F.R. §1508.18 (2018). Council on Environmental Quality regulations that implement the statute provide that "'[m]ajor' reinforces but does not have meaning independent of 'significantly.'" *Id*. An agency may prepare an environmental assessment if it decides an action will not have an environmentally significant effect. *Id.* §1508.9. *See*, *e.g.*, Environmental Assessment 404(b)(1) Evaluation Public Interest Review, Permit Application Number 2004-0004-AOA, Valley Canyon Partners—Residential Development (on file with author).
12. 42 U.S.C. §4332(2)(C)(iii)x.
13. NEPA Law and Litigation, *supra* note 8, §§10:14-10:16.
14. *Id.* §10:16.
15. Paul A. Keddy, Wetlands: Principles and Conservation ch. 1 (2d ed. 2010); Dennis W. Magee, *A Primer on Wetlands Ecology*, *in* Wetlands Law and Policy: Understanding Section 404, at 43-49 (Kim Dianna Connolly et al. eds., American Bar Association 2005) [hereinafter Wetlands Law]; Jon Kusler, Common Questions: Wetland Conservation and the Protection of Migratory Birds (2006), *available at* https://www.aswm.org/pdf_lib/13_migratory_birds_6_26_06.pdf; Jon Kusler, Our National Wetland Heritage: A Protection Guidebook (1983); William J. Mitsch & James G. Gosselink, Wetlands ch. 16 (5th ed. 2015); Office of Technology Assessment, Wetlands Their Use and Regulation 37-68 (1984); U.S. EPA, Watershed Academy Web: Wetland Functions and Values, *available at* https://cfpub.epa.gov/watertrain/pdf/modules/WetlandsFunctions.pdf. *See also* U.S. Fish & Wildlife Service, *National Wetlands Inventory*, https://www.fws.gov/wetlands/ (last updated June 25, 2018).
16. Office of Technology Assessment, *supra* note 15, at 87 (noting that conversion was caused by activities such as mining, agriculture, forestry, oil and gas extraction, and urbanization).
17. Four hundred and fifty-eight thousand acres of wetlands were lost from the 1950s to the 1970s, while 290,000 acres were lost from the 1980s to the 1990s. Thirteen thousand eight hundred acres were lost from 2004 to 2009. U.S. Fish & Wildlife Service, Status and Trends of Wetlands in the Conterminous United States 2004 to 2009, at 39 (2011), *available at* https://www.fws.gov/wetlands/documents/Status-and-Trends-of-Wetlands-in-the-Conterminous-United-States-2004-to-2009.pdf. Twenty-six percent of that loss was attributable to development. *Id.* at 41. *See also* R. Eugene Turner et al., *Count It by Acre or Function—Mitigation Adds Up to Net Loss of Wetlands*, 23 Nat'l Wetlands Newsl. 5, 15 (2001).
18. 33 U.S.C. §1344(a). The Corps acts as the designate of the Secretary of the Army. For a description of the program, see Margaret (Peggy) Strand & Lowell M. Rothschild, Wetlands Deskbook (4th ed. ELI Press 2015).
19. The statute uses the term "navigable waters." 33 U.S.C. §1344(a). The statute then defines this term as "waters of the United States." *Id.* §1362(7). The regulations use this term. 33 C.F.R. §328.1 (2018).
20. Clean Water Rule: Definition of "Waters of the United States," 80 Fed. Reg. 37054 (June 29, 2015).
21. For discussion of the Supreme Court cases interpreting this term, see Royal C. Gardner, Lawyers, Swamps, and Money 39-52 (2011); Lawrence R. Liebesman et al., Rapanos v. United States*: Searching for a Significant Nexus Using Proximate Causation and Foreseeability Principles*, 40 ELR 11242 (Dec. 2010).
22. 40 C.F.R. §232.2 (2018) (defining discharge of dredged material and discharge of fill material).
23. An example is sheet flow across newly created lawns on which fertilizer, pesticides, and herbicides are applied. There are also important exemptions. Normal farming, silviculture, and ranching activities are exempt. *Id.* §432.3(c)(1). This is a major exclusion because farming and silviculture are responsible for much wetlands destruction.
24. The discharge of a pollutant requires a permit under §404. 33 U.S.C. §1311. A "discharge of a pollutant" is defined as "any addition of any pollutant to navigable waters from any point source." *Id.* §1362(12)(A). The term "point source" is defined in *id*. §1362(14). "Pollutant" is defined to include "dredged spoil." *Id*. §1362(6). *See*, *e.g.*, National Mining Ass'n v. U.S. Army Corps of Eng'rs, 145 F.3d 1399, 28 ELR 21318 (D.C. Cir. 1998)

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requirement eliminates consideration of development in and adjacent to wetlands that is outside the four corners of this definition, including sediment from improperly managed construction sites; crop and forest lands; eroding stream banks; salt from irrigation practices; acid drainage from abandoned mines; and bacteria and nutrients from livestock, pet wastes, and faulty septic systems.

Responsibility for the dredge and fill permit requirement is split between the Corps and EPA, which have different missions.[25] This decision was a compromise between the two branches of Congress, as they could not agree on which agency to select.[26] The Corps approves permits, but it applies EPA guidelines that include the practicable alternatives requirement.[27] EPA has a statutory veto authority over §404 permits.[28]

State statutes that regulate development in wetlands can escape the problems of the federal law,[29] and an applicant for a §404 permit must also obtain a state permit when a state law applies. States do not have a jurisdictional problem because state legislative authority is plenary and not limited to navigable waters.[30] State legislation can require a protective buffer strip around wetlands, for example.[31] It need not limit statutory authority to the "discharge of a pollutant" because it does not have to be included in a water pollution statute,[32] though many state statutes regulate wetlands through water quality programs.[33] It can include standards for permit review that are not water-related.[34] Federal law authorizes the delegation of the dredge and fill permit program to the states,[35] but this option has seldom been exercised.[36]

C. *The Practicable Alternatives Requirement*

An awkwardly written paragraph in the CWA authorizes a "practicable alternatives" requirement for §404 permits. This paragraph requires a "disposal site" to be specified for dredge and fill permits for projects involving dredging under guidelines, now adopted as regulations,[37] to be developed by EPA in consultation with the Corps.[38] A "disposal site" can be a wetland site for which a dredge and fill permit has been issued. EPA adopted guidelines[39] in 1980 that interpret the practicable alternatives requirement: "[N]o discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences."[40] This

(invalidating rule covering incidental fallback under the dredge and fill provision); Avoyelles Sportsmen's League, Inc. v. Marsh, 715 F.2d 897, 922-26, 13 ELR 20942 (5th Cir. 1983) (landclearing activities covered); National Ass'n of Home Builders v. U.S. Army Corps of Eng'rs, No. 01-0274, 2007 WL 259944, 37 ELR 20028 (D.D.C. Jan. 30, 2007) (revised incidental fallback rule invalidated); William L. Want, Law of Wetlands Regulation §§4:33-4:43 (2017 Supp.); H. Michael Keller, *Regulated Activities*, *in* Wetlands Law, *supra* note 15, at 105-49; J. Richard Creeks, *Repeal of the Tulloch Rule: Is the Tide of Wetland Regulation Receding*?, 15 J. Nat. Resources & Envtl. L. 149 (2000).

25. Alyson Flournoy found four major structural flaws in the design of the dredge and fill statute. Alyson C. Flournoy, *Section 404 at Thirty-Something: A Program in Search of a Policy*, 55 Ala. L. Rev. 607, 608 (2004). These were the lack of a clear goal, the division of administrative authority between two federal agencies, reliance on a water law to protect wetlands, and the regulation of wetlands activities in a pollution control statute.
26. 1 Comm. on Public Works, 93d Cong., A Legislative History of the Water Pollution Control Act Amendments of 1972, at 250 (Comm. Print 1973). Oliver Houck has described this division of authority, and the history of interagency disagreement it caused. Oliver A. Houck, *Hard Choices: The Analysis of Alternatives Under Section 404 of the Clean Water Act and Similar Environmental Laws*, 60 U. Colo. L. Rev. 773 (1989). He noted the agencies had disagreed
    > at times bitterly, over the geographic scope of the Section 404 program, the kind of activities that are regulated within it, the wording of the [EPA] Guidelines for permit decisions, the binding effect of these Guidelines, the consideration of specific impacts, the role of cumulative impacts, and the responsibility for enforcement.

    Id. at 775.
27. *See infra* Part VII.
28. 33 U.S.C. §1344(c). For discussion, see William B. Ellis, *The EPA Veto and Related Matters*, *in* Wetlands Law, *supra* note 15, at 283. EPA has seldom exercised this authority. *See* U.S. EPA, Clean Water Act Section 404(c) "Veto Authority" (2016) (authority exercised 13 times since 1972; veto decisions listed), *available at* https://www.epa.gov/sites/production/files/2016-03/documents/404c.pdf.
29. *See* Want, *supra* note 24, §13:1 (noting 34 states have wetlands statutes and providing state summaries); Environmental Law Institute, State Wetland Protection: Status, Trends & Model Approaches (2008), *available at* https://www.aswm.org/pdf_lib/50_state_wetland_comparison.pdf; Environmental Law Institute, State Wetland Program Evaluation: Phase II (2006) [hereinafter Phase II] (evaluating seven core elements in state programs), *available at* https://www.eli.org/sites/default/files/eli-pubs/d16_05.pdf; Roxanne Thomas et al., Environmental Law Institute, State Wetland Program Evaluation: Phase I (2005) (evaluating 12 states), *available at* https://www.eli.org/sites/default/files/eli-pubs/d15_06.pdf.
30. *E.g.*, Utah Sch. Bds. Ass'n v. Utah State Bd. of Educ., 17 P.3d 1125 (Utah 2001) (upholding state law authorizing charter schools by applying rule that state constitutions are limits on and not grants of legislative authority); Young v. City of Ann Arbor, 255 N.W. 579 (Mich. 1934) (explaining rule).
31. N.J. Stat. Ann. §13:9B-16 (authorizing establishment of transition area adjacent to wetlands); *id*. §13:9B-17 (listing prohibited activities in transition areas).
32. *Id*. §13:9B-3 (defining "regulated activity").
33. Phase II, *supra* note 29, at 5-8.
34. *E.g.*, N.C. Gen. Stat. §113-229(e) (enacting "significant adverse impact" standard).
35. 33 U.S.C. §1344(g).
36. Rolf R. von Oppenfeld, *State Role in the Implementation of the Section 404 Program*, *in* Wetlands Law, *supra* note 15, at 321-25. For a cautionary discussion of delegation, see Oliver A. Houck & Michael Rolland, *Federalism in Wetlands Regulation: A Consideration of Delegation of Clean Water Act Section 404 and Related Programs to the States*, 54 Md. L. Rev. 1242 (1995). *See also* U.S. EPA, Final Report of the Assumable Waters Subcommittee (2017); David Evans, *Clean Water Act §404 Assumption: What Is It, How Does It Work, and What Are the Benefits?*, 39 ELR 10359 (May 2009).
37. *See* Environmental Law Institute, The Federal Wetland Permitting Program: Avoidance and Minimization Requirements 3-4 (2008) [hereinafter Avoidance] (explaining conflict between the Corps and EPA that led to adoption as a regulation), *available at* https://www.eli.org/sites/default/files/eli-pubs/d18_03.pdf.
38. 33 U.S.C. §1344(b)(1). This is a freehand though presumably accurate translation of the statutory language. The guidelines are to be based on criteria specified in *id*. §1344(c).
39. They are called the §404(b)(1) guidelines, for the section of the congressional bill in which they appeared.
40. 40 C.F.R. §230.10(a)(1) (2018). The regulation also states that an "otherwise" practicable alternative can be considered even if the applicant does not own the site. *Id*. For the *Federal Register* publication discussing comments on the proposed regulations, see Guidelines for Specification of Disposal Sites for Dredged or Fill Material, 45 Fed. Reg. 85336 (Dec. 24, 1980). *See* 40 C.F.R. §230.12(a) (2018) (proposed disposal sites for the disposal of dredged or fill material must comply with the guidelines).

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requirement is known as the least environmentally damaging practicable alternative requirement, or LEDPA.[41]

The EPA guidelines state that 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." Special aquatic sites,[42] which can include wetlands, are covered in the EPA guidelines by two presumptions.[43] One is based on water dependency, a new concept introduced by the EPA guidelines. It presumes a practicable alternative is available for a special aquatic site if a project is not water-dependent.[44] The second states that an alternative proposed for a special aquatic site is presumed to have "less adverse impact on the aquatic system."[45] These presumptions make it more difficult to reject an alternative as impracticable.

Permits issued under §404 are either general permit verifications for nationwide or regional permits, or individual permits.[46] A nationwide permit is authorized by §404[47] for activities defined by regulation as those that are substantially similar in nature and "cause only minimal individual or cumulative environmental impacts."[48] Ninety-four percent of the estimated 58,000 permits issued in a recent fiscal year were general permits,[49] which are not subject to a detailed alternatives analysis.[50] Roughly 3,000 permits were individual permits.[51] Ninety-three percent of the individual permits were approved.[52]

The examples given at the beginning of this Article show how the practicable alternatives requirement can work. It can require the relocation of a project, as in the first example, where the permit application covered a master-planned community, though this project required only on-site modifications. The residential example also required only on-site modifications. For these projects, the practicable alternatives requirement provided a conditioned use permit, much like a conditioned variance or conditional use permit in a zoning ordinance. This is a typical result.

III. Compliance With Other Federal Laws

A. *Federal Legislation and Delegation of Authority to the States*

Additional and important regulatory control of §404 permits is provided by EPA guidelines that require §404 permits to comply with other federal laws.[53] They include the Endangered Species Act (ESA),[54] the National Historic Preservation Act,[55] and NEPA, which is closely integrated with the §404 permit process. Compliance with federal laws that delegate decision authority to the states is also required, such as the Coastal Zone Management Act

41. Memorandums of Agreement (MOA); Clean Water Act Section 404(b)(1) Guidelines; Correction §II.C, 55 Fed. Reg. 9210 (Mar. 12, 1990) [hereinafter Memorandums of Agreement]. *See* Jon Schutz, *The Steepest Hurdle in Obtaining a Clean Water Act Section 404 Permit: Complying With EPA's 404(b)(1) Guidelines' Least Environmentally Damaging Practicable Alternative Requirement*, 24 UCLA J. Envtl. L. & Pol'y 235, 241-43 (2006).
42. 40 C.F.R. §230.3(m) (2018) ("geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values"). *See*, *e.g.*, City Club of N.Y. v. U.S. Army Corps of Eng'rs, 246 F. Supp. 3d 860, 866 (S.D.N.Y. 2017) (rejecting Corps determination that estuarine sanctuary was not a special aquatic site). *See also* 40 C.F.R. §230.41 (2018) (defining wetlands).
43. *But see* Telephone Interview with Virginia Albrecht, Special Counsel, Hunton & Williams, D.C. (Aug. 2, 2017) [hereinafter Albrecht Interview] (presumptions applied widely and not just to aquatic sites).
44. The restrictions on discharge state:
> Where the activity associated with a discharge which is proposed for a special aquatic site . . . does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (i.e., is not "water dependent"), practicable alternatives that do not involve special aquatic sites are presumed to be available, unless clearly demonstrated otherwise.

40 C.F.R. §230.10(a)(3) (2018).
45. "[W]here a discharge is proposed for a special aquatic site, all practicable alternatives to the proposed discharge which do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem, unless clearly demonstrated otherwise." *Id*.
46. The number of permits varies annually. For a chart that shows the number of permits issued from 2002 until 2014, see Institute for Water Resources, The Mitigation Rule Retrospective: A Review of the 2008 Regulations Governing Compensatory Mitigation for Losses of Aquatic Resources 26 (2015), *available at* http://www.iwr.usace.army.mil/Portals/70/docs/iwrreports/2015-R-03.pdf. Most individual permits are one to five acres or less. *Id*. at 34. For a discussion of permit types, see *id*. at 47-49.
47. 33 U.S.C. §1344(e)(1).
48. 33 C.F.R. §323.2(h) (2018). *See*, *e.g.*, Issuance and Reissuance of Nationwide Permits, 82 Fed. Reg. 1860 (Jan. 6, 2017).
49. E-mail From Doug Garman, Public Affairs Office, U.S. Army Corps of Engineers, to the author (Dec. 20, 2017) [hereinafter Garman E-mail].
50. Telephone Interview with Jon Devine, Senior Attorney, Natural Resources Defense Council (Sept. 15, 2017) [hereinafter Devine Interview]; Telephone Interview with Douglas M. Garman, Public Affairs Office, U.S. Army Corps of Engineers; David Olson, Regulatory Program Manager, Headquarters, U.S. Army Corps of Engineers; and Kiel Downing, Chief, Denver Regulatory Office, U.S. Army Corps of Engineers, Omaha District (Nov. 3, 2017) [hereinafter Headquarters Interview]; Northwest Envtl. Def. Ctr. v. U.S. Army Corps of Eng'rs, 817 F. Supp. 2d 1290 (D. Or. 2011) ("practicable alternatives" requirement "not directly applicable to General permits").
51. Garman E-mail, *supra* note 49. S*ee also* 33 C.F.R. §320.4(j) (2018) (permit processing to consider federal, state, and local requirements). For discussion, see Stephen M. Johnson, *Individual Permits*, *in* Wetlands Law, *supra* note 15, at 197-201. For an explanation of compliance procedures, see Memorandum From Corps of Engineers for Commanders, Major Subordinate Commands, and District Commands, Updated Standard Operating Procedures for U.S. Army Corps of Engineers Regulatory Program (July 1, 2009) [hereinafter Updated Standard Operating Procedures], http://www.spd.usace.army.mil/Portals/13/docs/regulatory/qmsref/eis/Regulatory%20SOP%20July%202009.pdf.
52. Garman E-mail, *supra* note 49.
53. 40 C.F.R. §230.10(b) (2018).
54. *Id*. §230.10(b)(3); 16 U.S.C. §§1531-1544, ELR Stat. ESA §§2-18. For discussion of the Act, see Lawrence A. Liebesman & Rafe Petersen, Endangered Species Deskbook (2d ed. 2010). The law authorizes the designation of critical habitat for endangered species, where development is severely restricted. *See* Amy Armstrong, *Critical Habitat Designations Under the Endangered Species Act: Giving Meaning to the Requirements for Habitat Protection*, 10 S.C. Envtl. L.J. 53 (2002).
55. 16 U.S.C. §§470 et seq. This Act requires federal agencies that license activities, such as activities licensed through §404 permits, to consider the effect of a permit on historic properties and give the national Advisory Council on Historic Preservation an opportunity to comment. The Corps has established regulations for compliance with the Act. 33 C.F.R. §325 app. C (2018). The law is a disclosure-and-comment law and does not require substantive changes in a project that would protect a historic resource. For discussion, see Sara C. Bronin & J. Peter Byrne, Historic Preservation Law ch. 3 (2012); Leslie E. Barras, National Trust for Historic Preservation, Section 106 of the National Historic Preservation Act: Back to Basics (2010), *available at* http://www.mhpn.org/wp-content/uploads/2012/08/NTHP-Back-to-Basics-Technical-Report.pdf.

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(CZMA)[56] and state water quality certifications under the CWA.[57] These laws create new veto points over §404 permits by adding additional state statutory authority.

The CZMA, for example, provides federal assistance for state coastal zone management programs that can include a permit program.[58] Washington State, for example, complied with the Act by adopting a powerful development permit program in its Shoreline Management Act.[59] The federal coastal management statute also includes a federal consistency requirement.[60] Federal actions with reasonably foreseeable effects on coastal uses and resources must be consistent with the enforceable policies of a state's approved coastal management plan. Section 404 permits are included in this requirement.

State certification of compliance with state water quality standards, effluent standards, and other "appropriate" requirements is required by §401 of the CWA.[61] The Corps cannot issue a §404 permit until the state or tribe where the discharge will originate has granted, granted with conditions, or waived a §401 certification. This is a broad delegation of authority. States may adopt additional policies they apply as part of their certification analysis that are not directly related to water quality, such as setbacks, buffers, and wetlands or state species protection, and may include a "No Net Loss" of wetlands goal.[62] States vary in how aggressively they use state certification.[63] It can supplement §404 requirements with additional limitations on wetlands development.

B. NEPA

Environmental analysis under NEPA is an integral part of the analysis conducted under §404. NEPA requires all federal agencies to prepare a "detailed statement," now known as an environmental impact statement, on "federal" actions if they are "major" and "significantly affect . . . the quality of the human environment."[64] NEPA also includes an alternatives requirement.[65] The difference is that the alternatives requirement under §404 is a substantive rule. NEPA only imposes an obligation to consider alternatives to proposed agency actions.[66] Analysis under NEPA is concurrent with analysis under §404, as the guidelines state that the analysis of alternatives in NEPA documents "will in most cases provide the information for the evaluation of alternatives" for permit decisions.[67] Environmental analysis under NEPA in environmental impact statements can in turn rely on other agencies,[68] as authorized by the NEPA cases.[69]

The difficulty with relying on NEPA analysis is that the evaluation of alternatives under NEPA serves an entirely different purpose from the evaluation of alternatives under §404.[70] Alternatives are evaluated under §404 to decide whether a practicable alternative must be selected. There is no such requirement in NEPA.[71] Council on Environmental Quality regulations state only that agencies shall "[r]igorously explore and objectively evaluate all reasonable alternatives."[72] They also state that agencies shall "[i]dentify the agency's preferred alternative or alternatives, if one or

56. 16 U.S.C. §§1451-1465, ELR Stat. CZMA §§302-319; 40 C.F.R. §230.10(a)(5) (2018).
57. 40 C.F.R. §230.10(b)(1) (2018).
58. Timothy Beatley et al., An Introduction to Coastal Zone Management (2d ed. 2002).
59. Tim Butler & Matthew King, *Overview*, *in* 24 Wash. Prac., Environmental Law and Practice §§20.1-20.7 (2d ed., July 2017 Supp.).
60. 16 U.S.C. §1456(c)(1)(A) (federal activities to be consistent to the maximum extent practicable with the enforceable policies of approved state management programs). *See* Ohio v. U.S. Army Corps of Eng'rs, 259 F. Supp. 3d 732, 754 (N.D. Ohio 2017) (cannot override state policy), *appeal dismissed sub nom*. State ex rel. DeWine v. U.S. Army Corps of Eng'rs, No. 17-4255, 2017 WL 8185847 (6th Cir. Dec. 8, 2017); Jeffrey L. Beyle, *A Comparison of the Federal Consistency Doctrine Under FLPMA and the CZMA*, 9 Va. Envtl. L.J. 207 (1989).
61. 33 U.S.C. §1341; 40 C.F.R. §230.10(b)(1) (2018) (may not violate state water quality standard). *See* PUD No. 1 of Jefferson County v. Washington Dep't of Ecology, 511 U.S. 700, 24 ELR 20945 (1994) (state can set stream flow conditions to water quality certifications).
62. *See* Office of Wetlands, Oceans, and Watersheds, U.S. EPA, Clean Water Act Section 401 Water Quality Certification: A Water Quality Protection Tool for States and Tribes 18-19 (2010), *available at* https://www.epa.gov/sites/production/files/2016-11/documents/cwa_401_handbook_2010.pdf.
63. For a report that reviews programs in several states, see Association of State Wetland Managers, Section 401 Certification Best Practices in Dredge and Fill Permit Programs (2012), *available at* https://www.aswm.org/pdf_lib/401_best_practices_summary.pdf. A few states have integrated their §401-certification process with the §404 process.
64. *Id*. §4332(2)(C). Council on Environmental Quality regulations that implement the statute provide that "'[m]ajor' reinforces but does not have meaning independent of 'significantly.'" 40 C.F.R. §1508.18 (2018). An agency may prepare an environmental assessment if it decides an action will not have an environmentally significant effect. *Id*. §1508.9. *See*, *e.g.*, Environmental Assessment 404(b)(1) Evaluation Public Interest Review, Permit Application Number 2004-0004-AOA, Valley Canyon Partners—Residential Development (on file with author).
65. 42 U.S.C. §4332(2)(C)(iii) (alternatives to the proposed action).
66. NEPA Law and Litigation, *supra* note 8, §§10:29-10:35.
67. 40 C.F.R. §230.10(a)(4) (2018). A NEPA document will either be an environmental assessment, in which the agency decides whether an environmental impact statement is required, or an environmental impact statement, in which the environmental impacts of the action are considered. The regulation also states that NEPA documents may have addressed a broader range of alternatives than the regulation requires, and that supplementation of NEPA documents is required if they do not consider alternatives in sufficient detail as required by the EPA guidelines. Consideration and evaluation of alternatives under coastal management programs and "other planning process" will also be considered. *Id*. §230.10(a)(5).
68. Hoosier Envtl. Council v. U.S. Army Corps of Eng'rs, 722 F.3d 1053, 1061 (7th Cir. 2013) (upholding Corps reliance on alternatives analysis by transportation agencies).
69. NEPA Law and Litigation, *supra* note 8, §8:49.60.
70. *See* Utahns for Better Transp. v. U.S. Dep't of Transp., 305 F.3d 1152, 1187 (10th Cir. 2002), *as modified on reh'g*, 319 F.3d 1207 (10th Cir. 2003) (comparing NEPA with the CWA, and holding that "NEPA prescribes the necessary process, but does not mandate a particular result"); White Tanks Concerned Citizens, Inc. v. Strock, 563 F.3d 1033, 1039, 39 ELR 20096 (9th Cir. 2009) (comparing analysis under NEPA with analysis under §404); Audubon Soc'y of Greater Denver v. U.S. Army Corps of Eng'rs, No. 14-cv-02749-PAB, 2017 WL 6334229 (D. Colo. Dec. 12, 2017) (Corps does not have to use NEPA alternatives in §404 analysis; NEPA anti-segmentation rule does not apply). One observer believes that courts are more comfortable when they review cases under NEPA than they are when they review decisions on §404 permits. Telephone Interview with Jan Goldman-Carter, Senior Manager and Counsel, National Wildlife Federation (Oct. 27, 2017) [hereinafter Goldman-Carter Interview].
71. *But see* Town of Norfolk v. U.S. Army Corps of Eng'rs, 968 F.2d 1438, 1447, 22 ELR 21337 (1st Cir. 1992) (Corps can rely on supplemental impact statement when doing practicable alternatives analysis).
72. 40 C.F.R. §1502.14(a) (2018).

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more exists."[73] Case law does not require selection of an alternative that is environmentally preferable.[74]

Courts have upheld an analysis of alternatives under NEPA for §404 permits,[75] but a court can hold analysis of alternatives inadequate,[76] and this decision could stop a §404 project if a plaintiff obtains a preliminary injunction.[77] Failure to comply with NEPA can also be fatal to a §404 permit. As one court held, a failure to consider costs as well as benefits in an impact statement for a deepwater port "tainted" the permit decision and made it invalid.[78] NEPA also separately requires an evaluation of alternatives when an environmental impact statement is not required.[79] A court can hold this provision is violated in §404 permit cases.[80]

Although coordination with NEPA analysis is essential, guidance should specify the role of NEPA in §404 reviews more clearly. The use of information collected in a NEPA analysis for permit reviews is questionable, because NEPA reviews do not consider the same issues considered in a practicable alternatives analysis. Guidance should clearly state that analysis under NEPA, as in environmental impact statements, should be accepted only if relevant to the practicable alternatives decision.

IV. State, Regional, and Local Planning and Land Use Regulation

Land use planning at state, regional, and local levels applies to projects that require §404 permits. Land use plans are not legally binding, but their policies can provide a basis for land use decisions and may include environmental elements relevant to a §404 permit application.[81]

Local land use regulations, most likely a zoning ordinance, also apply to §404 projects.[82] Many projects that require a §404 permit, like the single-family residence in the example at the beginning of this Article, probably comply with local zoning. Other projects, like the master-planned community also discussed there, probably require a rezoning.[83] Neighbors can challenge a rezoning in state court as a spot zoning arbitrary change that gives a developer a financial advantage.[84] Courts review spot zonings under a multifactor test that includes the size of the site, the purpose and need for the rezoning, compatibility with adjacent areas, and consistency with the comprehen-

73. *Id.* §1502.14(e).
74. Myersville Citizens for a Rural Cmty., Inc. v. Federal Energy Regulatory Comm'n, 783 F.3d 1301, 1324 (D.C. Cir. 2015) ("Even if an agency has conceded that an alternative is environmentally superior, it nevertheless may be entitled under the circumstances not to choose that alternative."); Sierra Club v. U.S. Army Corps of Eng'rs, 772 F.2d 1043, 1050, 15 ELR 20998 (2d Cir. 1985) (dredge and fill permit; "agency making a decision under this statute does not have to accord environmental concerns any more weight in the decision making process than other appropriate concerns"). *See also* Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350, 19 ELR 20743 (1989) ("If the adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental costs.").
75. City of Shoreacres v. Waterworth, 420 F.3d 440, 450, 35 ELR 20162 (5th Cir. 2005); Greater Yellowstone Coal. v. Flowers, 359 F.3d 1257, 1277, 34 ELR 20019 (10th Cir. 2004); *Town of Norfolk*, 968 F.2d at 1447; Gouger v. U.S. Army Corps of Eng'rs, 779 F. Supp. 2d 588, 617 (S.D. Tex. 2011).
76. *E.g.*, O'Reilly v. U.S. Army Corps of Eng'rs, 477 F.3d 225 (5th Cir. 2007) (remand; environmental assessment failed to sufficiently demonstrate that mitigation measures adequately addressed and remediated adverse impacts); Ohio Valley Envtl. Coal. v. Hurst, 604 F. Supp. 2d 860, 884, 39 ELR 20072 (S.D. W. Va. 2009) (failure to prepare impact statement on issuance of nationwide permit); Wyoming Outdoor Council Powder River Basin Res. Council v. U.S. Army Corps of Eng'rs, 351 F. Supp. 2d 1232, 1243 (D. Wyo. 2005) (failure to consider cumulative impacts).
77. NEPA Law and Litigation, *supra* note 8, §§4:63-4:73 (discussing preliminary injunctions in NEPA cases).
78. Sierra Club v. Sigler, 695 F.2d 957, 13 ELR 20210 (5th Cir.), *reh'g denied*, 704 F.2d 1251 (5th Cir. 1983).
79. 42 U.S.C. §4332(2)(E).
80. Van Abbema v. Fornell, 807 F.2d 633, 642, 17 ELR 20429 (7th Cir. 1986).
81. Several state land use planning statutes require mandatory or optional planning elements in comprehensive plans that address environmental concerns. Natural resources are the physical resource most usually addressed. *See*, *e.g.*, Cal. Gov't Code §65302(d)(1) (natural resources and regulation of land use in stream channels; prevention, control, and correction of the erosion of soils, beaches, and shores; protection of watersheds, and flood control). *See also* American Planning Association, Growing Smart Legislative Guidebook. Model Statutes for Planning and the Management of Change §7-209 (Stuart Meck ed., 2002) [hereinafter Growing Smart Legislative Guidebook] (extensive critical and sensitive areas element for comprehensive plans), *available at* https://www.huduser.gov/Publications/pdf/growingsmart_guide.pdf. Carrying capacity analysis is another planning technique used to determine the ability of environmental resources to accept new development. Jonathan Douglas Witten, *Carrying Capacity and the Comprehensive Plan: Establishing and Defending Limits to Growth*, 28 B.C. Envtl. Aff. L. Rev. 583 (2001).
82. It is possible that a project could be permitted as a conditional use. The Standard Zoning Enabling Act authorized a local zoning board to grant a conditional use, also called a special exception, from the zoning ordinance, and state zoning statutes have this provision. U.S. Department of Commerce, A Standard State Zoning Enabling Act §7 (1926), https://planning-org-uploaded-media.s3.amazonaws.com/legacy_resources/growingsmart/pdf/SZEnablingAct1926.pdf. A conditional use is a use that requires a discretionary review to decide whether it is appropriate for the district in which it plans to locate. County Council of Prince George's County v. Zimmer Dev. Co., 120 A.3d 677, 691 n.17 (Md. 2015) ("zoning device that provides a middle ground between permitted and prohibited uses"); People's Counsel for Balt. County v. Loyola Coll. in Md., 956 A.2d 166, 197 (Md. 2008) ("the local legislature puts on its 'Sorting Hat' and separates permitted uses, special exceptions, and all other uses"). Conditional uses are limited in scope and would not ordinarily include major projects. Review usually is to determine compatibility with adjacent uses, and would not consider environmental impacts.

    Compliance with plans and zoning does not guarantee that a permit will be granted; there must also be compliance with federal regulations. Northwest Bypass Group v. U.S. Army Corps of Eng'rs, 552 F. Supp. 2d 97, 118 (D.N.H. 2008) (also holding decision to construct road was a land use decision covered by regulation, and accepting Corps decision there was no overriding national factor requiring rejection of local decision); Park v. United States, 286 F. Supp. 2d 201, 208 (D.P.R. 2003) (permit denied; state permit does not guarantee issuance of Corps permit).
83. Rezoning approved, for example, Evans v. Teton County, 73 P.3d 84 (Idaho 2003) (780 acres; golf course and residential resort planned unit development; several plan policies considered); Baumgarten v. Town Bd. of the Town of Northampton, 826 N.Y.S.2d 811, 813-14 (N.Y. App. Div. 2006) (18 acres; parcel located in mixed-use area; no adverse impact on surrounding properties; benefitted the general welfare of the community by creating seasonal housing to accommodate tourism); Murden Cove Pres. Ass'n v. Kitsap County, 704 P.2d 1242, 1246-47 (Wash. Ct. App. 1985) (11.7 acres; rural undeveloped to light manufacturing and proposed planned unit development; consistent with plan for nonresidential use and urban concentration concept). Rezoning disapproved, for example, Greater Yellowstone Coal., Inc. v. Board of County Comm'rs of Gallatin County, 25 P.3d 168, 174 (Mont. 2001) (323 acres, but incompatible with surrounding area, much publicly owned, and inconsistent with comprehensive plan).
84. For discussion, see Daniel R. Mandelker, *Spot Zoning: New Ideas for an Old Problem*, 48 Urb. Law. 737 (2016).

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sive plan.[85] These factors do not include environmental impacts on resources such as wetlands or an evaluation of alternate sites.

Corps regulations and guidance for §404 permits address planning and zoning at several points. EPA guidelines for the consideration of alternatives under §404 only allow consideration of a "planning process" in which practicable alternatives were considered.[86] Corps regulations for §404 permits allow consideration of "officially adopted state, regional, or local land use classifications, determinations, or policies" along with other national factors.[87] Corps regulations for the public interest review[88] state that the district engineer will "normally accept" decisions by state, local, and tribal governments on "land use matters" unless there are "significant issues of overriding national importance."[89] However, local zoning and planning do not control the Corps decision, and a zoning designation does not preclude an alternative from being practicable or evaluated.[90]

These policies provide an incomplete basis for Corps reliance on planning and land use regulation. They do not limit reliance to plans and land use regulations that are relevant to the practicable alternatives decision.[91] A few district court cases, which did not rely on any guidances or regulations, nevertheless upheld Corps decisions to rely on regional and local comprehensive plans, sometimes selectively, and did not question the policies included in these plans.[92]

Consideration of land use plans in §404 reviews is complicated because the courts also allow state, regional, and local plans to be considered in environmental reviews required by NEPA, which are consulted as a basis for §404 permit decisions.[93] In *Carmel-by-the-Sea v. U.S. Department of Transportation*,[94] for example, the environmental impact statement admitted that some development could occur as an indirect environmental effect[95] of a highway project. Additional discussion of this development was unnecessary, however, because it was planned, accounted for, and properly analyzed in a local master plan. This holding is generally accepted.[96] However, the courts have not adopted

85. *Id*. at 762-82 (and suggesting that some of these factors are not helpful).
86. 40 C.F.R. §230.10(a)(5) (2018). *See* Northwest Envtl. Def. Ctr. v. Wood, 947 F. Supp. 1371, 1375, 27 ELR 20668 (D. Or.), *aff'd*, 97 F.3d 1460 (9th Cir. 1996) (applied to major semiconductor plant; local wetlands plan that included the plant had previously been approved in a practicable alternatives analysis).
87. 33 C.F.R. §336.1(c)(11)(ii) (2018). The regulation states that "[w]here officially adopted state, regional, or local land use classifications, determinations, or policies are applicable, they normally will be presumed to reflect local views and will be considered in addition to other national factors." Whether there is acceptance of local zoning depends on local zoning policies and how strong they are. Telephone Interview with Robert B. Barron, Project Manager, Jacksonville Division, U.S. Army Corps of Engineers (Oct. 12, 2017) [hereinafter Barron Interview].
88. *See infra* notes 263-75 and accompanying text.
89. 33 C.F.R. §320.4(2) (2018). The regulation states:
> Such issues would include but are not necessarily limited to national security, navigation, national economic development, water quality, preservation of special aquatic areas, including wetlands, with significant interstate importance, and national energy needs. Whether a factor has overriding importance will depend on the degree of impact in an individual case.

See Friends of the Santa Clara River v. U.S. Army Corps of Eng'rs, 887 F.3d 906, 921, 48 ELR 20054 (9th Cir. 2018) (Corps not arbitrary or capricious in rejecting certain alternatives because they failed to meet project or specific plan objectives).
90. U.S. Army Corps of Engineers Portland District, Alternatives Analysis Framework 5 (2016) (zoning is subject to adjustment; rezone procedures can be considered in terms of cost, existing technology, and logistics), *available at* http://www.nwp.usace.army.mil/Portals/24/docs/regulatory/apply/Alternatives_Analysis_Framework_18Apr2016.pdf. *See* Telephone Interview with Aaron Allen, Chief, North Coast Branch, Los Angeles District Regulatory Division, U.S. Army Corps of Engineers (Aug. 31, 2017) [hereinafter Los Angeles District Interview] (decision based on guidelines factors).
91. *But see Northwest Envtl. Def. Ctr.*, 947 F. Supp. at 1375, *aff'd*, 97 F.3d 1460 (9th Cir. 1996) (approving reliance on local wetlands plan that had previously been approved in a practicable alternatives analysis).
92. Center for Biological Diversity v. U.S. Army Corps of Eng'rs, CV 14-1667 PSG (CWx), 2015 WL 12659937, at *10 (C.D. Cal. June 30, 2015) (Corps did not adopt every detail and particularity of the specific plan, but identified specific plan's "basic objectives" and approximate amounts and types of development, and defined those key requirements and approximations as the requirements of the project), *aff'd sub nom*. Friends of the Santa Clara River v. U.S. Army Corps of Eng'rs, 887 F.3d 906, 48 ELR 20054 (9th Cir. 2018); Florida Clean Water Network, Inc. v. Grosskruger, 587 F. Supp. 2d 1236, 1240-42 (M.D. Fla. 2008) (upholding project purpose statement for airport that required alternatives to be "compatible with local and regional planning efforts," including county-prepared development plan for airport and surrounding development); Great Rivers Habitat Alliance v. U.S. Army Corps of Eng'rs, 437 F. Supp. 2d 1019, 1026-27 (E.D. Mo. 2006) (court relied on local plan and reports to approve statement of project purpose). *See also Northwest Envtl. Def. Ctr.*, 947 F. Supp. at 1375, *aff'd*, 97 F.3d 1460 (9th Cir. 1996) (major semiconductor plant; applied practicable alternatives guidance to rely on local wetlands plan that included the plant and that had previously been approved in a practicable alternatives analysis).
93. NEPA Law and Litigation, *supra* note 8, §10:50.
94. 123 F.3d 1142, 27 ELR 21428 (9th Cir. 1997). *See also* Van Abbema v. Fornell, 807 F.2d 633, 638, 17 ELR 20429 (7th Cir. 1986) (Corps had adequate basis for believing that project could be brought into compliance with local land use and zoning laws).
95. An indirect effect is an effect that is caused by an action, such as additional growth and development that is caused by a highway. Council on Environmental Quality regulations define "indirect effects" as those
> which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

40 C.F.R. §1502.16(b) (2018). *See* NEPA Law and Litigation, *supra* note 8, §10.52; Daniel R. Mandelker, *Growth-Induced Land Development Caused by Highway and Other Projects as an Indirect Effect Under NEPA*, 43 ELR 11068 (Dec. 2013). A leading case holding that new development that could be caused by a highway must be considered is *City of Davis v. Coleman*, 521 F.2d 661 (9th Cir. 1975).
96. Honolulutraffic.com v. Federal Transit Admin., 742 F.3d 1222 (9th Cir. 2014) (state-prepared alternatives analysis for transit project); Citizens for Smart Growth v. Secretary of Dep't of Transp., 669 F.3d 1203 (11th Cir. 2012) (feasibility study and corridor report); Utahns for Better Transp. v. U.S. Dep't of Transp., 305 F.3d 1152 (10th Cir. 2002) (accepted reliance on local plans as basis for rejecting alternative), *as modified on reh'g*, 319 F.3d 1207 (10th Cir. 2003); Laguna Greenbelt, Inc. v. U.S. Dep't of Transp., 42 F.3d 517, 25 ELR 20349 (9th Cir. 1994) (lack of more thorough discussion of induced growth accepted because sufficiently analyzed in referenced state materials); Isle of Hope Historical Ass'n, Inc. v. U.S. Army Corps of Eng'rs, 646 F.2d 215, 11 ELR 20679 (5th Cir. 1981) (Corps properly relied on local planning officials on planning and zoning issues); Piedmont Heights Civic Club, Inc. v. Moreland, 637 F.2d 430, 11 ELR 20257 (5th Cir. 1981) (regional development plan); Sierra Club N. Star Chapter v. LaHood, 693 F. Supp. 2d 958 (D. Minn. 2010) (accepting reliance on local plans in indirect effects analysis); Georgia River Network v. U.S. Army Corps of Eng'rs, 334 F. Supp. 2d 1329 (N.D. Ga. 2003) (same; in view of uncertainty surrounding development, agency properly relied on federal, state, and local regulations, including local land use plan).

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guidance that can decide when plans should be considered in a NEPA analysis, though they do not always defer to a land use plan. In one district court case, for example, the court refused to rely on a local plan whose approach to the project under review was self-serving opposition.[97]

There is similar precedent for deferring to land use plans under state environmental laws, but courts may give plans a more binding effect. Several states have laws that mimic NEPA by requiring environmental reviews of state and sometimes local government actions.[98] One of these laws, the California Environmental Quality Act,[99] requires environmental reviews of local zoning decisions. There is no substantive requirement for the selection of a practicable alternative, but alternatives must be discussed.

In *Citizens of Goleta Valley v. Board of Supervisors*,[100] the California Supreme Court upheld a refusal to consider alternate sites for a coastal shorefront hotel development in an environmental analysis. California mandates local coastal management programs that include land use plans. The county coastal program concluded, after an exhaustive regional and environmental analysis that included alternate sites, that the site selected was the most appropriate site for the project.[101] Under the circumstances, the court held the county was justified in relying on the coastal program to help it assess the feasibility of project alternatives in the environmental review process. An environmental review, the court held, is "not ordinarily an occasion for the reconsideration or overhaul of fundamental land use policy."[102]

Some state legislation has codified the holding in *Goleta*, and provides guidance on when the policies of a local comprehensive plan can be used to show compliance with an environmental analysis required by state statute. It provides that environmental reviews under a state law can rely on a comprehensive plan if significant environmental effects are adequately avoided or mitigated by the plan's environmental analysis. These laws also authorize reliance on environmental requirements in land development regulations.[103]

Corps regulations need to further define the relationship between local planning and §404 permitting. Guidance is especially needed to provide criteria for when a plan or land use regulation is relevant. State legislation specifying when plans and land use regulations can substitute for environmental review provides a useful model.

V. The Application Review Process and the Right to a Hearing

Guidance for the review of §404 permit applications[104] is provided by a complex set of unpublished documents.[105] These include memoranda of agreements between the two agencies,[106] and memoranda[107] and RGLs[108] issued by the Corps.[109] They are not formally adopted as regulations.[110] Guidance is also provided by elevation cases. These are cases elevated to Corps headquarters for decision from district offices, which have original jurisdiction to consider permit applications.[111] Most of the guidance in these

97. Highway J Citizens Group, U.A. v. U.S. Dep't of Transp., 656 F. Supp. 2d 868 (E.D. Wis. 2009).
98. NEPA Law and Litigation, *supra* note 8, ch. 12.
99. *Id.* §12:3.
100. 801 P.2d 1161 (Cal. 1990). Following *Goleta*: Citizens for Open Gov't v. City of Lodi, 140 Cal. Rptr. 3d 459 (Cal. Ct. App. 2012) (big box retail development); Jones v. Regents of the Univ. of Cal., 108 Cal. Rptr. 3d 6, 40 ELR 20117 (Cal. Ct. App. 2010) (campus laboratory development plan); Mira Mar Mobile Cmty. v. City of Oceanside, 14 Cal. Rptr. 3d 308 (Cal. Ct. App. 2004) (proposed project consistent with city's existing plans, policies, and zoning). *See* Timothy A. Tosta et al., *How* Citizens of Goleta Valley v. Board of Supervisors *Changed the California Environmental Review Process*, 26 Sw. U. L. Rev. 57 (1996); Timothy A. Tosta, *Environmental Review After* Goleta, 21 Sw. U. L. Rev. 1079 (1992). *See also* Calverton Manor, LLC v. Town of Riverhead, No. 4714/05, 2018 WL 1833202, at *2 (N.Y. App. Div. Apr. 18, 2018) (reliance on generic impact statements prepared in connection with comprehensive plan satisfied procedural and substantive requirements of state environmental policy act).
101. Zoning ordinances do not require a consideration of alternate sites, but a review of alternate sites can occur in the preparation of comprehensive plans. The classic explanation of the planning process is Martin Myerson & Edward C. Banfield, Politics, Planning, and the Public Interest: The Case of Public Housing in Chicago 303-29 (1964).
102. *Goleta*, 801 P.2d at 1173.
103. *E.g.*, Wash. Rev. Code Ann. §43.21C.240 (2018). The law provides that the local government must "consider[ ] the specific probable adverse environmental impacts of the proposed action and determine[ ] that these specific impacts are adequately addressed by the development regulations or other applicable requirements of the comprehensive plan, subarea plan element of the comprehensive plan, or other local, state, or federal rules or laws." *Id.* §43.21C.240(2)(a). The local government must base its approval on compliance with these requirements. *Id.* §43.21C.240(2)(b).

    Model legislation proposed by the American Planning Association includes a similar statute limited to comprehensive plans. Growing Smart Legislative Guidebook, *supra* note 81, §12-101, Alternative 3. The comprehensive plan must have "1. considered the significant environmental impacts of the land-use action and its alternatives; and 2. designates environmental thresholds, levels of public service, land-use designations and development standards." *Id.* §12-101(4). *See* Daniel R. Mandelker, *Melding State Environmental Policy Acts With Land-Use Planning and Regulations*, 49 Land Use L. & Zoning Dig. 3-11 (1997).
104. *See* Avoidance, *supra* note 37, at 2-3 (discussing Corps procedures for processing individual permits).
105. *See* Want, *supra* note 24, §2:9.
106. For an example, see Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines, 55 Fed. Reg. 9211 (Mar. 12, 1990).
107. *E.g.*, Updated Standard Operating Procedures, *supra* note 51.
108. The Corps describes RGLs as follows:

    > Regulatory Guidance Letters (RGLs) were developed by the Corps as a system to organize and track written guidance issued to its field agencies. RGL's are normally issued as a result of evolving policy, judicial decisions and changes to the Corps regulations or another agency's regulations which affect the permit program. RGL's are used only to interpret or clarify existing Regulatory Program policy but do provide mandatory guidance to the Corps district offices. RGL's are sequentially numbered and expire on a specified date. However, unless superseded by specific provisions of subsequently issued regulations or guidance, the content provided in RGL's generally remains valid after the expiration date.

    U.S. Army Corps of Engineers, *Regulatory Guidance Letters*, http://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Guidance-Letters/ (last visited Aug. 12, 2018). RGLs are no longer published in the *Federal Register*. *See* Los Angeles District Interview, *supra* note 90 (earliest RGL still considered good guidance is from 1983).
109. *E.g.*, Regulatory Guidance Letter 95-01, Guidance on Individual Permit Flexibility for Small Landowners (Mar. 31, 1995), https://www.epa.gov/cwa-404/memorandum-individual-permit-flexibility-small-landowners; Regulatory Guidance Letter 93-02, Guidance on Flexibility of the 404(b)(1) Guidelines and Mitigation Banking, 58 Fed. Reg. 47719 (Sept. 10, 1993).
110. Northwest Bypass Group v. U.S. Army Corps of Eng'rs, 552 F. Supp. 2d 97, 120 (D.N.H. 2008) (RGLs not legally binding).
111. Los Angeles District Interview, *supra* note 90. Elevation decisions are authorized by 33 U.S.C. §1344(q) (Secretary of the Army and Administrator

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cases is provided by a few decisions from the late 1980s and early 1990s.[112]

The Corps has a substantial volume of individual permits, up to 3,000 in a fiscal year.[113] Because the Corps applies a complex set of criteria to applications for these permits, the hearings on these applications are quasi-judicial and require quasi-judicial hearings[114] so testimony can be taken and a decision record created.[115] The vast number of permit decisions makes quasi-judicial procedures for each decision impracticable, however, and the courts hold that Corps procedures are not formal adjudications that require an evidentiary hearing to meet procedural due process requirements.[116]

Corps decision procedures recognize this problem. They do not make a public hearing mandatory, but provide an option to allow a hearing when the agency believes it is necessary.[117] Corps regulations state that a hearing shall be held "unless the district engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing,"[118] and that a hearing shall be held "in case of doubt."[119] A Corps memorandum also provides that the district engineer can require a hearing "when a hearing would provide additional information that is necessary for a thorough evaluation of pertinent issues but is not otherwise available."[120] These directives are stated both negatively and positively, and are indefinite enough to allow substantial opportunities for interpretation.[121] The cases have upheld Corps denials of hearings by holding that the decision whether to have a public hearing is discretionary.[122]

When a hearing is not held, the decision on an application is made through an informal adjudicative process that is not conducted under trial-type procedures.[123] Preapplication meetings are encouraged.[124] The district engi-

of EPA can enter into an agreement assuring that delays in the issuance of permits under §404 are minimized). A memorandum of agreement provides procedures. Clean Water Act Section 404(q) Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army (Aug. 11, 1992), https://www.epa.gov/cwa-404/clean-water-act-section-404qmemorandum-agreement.

112. Los Angeles District Interview, *supra* note 90. For a list of elevation letters and links to individual letters, see U.S. EPA, *Section 404 of the Clean Water Act—Chronology of 404(q) Actions*, https://www.epa.gov/cwa-404/chronology-404q-actions (last updated Dec. 1, 2017). Some of the elevation cases usually cited include Old Cutler Bay Associates (1990) (project purpose too specific), https://www.epa.gov/sites/production/files/2015-05/documents/2006_04_19_wetlands_cutlerbayguidance.pdf, and Plantation Landing Resort, Inc. (1989) (applying guidelines and holding analysis inadequate), https://www.nrc.gov/docs/ML1308/ML13080A201.pdf. *See also* Potash Corporation of Saskatchewan Phosphate Division, Aurora Operation (2009) (requiring additional measures for impacts in some headwater areas), https://www.epa.gov/sites/production/files/2015-05/documents/final-reply-to-epa-2_1.pdf. *See* Center for Biological Diversity v. U.S. Army Corps of Eng'rs, CV 14-1667 PSG (CWx), 2015 WL 12659937, at *10 (C.D. Cal. June 30, 2015) (distinguishing Hartz Mountain and Old Cutler Bay elevations in upholding statement of project purpose), *aff'd sub nom*. Friends of the Santa Clara River v. U.S. Army Corps of Eng'rs, 887 F.3d 906, 48 ELR 20054 (9th Cir. 2018); Florida Clean Water Network, Inc. v. Grosskruger, 587 F. Supp. 2d 1236, 1245 (M.D. Fla. 2008) (citing Hartz Mountain elevation in approving statement of project purpose).

113. *See supra* note 51 and accompanying text.

114. For discussion of the legislative versus quasi-judicial distinction in zoning, see KOB-TV, L.L.C. v. City of Albuquerque, 111 P.3d 708, 716 (N.M. Ct. App. 2005). For discussion of cases accepting and rejecting the quasi-judicial view in zoning, see Philip L. Fraietta, *Contract and Conditional Zoning Without Romance: A Public Choice Analysis*, 81 Fordham L. Rev. 1923, 1932-36 (2013).

115. For model legislation with quasi-judicial procedures for land use decisions, see Growing Smart Legislative Guidebook, *supra* note 81, at 10-1 to 10-90.

116. Buttrey v. United States, 690 F.2d 1170, 13 ELR 20085 (5th Cir. 1982), *cert. denied*, 461 U.S. 927 (1983); Water Works & Sewer Bd. of the City of Birmingham v. U.S. Dep't of Army, Corps of Eng'rs, 983 F. Supp. 1052, 1062 (N.D. Ala. 1997), *aff'd sub nom. without opinion*, Water Works v. U.S. Army Corps of Eng'rs, 162 F.3d 98 (11th Cir. 1998); National Wildlife Fed'n v. Marsh, 568 F. Supp. 985, 991, 13 ELR 20738 (D.D.C. 1983); Shoreline Assocs. v. Marsh, 555 F. Supp. 169, 174, 13 ELR 20421 (D. Md. 1983), *aff'd*, 725 F.2d 677, 14 ELR 20269 (4th Cir. 1984). *Accord* Taylor v. District Eng'r, U.S. Army Corps of Eng'rs, Jacksonville, Fla., 567 F.2d 1332, 1337, 8 ELR 20194 (5th Cir. 1978) (Rivers and Harbors Act). *See also* AJA Assocs. v. Army Corps of Eng'rs, 817 F.2d 1070, 1073, 17 ELR 20657 (3d Cir. 1987) (no entitlement to informal hearing after permit denial when applicant did not request hearing during comment period); Hough v. Marsh, 557 F. Supp. 74, 80, 13 ELR 20610 (D. Mass. 1982) (remand with directions to hold public hearing).

The *Buttrey* court did not find legislative authority that required a hearing. It dismissed the procedural due process claim by applying the three factors adopted in the leading Supreme Court case, *Mathews v. Eldridge*, 424 U.S. 319 (1976). The developer's private interest was diminished because the Corps was only denying a permit, not revoking a benefit. The administrative burden of a hearing would be unbearable considering the number of permits processed annually. Corps procedures provided considerable protection, and trial-type proceedings would not reduce the risk of error.

An unresolved due process question is whether "new property" rights apply to one whose application for a benefit has been refused, as opposed to one whose current benefits are being revoked, as in *Mathews*. The Court has repeatedly reserved this question, but *American Manufacturers Mutual Insurance Co. v. Sullivan*, 526 U.S. 40 (1999), takes a negative position in a limited context, with Justice Ruth Bader Ginsburg trying, in a concurring opinion, to confine the holding to that context.

117. Fund for Animals, Inc. v. Rice, 85 F.3d 535, 545, 26 ELR 21433 (11th Cir. 1996) ("regulations provide the Corps discretion to hold hearings on permit applications on an 'as needed' basis").

118. 33 C.F.R. §325(b) (2018). *See also id*. §325.2(a)(5) ("The district engineer will also evaluate the application to determine the need for a public hearing pursuant to 33 CFR part 327.").

119. *Id*. §325(c).

120. Updated Standard Operating Procedures, *supra* note 51, ¶ 15. The district engineer is to consider three factors when making this decision, including "whether the issues identified are already addressed by comments submitted in response to the public notice." He or she is also to "consider alternate means of obtaining necessary information, such as public meetings or workshops."

121. *Hough*, 557 F. Supp. at 79 (factual issue raised need for hearing).

122. *Fund for Animals, Inc.*, 85 F.3d at 545; Water Works & Sewer Bd. of the City of Birmingham v. U.S. Dep't of Army, Corps of Eng'rs, 983 F. Supp. 1052, 1058 (N.D. Ala. 1997), *aff'd sub nom. without opinion*, Water Works v. U.S. Army Corps of Eng'rs, 162 F.3d 98 (11th Cir. 1998).

123. Definitions vary, but "[t]he traditional answer is that 'informal adjudication' meant any form of adjudication other than 'formal adjudication,' i.e., adjudication conducted under the trial-type procedures of the [Administrative Procedure Act] APA, 5 U.S.C. §§554, 556, 557." Ronald M. Levin & Jeffrey S. Lubbers, Administrative Law and Process in a Nutshell 169-202, 247, 250 (6th ed. 2017) (discussing informal administrative process and noting that agency adjudications conducted outside the APA framework for formal adjudication are commonly called informal). See also Administrative Conference of the United States Recommendation 2016-4, Evidentiary Hearings Not Required by the Administrative Procedure Act, 81 Fed. Reg. 94312, 94314 (Dec. 23, 2016) (adopting three hearing levels depending on formality of hearing); Administrative Conference of the United States, Evidentiary Hearings Outside the Administrative Procedure Act (2016), available at https://www.acus.gov/sites/default/files/documents/adjudication-outside-the-administrative-procedure-act-final-report_0.pdf.

124. Updated Standard Operating Procedures, *supra* note 51, ¶ 3. They "can help streamline the permit process by alerting the applicant to potentially time-consuming concerns that are likely to arise during the evaluation of their project." They are not for minor impact projects. *See* Telephone Interview with Michael S. Rolband, Wetland Studies and Solutions, Inc. (Aug. 17,

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neer will give public notice[125] of an application once it is complete,[126] and comments on the application are considered along with any response from the applicant.[127] This process includes formal and informal elements and requires subjective decisions.[128] Issues concerning alternatives are usually resolved so that a project can be approved.[129] Judicial appeals are to a federal district court,[130] which does not conduct a trial de novo but reviews the decision on the administrative record to decide if it was arbitrary and capricious.[131] The standard of judicial review is deferential.[132]

Interviews were conducted in the preparation of this Article with consultants, lawyers, and environmental organizations active in the §404 program and with Corps staff.[133] They reported that a public hearing is not held when projects are small.[134] A public hearing is held at the discretion of the district engineer if there is substantial controversy[135]; hearings are informal. Supporters and objectors speak, and there is no Corps response.[136] This system creates an informal tiered structure, in which only the larger and more controversial projects may get a hearing.

Corps regulations require findings. The district engineer must prepare a statement of findings (SOF) that "shall include the district engineer's views on the probable effect of the proposed work" on the §404 guidelines and other regulations that apply, and the district engineer's conclusions.[137] Explanation of responses to issues is not required, but responses are required if the document is a NEPA document. SOFs examined by this author were adequate.[138] They were about 100 pages, referenced guidelines and requirements that apply, and contained lengthy presentations of fact and detailed explanations of alternatives.

Quasi-judicial hearings require disciplined procedures. Model legislation for planning and zoning prepared by the American Planning Association is an example. It requires quasi-judicial procedures, including a noticed hearing on the record and findings of fact.[139] Quasi-judicial decisions must be based on a written statement that states the relevant land development regulations and comprehensive plan goals, policies, and guidelines; states the facts relied on in making the decision; and explains how the decision is based on the facts and these documents and the response to these issues.[140]

This legislation provides a model for hearing procedures on §404 permits, but quasi-judicial hearings need not be held on every permit application. An option for the Corps is a formal tiered hearing system like that adopted by some municipalities for deciding whether and what kind of a hearing should be held on zoning changes. They are classified by type, and the system details hearing requirements for each type of change that vary depending on the complexity of the change.[141] An administrative process is available for less complex changes as an alternate procedure[142] that is similar to the Corps process when a hearing is not held.[143]

2017) [hereinafter Rolband Interview] (pre-application meeting used to get input from Corps and refine issues).

125. 33 C.F.R. §§325.2(a)(2), 325.3 (2018).
126. Updated Standard Operating Procedures, *supra* note 51, ¶ 9. *See* 33 C.F.R. §325.1(d)(1)-(10) (2018), listing the requirements for a complete application.
127. 33 C.F.R. §325.2(a)(6) (2018).
128. E-mail from Aaron Allen, Chief, North Coast Branch, Los Angeles District Regulatory Division, U.S. Army Corps of Engineers, to the author (Aug. 30, 2017) [hereinafter Allen E-mail].
129. Los Angeles District Interview, *supra* note 90 (few denials because most applicants accept project modifications); Telephone Interview with Dr. W. Michael Dennis, Breedlove, Dennis & Associates, Inc. (Aug. 15, 2017) [hereinafter Dennis Interview]; Devine Interview, *supra* note 50; Headquarters Interview, *supra* note 50 (modifications reduce environmental impact 100% of the time); Rolband Interview, *supra* note 124. *See* Florida Keys Citizens Coal., Inc. v. U.S. Army Corps of Eng'rs, 374 F. Supp. 2d 1116, 1153 (S.D. Fla. 2005) (relying on modifications suggested by Corps in upholding approval).
130. Property owners may obtain a determination from the Corps that their property is subject to Corps jurisdiction. This decision is an appealable final decision. U.S. Army Corps of Eng'rs v. Hawkes Co., 136 S. Ct. 1807, 46 ELR 20102 (2016).
131. Fund for Animals, Inc. v. Rice, 85 F.3d 535, 541, 26 ELR 21433 (11th Cir. 1996); National Wildlife Fed'n v. Whistler, 27 F.3d 1341, 1344, 24 ELR 21609 (8th Cir. 1994); Town of Abita Springs v. U.S. Army Corps of Eng'rs, 153 F. Supp. 3d 894, 921 (E.D. La. 2015) (citing cases); Great Rivers Habitat Alliance v. U.S. Army Corps of Eng'rs, 437 F. Supp. 2d 1019, 1023 (E.D. Mo. 2006). *See* North Idaho Cmty. Action Network v. Hofmann, Civ. No. 08-181-N-EJL, 2009 WL 1076165, at *2 (D. Idaho Apr. 21, 2009) (may not consider information outside the administrative record).
132. *Fund for Animals, Inc.*, 85 F.3d at 541.
133. The interviews are referenced throughout the footnotes.
134. Los Angeles District Interview, *supra* note 90.
135. Headquarters Interview, *supra* note 50.
136. The Corps response is in the NEPA documents. *Id.*
137. 33 C.F.R. §325.2(a)(6) (2018). They also include the probable effect on the public interest and compliance with ocean dumping standards. If the decision is contrary to state and local decisions, the district engineer shall document the significant overriding national issues. If an environmental impact statement has been prepared, the district engineer shall prepare a record of decision instead of a statement of findings. *See also* Updated Standard Operating Procedures, *supra* note 51, ¶ 22 ("The decision document for the individual permit evaluation process is referred to as an Environmental Assessment/Statement of Findings or a combined decision document.").
138. Newhall Ranch Plan, *supra* note 1 (117 pages, on file with author); Environmental Assessment, 404(b)(1) Guidelines Evaluation, Public Interest Review, and Statement of Findings for the Park Place Project (Tract 60259) (95 pages, on file with author). Both projects are development projects in the Los Angeles District. *See* Bianca Barragan, *Huge Newhall Ranch Project in Santa Clarita Valley Finally Clears Major Hurdle*, Curbed L.A., Sept. 25, 2017, https://la.curbed.com/2017/9/25/16363842/newhall-ranch-santa-clarita-valley-housing-deal. Newhall Ranch is a major mixed-use project with 21,500 units.
139. Growing Smart Legislative Guidebook, *supra* note 81, ch. 10. The American Bar Association adopted a model law based on the American Planning Association model that was proposed by a joint task force of the State and Local Government and Administrative Law and Regulatory Practice Sections. Model Statute on Local Land Use Process (2008), *available at* http://law.wustl.edu/landuselaw/ModelLandUseCode.pdf.
140. Growing Smart Legislative Guidebook, *supra* note 81, §10-207(9)(b). A similar requirement applies to administrative decisions. *Id.* §10-204(4).
141. Oregon municipalities, which must use quasi-judicial procedures, have adopted this system. *See, e.g.*, Portland, Or., Zoning Code §§33.730.013-33.730.031 (2018), https://www.portlandoregon.gov/bps/article/53468. The procedures "provide the City with options when assigning procedures to each quasi-judicial review in this Title." *Id.* §33.731.010.
142. *Id.* §33.730.025. The department director "may consult with the owner, applicant, other citizens, City agencies, and other public and private organizations to solicit information relevant to the request. The decision is based on the [director's findings], which are based on an evaluation of the facts and the applicable code regulations." *Id. See also id.* §227.175(10) (decision without hearing procedures).
143. Model legislation for quasi-judicial decisions proposed by the American Planning Association includes authority for a similar alternate administrative review. Growing Smart Legislative Guidebook, *supra* note 81, §10-204. The legislation authorizes participation by the applicant and interested persons and organizations.

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VI. The Project Purpose Requirement

A. The Requirement

The first step in the application review process is to decide on a project's purpose, as this decision determines the range of alternatives to be considered.[144] This requirement distinguishes §404 reviews from decisionmaking under conventional land use regulation, such as zoning.[145] An applicant for a zoning change for a master-planned community, for example, does not have to explain its purpose and why it is needed. A similar purpose and need statement is required by NEPA, which will apply to a §404 permit if NEPA applies.

Purpose and need requirements under the two statutes differ and serve different functions, as NEPA requires only the disclosure of environmental effects and does not require compliance with substantive standards.[146] Council on Environmental Quality regulations for NEPA only require environmental impact statements to "briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action."[147] Courts concentrate on whether the purpose and need statement is too broad or too narrow, and it must not be so narrow that it excessively restricts the number of alternatives to be considered.[148]

For §404 projects, Corps regulations recognize that an applicant can use its project purpose as the basis for the purpose statement. They provide that an "applicant should be encouraged to provide a statement of his proposed activity's purpose and need from his perspective," though they also state that, whenever appropriate, the Corps shall consider "underlying purpose and need from a public interest perspective."[149] They also state that "while generally focusing on the applicant's statement," the Corps should exercise independent judgment in defining purpose and need "from both the applicant's and the public's perspective."[150]

EPA guidelines for §404 make a distinction that is not entirely clear between overall project purpose, which is used to identify and evaluate project alternatives,[151] and basic project purpose, which provides limited project details[152] for deciding whether a project is water-dependent.[153] Overall project purpose will include more details about the specific project, but will not be so specific that it unreasonably limits the evaluation of alternatives.

A Corps memorandum elaborates on this distinction. An applicant's specific needs and the type of project are to be considered for overall project purposes. They should not define the applicant's needs so restrictively that they limit the range of alternatives that must be considered.[154] The Corps district office is responsible for defining basic project purpose,[155] which determines whether a project needs water dependency that requires "access or proximity to, or siting within, a special aquatic site in order to fulfill its basic purpose."[156] A wetland is one of several types of special aquatic sites.

As one SOF put it, basic project purpose is "the fundamental, essential, or irreducible purpose of the proposed project."[157] For example, the basic project purpose for an apartment project would be housing,[158] which is not water-dependent.[159] The overall project purpose might be to meet the housing needs of the region. This purpose allows consideration of alternatives that include a variety of housing types, such as single-family housing or housing in a mixed-use development. Alternate sites could also be considered.

B. Case Law

The cases have allowed the Corps to accept an applicant's project purpose as the project purpose required under §404, though it is not always clear which purpose is being considered. As one court of appeals explained in a much-quoted case that considered a basic purpose, "it would be

144. League of Wilderness Defenders-Blue Mountain Biodiversity Project v. Bosworth, 383 F. Supp. 2d 1285 (D. Or. 2005) (stating that the purpose and need statement dictates the range of reasonable alternatives).

145. Questions about purpose can arise in states where a zoning change must be consistent with a comprehensive plan. Courts will examine whether project purposes are consistent with plan policies. A requirement that zoning must be consistent with a comprehensive plan is a minority view. Edward J. Sullivan & Matthew J. Michel, Ramapo *Plus Thirty: The Changing Role of the Plan in Land Use Regulation*, 35 Urb. Law. 75, 75 (2003); Edward J. Sullivan, *The Evolving Role of the Comprehensive Plan*, 32 Urb. Law. 813, 822-23 (2000) (noting trend toward accepting plan as criterion for evaluating land use regulations and actions).

146. *See supra* Part III.A.

147. 40 C.F.R. §1502.13 (2018). A similar requirement applies to environmental assessments. *Id*. §1508(9)(b).

148. The court in *Citizens Against Burlington* found:

> Yet an agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action, and the EIS would become a foreordained formality. [Citing case] Nor may an agency frame its goals in terms so unreasonably broad that an infinite number of alternatives would accomplish those goals and the project would collapse under the weight of the possibilities.

Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 196, 21 ELR 21142 (D.C. Cir. 1991).

There is substantial case law on this issue. *See* NEPA Law and Litigation, *supra* note 8, §9.26. *See also* Larry W. Canter, Guidance Related to the Purpose and Need Section of an EIS (2007) (prepared for Northeast Regional Office, NOAA Fisheries, Gloucester, Massachusetts) (on file with author).

149. 33 C.F.R. pt. 325, app. B, §9(b)(2) (2018).

150. *Id. See* Sierra Club v. Van Antwerp, 362 Fed. Appx. 100, 105, 40 ELR 20025 (11th Cir. 2010) ("The Corps defines a project's basic purpose.").

151. 40 C.F.R. §230.10(a)(2) (2018).

152. *See* Allen E-mail, *supra* note 128 ("basic project purpose is a very simple characterization of the project").

153. 40 C.F.R. §230.10(a)(3) (2018).

154. Updated Standard Operating Procedures, *supra* note 51, ¶ 12. *See* Old Cutler Bay Associates, *supra* note 112 (purpose defined too restrictively).

155. Updated Standard Operating Procedures, *supra* note 51, ¶ 12. *See* Plantation Landing Resort, Inc., *supra* note 112 (affirming Corps responsibility).

156. Updated Standard Operating Procedures, *supra* note 51, ¶ 12.

157. Park Place Project, *supra* note 138, at 1. *See* City Club of N.Y. v. U.S. Army Corps of Eng'rs, 246 F. Supp. 3d 860, 870 (S.D.N.Y. 2017) (findings defined basic project purpose in identical terms).

158. *See* Newhall Ranch Plan, *supra* note 1, at 2-3. The overall project purpose for this project is considerably more detailed than the purpose and need statement prepared for NEPA compliance, which may only be a sentence or a short paragraph.

159. Updated Standard Operating Procedures, *supra* note 51, ¶ 12.

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bizarre if the Corps were to ignore the purpose for which the applicant seeks a permit and to substitute a purpose it deems more suitable."[160] Courts even hold the Corps has a duty to take the objectives of the applicant's project into account,[161] though the Corps must consider project purpose independently.[162]

The courts have also considered what statements of basic and overall project purpose should include. Basic project purpose is prepared first, but cannot be so specific that it makes water dependency self-evident. This happened in a district court case, where basic project purpose was improperly defined as "provid[ing] a vegetated pier platform within Hudson River State Park with an amphitheater and public restrooms; and to continue to provide safe public access pier structures within Hudson River State Park."[163] Instead, the administrative record consistently stated that the primary project goals were to provide additional public park and performance space, which are not water-dependent.[164] Early Corps headquarters elevation decisions also rejected narrow statements of basic purpose,[165] but there is judicial authority accepting a detailed statement of basic purpose like the purpose disapproved in the Hudson River State Park case.[166]

Once basic project purpose is decided, practicable alternatives are analyzed considering a project's overall purpose, "which is more particularized to the applicant's project than is the basic purpose and reflects the various objectives the applicant is trying to achieve."[167] District court cases reviewing statements of overall project purpose deferred to Corps decisions. They accepted detailed statements that identified the location of a project and described its character.[168] An example is an overall project purpose that described the detail and location of a major master-planned community.[169] Statements of purpose with this kind of detail limit the consideration of alternatives because they eliminate any alternative that does not meet the applicant's project objective.

Case law that has considered a similar requirement for purpose and need statements under NEPA is divided on how restrictive these statements can be.[170] Some courts take the view adopted under §404, and accept a statement of purpose and need based on an applicant's project objectives.[171] Other courts are more demanding, and reject statements of purpose and need that courts would accept under

160. Louisiana Wildlife Fed'n, Inc. v. York, 761 F.2d 1044, 1048, 15 ELR 20614 (5th Cir. 1985) (per curiam) (footnote omitted).

161. *Id.*

162. Alameda Water & Sanitation Dist. v. Reilly, 930 F. Supp. 486, 492, 26 ELR 21526 (D. Colo. 1996).

163. City Club of N.Y. v. U.S. Army Corps of Eng'rs, 246 F. Supp. 3d 860, 870 (S.D.N.Y. 2017). *Accord* Schmidt v. U.S. Army Corps of Eng'rs, No. 2:08-cv-0076, 2009 WL 579412, at *14 (W.D. Mich. Mar. 5, 2009) (basic purpose is construction of a residential home, not a home with a view of the water).

164. *Compare* Delaware Riverkeeper Network v. U.S. Army Corps of Eng'rs, 869 F.3d 148, 157-58 (3d Cir. 2017) (interstate pipeline project; claim that basic purpose was too narrow rejected because project's basic purpose did not delimit agency's alternatives analysis). *See also* National Wildlife Fed'n v. Whistler, 27 F.3d 1341, 1345-46, 24 ELR 21609 (8th Cir. 1994) (noting project defined as providing boat access to water was water-dependent).

165. Old Cutler Bay Associates, *supra* note 112, at 7 (housing development; "information includes specific numbers of units (428), which is inappropriate for a statement of basic purpose" used to evaluate alternatives); Plantation Landing Resort, Inc., *supra* note 112, at 4 ("fully-integrated, waterfront, contiguous water-oriented recreational complex").

166. *Louisiana Wildlife Fed'n, Inc.*, 761 F.2d at 1047 ("to increase soybean production or to increase net return on assets owned by the company"). *See also accord* Sylvester v. U.S. Army Corps of Eng'rs, 882 F.2d 407, 409, 19 ELR 21348 (9th Cir. 1989) (statement in environmental assessment: "To construct an 18-hole, links style, championship golf course and other recreational amenities in conjunction with the development of the proposed Resort at Squaw Creek. Research conducted for the applicant has indicated that a quality 18-hole golf course is an essential element for a successful alpine destination resort.").

167. Florida Clean Water Network, Inc. v. Grosskruger, 587 F. Supp. 2d 1236, 1243 (M.D. Fla. 2008). For examples of acceptable overall project purposes, see Fort Worth District—Regulatory Division, Preparing an Alternatives Analysis Under Section 404 of the Clean Water Act 2-5 (2014) [hereinafter Preparing an Alternatives Analysis], *available at* https://www.swf.usace.army.mil/Portals/47/docs/regulatory/Handouts/Preparing_An_Alternatives_%20Analysis.FINAL.pdf.

168. Center for Biological Diversity v. U.S. Army Corps of Eng'rs, CV 14-1667 PSG (CWx), 2015 WL 12659937, at *9 (C.D. Cal. June 30, 2015) (major master-planned community, "defining the Project purpose to include the elements of interrelated villages and adherence to the basic objectives of the Specific Plan"), *aff'd sub nom*. Friends of the Santa Clara River v. U.S. Army Corps of Eng'rs, 887 F.3d 906, 48 ELR 20054 (9th Cir. 2018); Town of Abita Springs v. U.S. Army Corps of Eng'rs, 153 F. Supp. 3d 894, 921 (E.D. La. 2015) ("Corps properly considered Helis's objective 'to obtain geologic data to confirm the production potential of a very specific subsurface geologic zone which Helis has identified as a potentially significant source of previously undeveloped mineral resources.'"); Gouger v. U.S. Army Corps of Eng'rs, 779 F. Supp. 2d 588, 603-04 (S.D. Tex. 2011) (project defined as "residential homes" along the Gulf Intracoastal Waterway); National Wildlife Fed'n v. Souza, No. 08-141 15-CI, 2009 WL 3667070, at *20 (S.D. Fla. Oct. 23, 2009) (overall project purpose was "to construct an economically upscale residential community with two 18-hole golf courses and associated amenities in northern Collier County"); *Florida Clean Water Network, Inc.*, 587 F. Supp. 2d at 1242 ("Development of air transportation facilities, which would meet Federal Aviation Administration (FAA) safety and design standards, which could operate and grow to allow future opportunities for expansion of air transportation services, including international charter operations"); Great Rivers Habitat Alliance v. U.S. Army Corps of Eng'rs, 437 F. Supp. 2d 1019, 1026-27 (E.D. Mo. 2006) (overall project purpose apparent but not stated; "[t]he purpose and need of the project is to construct a new levee providing flood protection to a proposed development area known as Lakeside Business Park . . . for the creation of a new mixed-use development area that would include office/warehouse, manufacturing, office, dining/entertainment, hotel/conference, cultural and recreational uses."); Alliance for Legal Action v. U.S. Army Corps of Eng'rs, 314 F. Supp. 2d 534, 550 (M.D.N.C. 2004) (can define purpose of air cargo hub so it will attract an identified tenant); Northwest Envtl. Def. Ctr. v. Wood, 947 F. Supp. 1371, 1377, 27 ELR 20668 (D. Or.), *aff'd*, 97 F.3d 1460 (9th Cir. 1996) (project purpose was to "develop a large semiconductor fabrication plant in the Eugene area"); Stewart v. Potts, 996 F. Supp. 668, 675-76 (S.D. Tex. 1998) (purpose was to build a golf course within the city of Lake Jackson).

169. *Center for Biological Diversity*, 2015 WL 12659937, at *9, *aff'd sub nom*. Friends of the Santa Clara River v. U.S. Army Corps of Eng'rs, 887 F.3d 906, 48 ELR 20054 (9th Cir. 2018).

170. NEPA Law and Litigation, *supra* note 8, §§9:26-9:30.

171. *E.g.*, Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 196, 21 ELR 21142 (D.C. Cir. 1991) (airport proposal). *Accord* Theodore Roosevelt Conservation P'ship v. Salazar, 661 F.3d 66 (D.C. Cir. 2011) (expansion of oil and gas drilling; appropriate for agency to choose its goal simply by addressing lessees' proposal, and then choose whether to approve the request, reject it, or approve it with conditions). Environmental Prot. Info. Ctr. v. U.S. Forest Serv., 234 Fed. Appx. 440 (9th Cir. 2007) (forest-thinning project). *See also* Vermonters for a Clean Env't, Inc. v. Madrid, 73 F. Supp. 3d 417, 45 ELR 20007 (D. Vt. 2014) (upholding purpose and need statement for wind farm project in national forest even though agency took into account proposal of applicant for special use permit, which included a specific site); Coalition for Advancement of Reg'l Transp. v. Federal Highway Admin., 959 F. Supp. 2d 982 (W.D. Ky. 2013) (agency properly considered both needs and goals of parties and broadly conceived need for cross-river mobility in defining purpose and need for bridge construction program).

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§404. In a leading case, for example, the U.S. Court of Appeals for the Seventh Circuit rejected the Corps definition of a project's purpose and need as the creation of a single water supply for the city and a water district.[172] It improperly restricted the project to a single site.

An intermediate approach some courts take under NEPA is more flexible. The U.S. Court of Appeals for the Tenth Circuit, for example, does not find either of the opposing views mutually exclusive or conflicting. Agencies are simply to take responsibility for defining an action's objectives and then legitimately consider alternatives that fall between the two extremes.[173] Another circuit allowed consideration of an applicant's needs and goals because the agency conducted its own searching inquiry into the purposes and needs of the dam site.[174] The holdings in these cases, if applied to §404, would allow a more realistic consideration of alternatives.

Revised guidelines should change the purpose and need requirement for §404 to eliminate reliance on an applicant's project objectives. Project purpose should not be limited to the proposed project and its site, but should instead identify the development objectives the project is expected to achieve. The requirement for both an overall and basic project purpose is not necessary and should be eliminated.

VII. Applying the Practicable Alternatives Requirement

A. *Water Dependency*

Once project purpose has been determined, the next issue for true waterfront uses is whether a project is water-dependent. This determination is critical, because a presumption applies that alternatives are practicable if a project is not water-dependent.[175] Very little agency guidance is available on this question.[176] Case law is deferential. It accepts Corps decisions[177] that follow a Corps guidance[178] that housing is not water-dependent. The decisions find water dependency for projects that require water access.[179]

B. *The Permit Application Review Process*

EPA guidelines and Corps documents counsel flexibility.[180] The guidelines state that "compliance evaluation procedures will vary to reflect the seriousness of the potential for adverse impacts on the aquatic ecosystems posed by specific dredged or fill material discharge activities."[181] RGLs provide similar advice.[182]

Permit applications are reviewed in a three-step sequencing process required by a memorandum of agreement between the Corps and EPA.[183] Avoidance is the first step. It is satisfied by deciding whether a project is the LEDPA.[184] Minimization is next.[185] If practicable alter-

172. Simmons v. U.S. Army Corps of Eng'rs, 120 F.3d 664, 669, 27 ELR 21204 (7th Cir. 1997). *Accord* Van Abbema v. Fornell, 807 F.2d 633, 17 ELR 20429 (7th Cir. 1986) (dredge and fill permit for a facility to transload coal from trucks to barges on the Mississippi River); Anglers of the Au Sable v. U.S. Forest Serv., 565 F. Supp. 2d 812, 38 ELR 20179 (E.D. Mich. 2008) (Forest Service improperly limited range of alternatives considered to those that would meet oil and gas leaseholder's goals, rather than those that might better serve agency's goals).
173. Colorado Envtl. Coal. v. Dombeck, 185 F.3d 1162, 1174-75, 29 ELR 21406 (10th Cir. 1999).
174. Webster v. U.S. Dep't of Agric., 685 F.3d 411 (4th Cir. 2012). *See also* Protect Our Cmtys. Found. v. Jewell, 825 F.3d 571, 46 ELR 20106 (9th Cir. 2016) (where agency is tasked with deciding whether to issue a permit or license, the statement of purpose and need may include private goals alongside statutory policy objectives as a guide for determining the reasonableness of the objectives outlined in the statement).
175. Sierra Club v. Van Antwerp, 362 Fed. Appx. 100, 106, 40 ELR 20025 (11th Cir. 2010) (discussing requirement).
176. Guidelines for Specification of Disposal Sites for Dredged or Fill Material, *supra* note 40, at 85339 ("'Nonwater dependent discharges' are those associated with activities which do not require access or proximity to or siting within the special aquatic site to fulfill their basic purpose. An example is a fill to create a restaurant site."); Regulatory Guidance Letter 92-02, Water Dependency and Cranberry Production, 57 Fed. Reg. 32523 (July 22, 1992).
177. Smereka v. Glass, No. 89-72068, 1991 WL 188154 *6 (6th Cir. Sept. 24, 1991) ("the Corps implicitly rejected plaintiff's characterization that his proposal was water dependent when it concluded that '[p]racticable alternatives include selection of another site for home construction that is not a wetland or special aquatic site'"); Schmidt v. U.S. Army Corps of Eng'rs, No. 2:08-cv-0076, 2009 WL 579412, at *14 (W.D. Mich. Mar. 5, 2009) (basic purpose is construction of a residential home; plaintiff's desire for a specific view of the channel is incidental to the basic purpose); Korteweg v. Corps of Eng'rs of U.S. Army, 650 F. Supp. 603, 605 (D. Conn. 1986) (project not made unique for environmental purposes by including a slip for each residential unit for water access). *See also Sierra Club*, 362 Fed. Appx. at 106 (reversing Corps determination that extracting gravel is water-dependent).
178. *See supra* note 159 and accompanying text.
179. National Wildlife Fed'n v. Whistler, 27 F.3d 1341, 1345, 24 ELR 21609 (8th Cir. 1994) (boat access to a river); Friends of the Earth v. Hintz, 800 F.2d 822, 832, 17 ELR 20030 (9th Cir. 1986) (log storage activity related to export); Northwest Envtl. Def. Ctr. v. U.S. Army Corps of Eng'rs, 817 F. Supp. 2d 1290, 1308 (D. Or. 2011) (determination that gravel bar mining is water-dependent adequately supported by the record).
180. Los Angeles District Interview, *supra* note 90 (level of impact analysis depends on complexity; focus on most important wetlands, and what they do to the project).
181. 40 C.F.R. §230.10 (2018). Similar guidance is contained in *id*. §230.6(a), including a statement that "the manner in which these Guidelines are used depends on the physical, biological, and chemical nature of the proposed extraction-site, the material to be discharged, and the candidate disposal site, including any other important components of the ecosystem being evaluated." *See* Hillsdale Envtl. Loss Prevention, Inc. v. U.S. Army Corps of Eng'rs, 702 F.3d 1156, 1168 (10th Cir. 2012) (relying on minor to moderate impact of project in upholding rejection of alternatives); Greater Yellowstone Coal. v. Flowers, 359 F.3d 1257, 1271, 34 ELR 20019 (10th Cir. 2004) (applying these directives).
182. Regulatory Guidance Letter 93-02, *supra* note 109 (guidelines to not inhibit "inherent flexibility" in their application). The RGL also states that the guidelines "envision a correlation between the scope of the evaluation and the potential extent of adverse impacts on the aquatic environment." *Id*. The stringency of alternatives review can be adjusted for projects that have only minor impacts. *Id*. *See also* Updated Standard Operating Procedures, *supra* note 51, ¶ 19 ("compliance evaluation procedures will vary to reflect the seriousness of the potential for adverse effects on the aquatic ecosystem"); Regulatory Guidance Letter 95-01, *supra* note 109, at 1 (assumed alternatives on property not owned by applicant are not practicable for projects including construction or expansion of homes on nontidal wetlands less than two acres).
183. Memorandums of Agreement, *supra* note 41, §II.C. For discussion of district policies for avoidance and minimization, see Avoidance, *supra* note 37, at 17-23. *See* U.S. EPA, *Section 404 of the Clean Water Act—CWA Section 404 Mitigation*, https://www.epa.gov/cwa-404/cwa-section-404-mitigation (last updated Nov. 16, 2017).
184. This requirement is met through the practicable alternatives requirement.
185. A report based on interviews with federal regulators and the regulated community found that the minimization requirement was applied through a variety of minimization techniques and approaches depending on the type

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natives do not exist that can avoid dredging or filling or have a less adverse impact on wetlands, the next step is to consider whether "appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem."[186] Mitigation comes last.[187] "Appropriate and practicable compensatory mitigation is required for unavoidable adverse impacts that remain after all appropriate and practicable minimization has been required."[188]

These requirements potentially overlap. It is not clear that the Corps can consider minimization when it decides whether a project is the LEDPA, though it is arguable that considering minimization at that stage is not consistent with the sequencing directive.[189] Assume a development for a shopping center. An analysis shows that less damaging environmental alternatives are available. Should the developer at this stage be allowed to advance minimization proposals that diminish the impact of development on its wetlands so that an alternative need not be selected? Guidance is conflicting. There is some advice that they can be considered.[190] Contrary advice says they cannot be considered.[191] The interviews had different views on this issue.[192] The cases are mixed.[193]

C. Standards for Practicable Alternatives

EPA guidelines state that "[a]n 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."[194] Cost, existing technology, and logistics[195] are not defined. Technology is covered in an EPA regulation that includes several recommendations, such as using appropriate equipment or machinery and employing appropriate maintenance and operation on equipment or machinery.[196]

The cost factor opens the possibility that a developer's financial position or return on investment (ROI) can provide a basis for rejecting an alternative as impracticable even though it is less damaging to wetlands. Considering ROI should help an applicant because he or she has presumably selected a site that is the most promising financially. This issue was not clarified in the preamble to the EPA guidelines. It stated that overall scope/cost is to be considered, that the guidelines should not be interpreted to require consideration of an applicant's financial standing, investment, or market share,[197] but that an unreasonably

of project and the wetland involved. However, the regulated community was frustrated by the lack of standards. Standards had not been adopted, nor had there been much guidance on how to comply with the requirement for various project types. Environmental Law Institute, Wetland Avoidance and Minimization in Action: Perspectives From Experience 5-6 (2009) [hereinafter Perspectives From Experience], *available at* https://www.eli.org/sites/default/files/eli-pubs/d19_04.pdf.

186. 40 C.F.R. §230.10(d) (2018) ("[N]o discharge of dredged or fill material shall be permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem. Subpart H identifies such possible steps."). *See* Fund for Animals, Inc. v. Rice, 85 F.3d 535, 544, 26 ELR 21433 (11th Cir. 1996) (describing scaling down of project so that fewer wetlands will be lost).
187. Royal C. Gardner, *Mitigation*, *in* Wetlands Law, *supra* note 15, at 253.
188. Memorandums of Agreement, *supra* note 41, at 9212. *See* Compensatory Mitigation for Losses of Aquatic Resources, 73 Fed. Reg. 19594 (Apr. 10, 2008), codified in 33 C.F.R. pt. 332 (mitigation rule). The mitigation requirement implements a no-net-loss policy that is a national goal in wetlands protection. Memorandums of Agreement, *supra*, at 9212-13 ("such mitigation should provide, at a minimum, one for one functional replacement (i.e., no net loss of values), with an adequate margin of safety to reflect the expected degree of success associated with the mitigation plan"). *See* Institute for Water Resources, *supra* note 46 (discussing implementation of the mitigation rule). For a chart showing wetland acres permitted and mitigated, see *id*. at 27. *See* 40 C.F.R. §230.75 (2018) (specifying compensation techniques).
189. For a case taking this position, see Butte Envtl. Council v. U.S. Army Corps of Eng'rs, 620 F.3d 936, 946, 40 ELR 20144 (9th Cir. 2010). *See* Memorandums of Agreement, *supra* note 41, §C(1) ("Compensatory mitigation may not be used as a method to reduce environmental impacts in the evaluation of the least environmentally damaging practicable alternatives. . . .").
190. General Policies for Evaluating Permit Applications, 33 C.F.R. §320.4(r)(1) (2018) ("Consideration of mitigation will occur throughout the permit application review process and includes avoiding, minimizing, rectifying, reducing, or compensating for resource losses.") *See* Headquarters Interview, *supra* note 50 (can consider mitigation when considering an alternative).
191. Updated Standard Operating Procedures, *supra* note 51, at 19, stating that "[p]roposed compensatory mitigation is not considered during the evaluation of potentially practicable alternatives and mitigation may not be considered in lieu of impact avoidance and minimization." The procedures add that the guidelines prohibit discharges only "when a practicable alternative exists that would have less adverse effects on the environment, so long as the alternative does not have other significant adverse environmental consequences."
192. *Compare* Headquarters Interview, *supra* note 50 (mitigation considered in choosing alternative; compensation considered later), *and* Dennis Interview, *supra* note 129 (can bring mitigation upfront when discussing alternatives), *with* Telephone Interview with Peg Bostwick, Senior Policy Analyst, Association of State Wetlands Managers (Aug. 9, 2017) [hereinafter Bostwick Interview] (mitigation considered if impacts unacceptable).
193. *Compare* Town of Norfolk v. U.S. Army Corps of Eng'rs, 968 F.2d 1438, 1449, 22 ELR 21337 (1st Cir. 1992) (allowing consideration of mitigation measures to decide practicability), *with* Alameda Water & Sanitation Dist. v. Reilly, 930 F. Supp. 486, 492, 26 ELR 21526 (D. Colo. 1996) (upholding EPA decision contra). *See Butte Envtl. Council*, 620 F.3d at 946 (Corps did not consider mitigation when making alternatives decision).
194. 40 C.F.R. §230.10(a)(2) (2018). This requirement is intended to be broader than the consideration of alternatives under NEPA and the public interest review required under Corps regulations. Guidelines for Specification of Disposal Sites for Dredged and Fill Material: Supplementary Information, 49 Fed. Reg. 54222, 54224 (Sept. 18, 1979). Once the LEDPA has been selected, there must be findings stating whether there is compliance with the guidelines. 40 C.F.R. §230.12 (2018). *See* Utahns for Better Transp. v. U.S. Dep't of Transp., 305 F.3d 1152, 1186 (10th Cir. 2002), *as modified on reh'g*, 319 F.3d 1207 (10th Cir. 2003) ("test is not whether a proposed project is 'better' than an alternative with less wetlands impact because it would cost less and have less impact on existing and future development").

    Elevation decisions provide some guidance on practicability. *E.g.*, Petro Star/Port Valdez Elevation at 3 (1993) (holding that the Corps can reject a proposal an applicant considers attractive), *available at* https://www.epa.gov/sites/production/files/2015-05/documents/2006_04_20_wetlands_petro-starelevationrequest.pdf.
195. *See* Preparing an Alternatives Analysis, *supra* note 167, at 7-8 (describing these requirements as explained in the text). An undated PowerPoint presentation on alternatives analysis prepared by the Jacksonville District states that logistics encompasses "placement of facilities within a required distance, utilization of existing storage or staging areas, safety concerns." Examples presented are a landlocked parcel that cannot be accessed by public roads or easement, and a site that is too small to meet the overall project purpose. The PowerPoint is available at http://www.saj.usace.army.mil/Portals/44/docs/regulatory/News/4_Alternatives%20Analysis.pdf.
196. 40 C.F.R. §230.74 (2018). *See also* Preparing an Alternatives Analysis, *supra* note 167 (suggesting engineered retaining walls that minimize wetlands impacts by eliminating fill slopes as an example).
197. Guidelines for Specification of Disposal Sites for Dredged or Fill Material, *supra* note 40, at 85339.

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expensive alternative would not be practicable.[198] An RGL adds that an applicant's financial standing is not the primary consideration, but that an expense is generally unreasonable if projected cost is substantially greater than the costs normally associated with a project.[199]

These guidance policies do not clearly indicate how the three factors identified in the guidelines should be applied in an alternatives analysis.[200] The interviews indicated that technology issues are not usually important,[201] and that cost issues can be difficult.[202] They report that developers provide financial analysis,[203] but it is not clear that a developer can argue for a minimum ROI.[204] When this option is allowed, a developer may set a minimum financial return as a "hurdle rate" and reject alternatives that do not provide this return. The Corps may agree with this decision.[205]

Incomplete guidance gives district engineers substantial discretion,[206] and the interviews report that a variety of factors influence the permit decision. They indicate that developers try to avoid wetlands at the time of application because alternatives analysis is front-loaded, powerful, and costly.[207] Well-presented projects are approved,[208] but getting agreement depends on the level of detail, the geographic scope of a proposed project, and the size of alternatives.[209]

As the examples at the beginning of the Article showed, an alternative can either be off-site or on-site.[210] If an off-site alternative is practicable, an applicant must relocate the project to that site. Relocation protects the wetlands resource and changes the impact a project has on existing development, but may require relocation to a site the applicant rejected. When off-site alternatives are considered, the nature of the project determines how the search for an alternative is conducted. A shopping center, for example, requires a search in its market area.[211] The interviews reported, however, that off-site alternatives are not usually selected.[212] The problem may be a lack of off-site opportunities,[213] problems with off-site locations,[214] or project issues that make off-site selection difficult.[215] Off-site alternatives are easier to find in undeveloped areas.[216]

If an off-site alternative is not practicable, alternatives are on-site through project modifications that will prevent any, or at least less, destruction of wetlands.[217] The alternatives analysis usually emphasizes on-site alternatives, which can minimize impacts on wetlands.[218] Disruptive relocation does not occur. Environmental effects can be minimized through design changes, such as by putting a culvert under a highway for a water pass-through.[219] An alternative for a home can require a different on-site location. However, design and other changes can increase costs,[220] such as requiring a smaller parking lot to avoid wetlands, or a bulkhead instead of a slope on the property.[221] The size of a site is important. It affects the selection of alternatives, as they reflect the scope of the project.[222] Larger sites have more space than smaller sites to provide modifications that avoid development in wetlands.[223]

The practicable alternatives requirement usually results in permits that are conditioned to avoid or limit on-site negative impacts on wetlands. This is a typical outcome

198. *Id. at* 85343.
199. Regulatory Guidance Letter 93-02, *supra* note 109, at 47729, ¶ 3(b).
200. *Compare* Telephone Interview with Bob Kerr, Kerr Environmental Services Corp. (Aug. 9, 2017) [hereinafter Kerr Interview] (logistics is where it is sorted out), *with* Rolband Interview, *supra* note 124 (alternatives analysis mainly cost).
201. Kerr Interview, *supra* note 200 (technology a nonstarter, falls out quickly); Rolband Interview, *supra* note 124 (technological factor not usually important but there can be a technology limitation).
202. Kerr Interview, *supra* note 200 (cost is the new frontier, but it is a bramble, a tar baby). *See* Preparing an Alternatives Analysis, *supra* note 167 (cost examples include transportation cost and utilization and proximity to existing infrastructure).
203. Kerr Interview, *supra* note 200; Rolband Interview, *supra* note 124.
204. *Compare* Rolband Interview, *supra* note 124 (ROI accepted for private developers), *with* Los Angeles District Interview, *supra* note 90 (Jacksonville District slammed on ROI in court, went back to cost), *and* Kerr Interview, *supra* note 200 (profit margin is subjective, no magic ROI, banks cannot specify ROI, would be dictating terms and would require responsibility).
205. Rolband Interview, *supra* note 124.
206. Bostwick Interview, *supra* note 192 (decision is a judgment call, can wind up in court, factors are complex, no absolutes, lots of judgment); Dennis Interview, *supra* note 129 (alternatives analysis depends on person processing permit and whether he or she likes project); Rolband Interview, *supra* note 124 (no clear criteria; individual project managers have extraordinary amount of discretion). A report based on interviews with federal regulators and the regulated community is consistent with these comments. Perspectives From Experience, *supra* note 185, at 4-5 (reporting that most offices do not have "standard approaches for evaluating avoidance practices for specific types of projects").
207. Albrecht Interview, *supra* note 43. For an example of an alternatives analysis, see Manage Tech Solutions, Draft Section 404(b)(1) Alternatives Analysis Prepared for the Port of Los Angeles for the San Pedro Waterfront Project (2009), *available at* https://www.portoflosangeles.org/EIR/SPWaterfront/FEIR/Appendix_Q.pdf.
208. Barron Interview, *supra* note 87.
209. Dennis Interview, *supra* note 129. Major landowners with a number of projects will want to use their own land, though ownership is not a basis for rejecting an alternative. *Id.*
210. Barron Interview, *supra* note 87 (presence of a resource is the critical factor, will then have to look for more alternatives).
211. *Id.* (also noting a search done in five counties where university considered locating).
212. Los Angeles District Interview, *supra* note 90 (rare to find off-site alternative that is practicable; do not like to build in middle of nowhere, infrastructure costly); Dennis Interview, *supra* note 129 (shopping center on large site, can push alternatives aside); Rolband Interview, *supra* note 124 (many times cannot find alternatives for larger sites, especially big projects, purpose and need statement a problem; do not have to look off-site for small projects); Headquarters Interview, *supra* note 50 (off-site alternatives do not work, often do not meet project purpose, usually rejected as not practicable).
213. Los Angeles District Interview, *supra* note 90 (easy places with no waters on them have been built in southern California and Arizona); Bostwick Interview, *supra* note 192 (40% of Upper Peninsula wet).
214. Rolband Interview, *supra* note 124 (lack of access, property not for sale).
215. Bostwick Interview, *supra* note 192 (metropolitan airport); Rolband Interview, *supra* note 124 (mixed-use project).
216. Headquarters Interview, *supra* note 50. *See* Albrecht Interview, *supra* note 43 (alternatives hard to find).
217. *E.g.*, Allen E-mail, *supra* note 128 (alternative selected for major planned community reduced extent of wetlands affected and number of homes planned).
218. Allen E-mail, *supra* note 128; Bostwick Interview, *supra* note 192 (discussing successful on-site minimization for metropolitan airport, including vegetation allowed in takeoff zone, support facilities moved, and restoration of wetlands).
219. *Id.*
220. Bostwick Interview, *supra* note 192 (discussing case where developer refused to make on-site changes).
221. Barron Interview, *supra* note 87.
222. Bostwick Interview, *supra* note 192.
223. Allen E-mail, *supra* note 128; Bostwick Interview, *supra* note 192. *But see* Rolband Interview, *supra* note 124 (can rely on environmental assessment or environmental impact statement for small sites; must look at land plan and consider improvements if either of these documents not done).

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in environmental programs that rely on permits to enforce their requirements. Most of the interviews reported that the alternatives requirement is effective in preserving wetlands.[224] There was some dissent.[225]

D. Case Law

The EPA guidelines do not require an alternative to be selected because it would be a more desirable project. The test is to "determine the feasibility of the least environmentally damaging alternatives that serve the basic project purpose."[226] It "is not whether a proposed project is 'better' than an alternative with less wetlands impact because it would cost less and have less impact on existing and future development."[227] Remote, speculative, impractical, or ineffective alternatives need not be considered, however.[228]

Practically all of the cases upheld Corps decisions that applied the alternatives requirement. The rule that permit decisions require judicial deference, the presumption that Corps decisions are correct,[229] and the "arbitrary and capricious" standard of judicial review[230] were important factors in these decisions, though different rules apply when there is a presumption that a practicable alternative is available or that an alternative has a less adverse effect on the aquatic system. Then, the presumption must be rebutted with a hard look, a meaningful conclusion, or convincing evidence that an alternative with less adverse impact is impracticable.[231] Presumptions did not change the favorable results in the decisions, however.[232]

Most of the cases reviewed factual conclusions the Corps adopted when it decided whether a practicable alternative existed, but did not provide specific guidance for deciding when an alternative is practicable. The cases either upheld decisions to reject alternatives[233] or rejected findings that practicable alternatives were available.[234] An occasional

224. E-mail From Virginia Albrecht, Hunton & William, to the author (July 2, 2018) (alternatives analysis expensive and requires experts and multiple meetings; most developers have learned to avoid wetlands whenever possible; more resources should be spent on design and implementation of compensatory mitigation, including enforcement of permit conditions); Devine Interview, *supra* note 50 (requirement provides benefits from simple existence of permit obligation and dischargers desire to avoid it even though streamlined); Headquarters Interview, *supra* note 50 (requirement makes people think about design and location); Rolband Interview, *supra* note 124 (requirement provides better effect on environment with no negative effect on developer). *See* Dennis Interview, *supra* note 129 (depends on complexity and extent of project).

225. Goldman-Carter Interview, *supra* note 70 (typical case is a paper exercise, alternatives are straw men, process is mechanism to justify rejection; none of the pieces really there, huge turnover, political pressure, staff not well-trained including Fish & Wildlife Service and EPA, not encouraged to do job, but bad projects can be stopped, and requirement would not be a paper exercise if done right).

226. *E.g.*, Utahns for Better Transp. v. U.S. Dep't of Transp., 305 F.3d 1152, 1187 (10th Cir. 2002), *as modified on reh'g*, 319 F.3d 1207 (10th Cir. 2003).

227. *Id.* at 1186.

228. Hillsdale Envtl. Loss Prevention, Inc. v. U.S. Army Corps of Eng'rs, 702 F.3d 1156, 1168 (10th Cir. 2012); Friends of the Earth v. Hall, 693 F. Supp. 904, 947, 19 ELR 20298 (W.D. Wash. 1988) (Corps acted rationally in excluding speculative possibilities for a resale of alternate site in the future). A similar rule applies under NEPA. NEPA Law and Litigation, *supra* note 8, §10:36 (discussing Council on Environmental Quality regulation stating that agencies need only discuss reasonably foreseeable environmental effects).

229. *E.g.*, *Hillsdale Envtl. Loss Prevention, Inc.*, 702 F.3d at 1167 ("Corps's actions are presumptively valid under the APA, and Hillsdale bears the burden of proving the agency acted arbitrarily and capriciously."); National Wildlife Fed'n v. Whistler, 27 F.3d 1341, 1344, 24 ELR 21609 (8th Cir. 1994) (applicant "faces an uphill road"); Northwest Bypass Group v. U.S. Army Corps of Eng'rs, 552 F. Supp. 2d 97, 105 (D.N.H. 2008) (discussing standard of review). *But see* Park v. United States, 286 F. Supp. 2d 201, 206 (D.P.R. 2003) ("While this is a highly deferential standard of review, it is not a rubber stamp.").

230. The substantial evidence rule applies when a record is created based on a hearing. APA, 5 U.S.C. §706(2)(E).

231. The burden of proof can be stated as the agency's burden. *Hillsdale Envtl. Loss Prevention, Inc.*, 702 F.3d at 1168 (presumption requires "only record evidence the agency took a hard look at the proposals and reached a meaningful conclusion based on the evidence"). It can also be stated as the applicant's burden. *Utahns for Better Transp.*, 305 F.3d at 1187, *as modified on reh'g*, 319 F.3d 1207 (10th Cir. 2003) (burden is on "applicant, 'with independent verification by the [Corps], . . . provide[s] detailed, clear and convincing information *proving*' that an alternative with less adverse impact is 'impracticable'").

232. *E.g.*, Butte Envtl. Council v. U.S. Army Corps of Eng'rs, 620 F.3d 936, 945, 40 ELR 20144 (9th Cir. 2010) (business park, presumption rebutted).

233. Friends of the Santa Clara River v. U.S. Army Corps of Eng'rs, 887 F.3d 906, 48 ELR 20054 (9th Cir. 2018) (planned community; substantial reductions in extent of developable land would prevent project from meeting elements of overall project purpose and substantial increase in costs would render project impracticable); *Hillsdale Envtl. Loss Prevention, Inc.*, 702 F.3d at 1168 (rail/truck facility, presumption of availability rebutted); *Butte Envtl. Council*, 620 F.3d at 945 (business park, presumption rebutted); Bering Strait Citizens for Responsible Res. Dev. v. U.S. Army Corps of Eng'rs, 524 F.3d 938, 947, 38 ELR 20004 (9th Cir. 2008) (mining project); Greater Yellowstone Coal. v. Flowers, 359 F.3d 1257, 1271, 34 ELR 20019 (10th Cir. 2004) (presumption rebutted, housing development and golf course); *National Wildlife Fed'n*, 27 F.3d at 1344 (boat access); Town of Norfolk v. U.S. Army Corps of Eng'rs, 968 F.2d 1438, 1447, 22 ELR 21337 (1st Cir. 1992) (Boston Harbor cleanup); James City County, Virginia v. Environmental Prot. Agency (JCCI), 955 F.2d 254, 260, 22 ELR 20566 (4th Cir. 1992) (dam for reservoir, alternatives costly or environmentally damaging or opposed), *rev'd on other grounds*, James City County, Virginia v. Environmental Prot. Agency (JCCII), 12 F.3d 1330, 24 ELR 20182 (4th Cir. 1993), *cert. denied*, 513 U.S. 823 (1994); Friends of the Earth v. Hintz, 800 F.2d 822, 832, 17 ELR 20030 (9th Cir. 1986) (sorting yard); National Parks Conservation Ass'n v. Semonite, 311 F. Supp. 3d 350, 376, 48 ELR 20086 (D.D.C. 2018) (planned electrical infrastructure project; appeal filed); Town of Abita Springs v. U.S. Army Corps of Eng'rs, 153 F. Supp. 3d 894, 921 (E.D. La. 2015) (well pad for an exploratory test well); Schmidt v. U.S. Army Corps of Eng'rs, No. 2:08-cv-0076, 2009 WL 579412, at *14 (W.D. Mich. Mar. 5, 2009) ("Plaintiff had other options for the construction of a waterfront residence, including options on property already owned by the Plaintiff"); National Wildlife Fed'n v. Souza, No. 08-141 15-CI, 2009 WL 3667070, at *20 (S.D. Fla. Oct. 23, 2009) (1,713-acre luxury residential golf community); North Idaho Cmty. Action Network v. Hofmann, Civ. No. 08-181-N-EJL, 2009 WL 1076165, at *4 (D. Idaho Apr. 21, 2009) (highway); *Northwest Bypass Group*, 552 F. Supp. 2d at 108 (connector road); Advocates for Transp. Alternatives, Inc. v. U.S. Army Corps of Eng'rs, 453 F. Supp. 2d 289, 308 (D. Mass. 2006) (commuter rail, accepting screening criteria and ridership models); Florida Keys Citizens Coal., Inc. v. U.S. Army Corps of Eng'rs, 374 F. Supp. 2d 1116, 1153 (S.D. Fla. 2005) (highway); *Park*, 286 F. Supp. 2d at 207 (location of middle-income housing, access); Water Works & Sewer Bd. of the City of Birmingham v. U.S. Dep't of Army, Corps of Eng'rs, 983 F. Supp. 1052, 1082 (N.D. Ala. 1997) (water intake structure and associated pipeline), *aff'd sub nom. without opinion*, Water Works v. U.S. Army Corps of Eng'rs, 162 F.3d 98 (11th Cir. 1998); Sierra Club v. U.S. Army Corps of Eng'rs, 935 F. Supp. 1556, 1576 (S.D. Ala. 1996) ("not practicable on the basis of both cost and logistics"); Citizens Alliance to Protect Our Wetlands v. Wynn, 908 F. Supp. 825, 830, 26 ELR 20799 (W.D. Wash. 1995) (horse racing facility); Shoreline Assocs. v. Marsh, 555 F. Supp. 169, 179, 13 ELR 20421 (D. Md. 1983) (housing), *aff'd*, 725 F.2d 677, 14 ELR 20269 (4th Cir. 1984); National Audubon Soc'y v. Hartz Mountain Dev. Corp., 14 ELR 20724 (D.N.J. 1983) (office building development, alternatives lacked access, were being developed, could not be acquired, were improperly zoned, or were wetlands).

234. Alameda Water & Sanitation Dist. v. Reilly, 930 F. Supp. 486, 492, 26 ELR 21526 (D. Colo. 1996) (water storage project, "very substantial regulatory

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case rejected a Corps analysis.[235] The success rate for plaintiffs in NEPA cases is substantially higher.[236]

A Tenth Circuit decision, *Utahns for Better Transportation v. U.S. Department of Transportation*,[237] illustrates how courts handle a Corps analysis of practicable alternatives in a rare case where a court accepted Corps rejection of some alternatives but not others. At issue was a major parkway for the Salt Lake City area. The Corps rejected an alternate alignment because of its high impact on existing development, but the court disapproved because the evidence did not adequately address whether the alternate alignment's impact on existing development was so high that it would be impracticable.[238] An alternative with excessively high impacts could have "other significant adverse environmental consequences" that would have disqualified it under the EPA guidelines.[239]

The court also reversed Corps rejection of a narrower right-of-way because safety and other justifications for it had not been proved.[240] A failure even to consider a proposed alternative was also fatal.[241] However, the court upheld Corps rejection of an alternate land use scenario because local governments in the study area were not implementing the coordinated planning and restrictive zoning necessary to achieve the proposed land use.[242] The decision implicitly recognizes off-site impact and safety problems as reasons for finding an alternative impracticable.[243]

Guidance on some issues is contained in some of the decisions. Courts rely, for example, on the rule that the Corps can consider a project's legitimate purpose when it reviews alternatives.[244] This rule is self-serving. The Corps can accept an applicant's objective as the project purpose[245] and then refuse to consider alternatives that do not meet that purpose. Courts accept this decision,[246] which substantially narrows the alternatives search.

The courts also support Corps decisions rejecting alternatives by allowing it to narrow the geographic scope of the area in which it considers alternatives. In *Northwest Environmental Defense Center v. Wood*,[247] for example, the Corps issued a permit for a project that would fill 10.4 acres of wetlands to accommodate a major semiconductor fabrication plant. Plaintiffs claimed the project should not be restricted to the local area where it was proposed because the company was a multinational with national and international customers. They claimed the search should have been national or at least statewide. The district court held there were legitimate economic reasons to restrict the project to the local area.[248]

Cost issues dominate the cases reviewing Corps decisions on practicable alternatives.[249] The courts hold that the EPA guidelines do not require any "particular metric" for analyzing costs and defer to the Corps' judgment on this issue.[250] The cases have adopted some rules. An unquantified higher operating cost does not mean an alternative is

and legal obstacles to these alternatives," including transfer of water rights, relocation of town, and inundation of historic buildings); Korteweg v. Corps of Eng'rs of U.S. Army, 650 F. Supp. 603, 604 (D. Conn. 1986) (housing); 1902 Atl. Ltd. v. Hudson, 574 F. Supp. 1381, 1398, 14 ELR 20023 (E.D. Va. 1983) (relied on water dependency factor as primary basis for approval); Hough v. Marsh, 557 F. Supp. 74, 83, 13 ELR 20610 (D. Mass. 1982) (housing, decision based on single letter, no search outside prime residential neighborhood, case remanded). *See also* Friends of the Earth v. Hall, 693 F. Supp. 904, 946, 19 ELR 20298 (W.D. Wash. 1988) (remanded dependent on cure of NEPA violations).

235. *Utahns for Better Transp.*, 305 F.3d at 1187-90, *as modified on reh'g*, 319 F.3d 1207 (10th Cir. 2003) (parkway); Alliance to Save the Mattaponi v. U.S. Army Corps of Eng'rs, 606 F. Supp. 2d 121, 128, 39 ELR 20079 (D.D.C. 2009) (water reservoir); *Friends of the Earth*, 693 F. Supp. at 946 (Navy homeport).
236. David E. Edelman & Robert L. Glicksman, *Presidential and Judicial Politics in Environmental Litigation*, 50 Ariz. St. L.J. 3 (2018) (stringency of judicial review in NEPA cases driven by interaction of judicial ideology and presidential politics). *See* Goldman-Carter Interview, *supra* note 70 (courts more comfortable finding NEPA violations).
237. *Utahns for Better Transp.*, 305 F.3d at 1187-90, *as modified on reh'g*, 319 F.3d 1207 (10th Cir. 2003).
238. *Id*. at 1187.
239. 40 C.F.R. §230.10(a) (2018).
240. *Utahns for Better Transp.*, 305 F.3d at 1187-89. Neither was the need for a concrete barrier justified, and there was no evidence that the Corps considered whether a substitute water quality control method was practicable with a narrower median.
241. The need for a concrete barrier was not justified, and there was no evidence the Corps considered whether a substitute water quality control method was practicable with a narrower median. *Id*. at 1188. Neither was there a showing that a berm and utility corridor was not practicable. *Id*. at 1189. *See also* Delaware Riverkeeper Network v. U.S. Army Corps of Eng'rs, 869 F.3d 148, 160 (3d Cir. 2017) (cost or practicability not mentioned in analysis).
242. Corps guidance allows consideration of local planning and zoning. *See supra* notes 82-102 and accompanying text.
243. An early court of appeals case reviewing a veto decision by EPA held the alternatives requirement should be applied at the time of market entry. Bersani v. Environmental Prot. Agency, 850 F.2d 36, 18 ELR 20874 (2d Cir. 1988). This case is no longer relevant. Albrecht Interview, *supra* note 43 (market entry rule applies to applicants buying land, not done now, does not come up). The case attracted considerable attention. *See*, *e.g.*, Christine A. Klein, Bersani v. EPA: *The EPA's Authority Under the Clean Water Act to Veto Section 404 Wetland-Filling Permits*, 19 Envtl. L. 389 (1988); Rosalie K. Rusinko, Bersani v. EPA: *Wetlands Protection—The EPA Veto Power Under the Clean Water Act*, 7 Pace Envtl. L. Rev. 375 (1990).
244. Greater Yellowstone Coal. v. Flowers, 359 F.3d 1257, 1270, 34 ELR 20019 (10th Cir. 2004); Louisiana Wildlife Fed'n, Inc. v. York, 761 F.2d 1044, 1048, 15 ELR 20614 (5th Cir. 1985) (quoting guidelines, and upholding conversion of wetlands to agriculture); National Wildlife Fed'n v. Norton, 332 F. Supp. 2d 170, 186 (D.D.C. 2004) (upholding rejection of alternate mining sites, "stated purpose was to provide a source of limestone for its existing mining operations in Lee County").
245. *See supra* notes 145-50 and accompanying text, though noting the Corps must exercise its independent judgment on this issue.
246. Friends of the Santa Clara River v. U.S. Army Corps of Eng'rs, 887 F.3d 906, 48 ELR 20054 (9th Cir. 2018) (planned community; substantial reductions in extent of developable land would prevent project from meeting elements of overall project purpose); Jones v. National Marine Fisheries Serv., 741 F.3d 989, 1002, 44 ELR 20002 (9th Cir. 2013) (upholding Corps rejection of sites that did not provide a sufficient quantity of chromite to meet project's purposes); Utahns for Better Transp. v. U.S. Dep't of Transp., 305 F.3d 1152, 1189 (10th Cir. 2002), *as modified on reh'g*, 319 F.3d 1207 (10th Cir. 2003) (removing trails in parkway project not practicable in light of project's overall purpose of meeting transportation corridor needs); Defs. of Wildlife v. United States Army Corps of Engineers, No. CV-15-14-GF-BMM, 2018 WL 3510534, at *11, 48 ELR 20131 (D. Mont. July 20, 2018) (selection of bypass alternative); Stewart v. Potts, 996 F. Supp. 668, 675 (S.D. Tex. 1998) (relying on project purpose to limit geographic scope of project).
247. 947 F. Supp. 1371, 1377, 27 ELR 20668 (D. Or.), *aff'd*, 97 F.3d 1460 (9th Cir. 1996). *See* Los Angeles District Interview, *supra* note 90 (geographic scope of alternatives only needs to be broad enough to allow consideration of a reasonable range of alternatives).
248. *Accord Stewart*, 996 F. Supp. at 675 (city did not have to consider location of golf course outside its extraterritorial jurisdiction).
249. *See supra* notes 197-99 and accompanying text (discussing cost factor).
250. *Friends of the Santa Clara River*, 887 F.3d 906 (guidelines "merely instruct the Corps to assess alternatives in light of their 'cost, existing technology, and logistics'").

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not "available" or "capable of being done,"[251] but an alternative is disqualified if it is impracticably expensive, a decision consistent with Corps guidance.[252]

Courts accept Corps treatment of project details. They have decided that Corps decisions on the number of parking spaces selected for a shopping mall,[253] the unit of measure selected for determining project costs,[254] the cost basis selected for a project,[255] and a project's rate of return[256] were correct. A failure to verify cost estimates provided by an applicant was fatal.[257]

VIII. The Significant Degradation and Public Interest Requirements

Permits for dredge and fill activities must also satisfy significant degradation and public interest[258] tests in addition to the practicable alternatives requirement. EPA guidelines prohibit §404 permits "which will cause or contribute to significant degradation of the waters of the United States," and list four effects that contribute to significant degradation.[259] The Corps must make a finding that this requirement is satisfied after it decides whether a practicable alternative is available.[260] The significant degradation requirement does not usually present a problem for projects with smaller impacts to wetlands, though projects with larger impacts often involve more complex issues.[261] In most of the cases, Corps findings that significant degradation would not occur have been upheld.[262]

The public interest test is extensive and detailed. It begins with a general statement that "[t]he decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest."[263] This requirement is stated as a balancing test.[264]

Several factors are to be "considered" in making this decision. They include conservation, economics,[265] aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, and land use.[266] More detail about these factors is provided later in the regulation.[267] For most Corps permits, a presumption exists that "a permit will be granted unless the district engineer determines that it would be contrary to the public interest."[268]

General criteria to be considered in the evaluation of every application are also provided.[269] They include the relative extent of the public and private need for the proposal, beneficial and detrimental effects on the public and private uses to which the area is suited, and where there are unresolved conflicts in resource use, "the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work."[270] This criterion introduces a practicable alternatives requirement, but it is stated differently than in the EPA guidelines and is only one of several considerations the Corps must take into account when it considers the public interest.[271]

251. Delaware Riverkeeper Network v. U.S. Army Corps of Eng'rs, 869 F.3d 148, 159 (3d Cir. 2017) (more information is needed to make this decision).
252. *Friends of the Santa Clara River*, 887 F.3d at 921 (alternative to planned community); Friends of the Earth v. Hintz, 800 F.2d 822, 832, 17 ELR 20030 (9th Cir. 1986) (alternatives "would mean substantial additional costs"); Defs. of Wildlife v. United States Army Corps of Engineers, No. CV-15-14-GF-BMM, 2018 WL 3510534, at *12, 48 ELR 20131 (D. Mont. July 20, 2018) (selection of bypass alternative); Sierra Club v. U.S. Army Corps of Eng'rs, 935 F. Supp. 1556, 1575 (S.D. Ala. 1996) ("not practicable on the basis of both cost and logistics"). *See* Friends of the Earth v. Hall, 693 F. Supp. 904, 947, 19 ELR 20298 (W.D. Wash. 1988) (cost determinative only for equivalent alternatives); Hough v. Marsh, 557 F. Supp. 74, 84, 13 ELR 20610 (D. Mass. 1982) ("no examination of whether the price was unreasonably high, whether the defendants could afford it, and whether the wetlands parcel could be sold for a comparable or greater amount").
253. Sierra Club v. Van Antwerp, 661 F.3d 1147, 1152 (D.C. Cir. 2011) (accepting applicant's conclusion on number of spaces needed).
254. *Friends of the Santa Clara River*, 887 F.3d 906 (planned community, per-acre unit accepted rather than residential unit or commercial floorspace as developer planned to build that way). *See also Friends of the Earth*, 693 F. Supp. at 947 (Navy homeport, additional cost of repeated applications of additional capping material and monitoring).
255. *Compare Friends of the Santa Clara River*, 887 F.3d 906 (accepting acquisition cost and assuming comparable projects would require acquisition), *with Van Antwerp*, 661 F.3d at 1151 (accepting fair market value rather than acquisition cost and assuming the cost of an alternate project would be market value). The court in *Van Antwerp* gave other reasons including a conclusion that cost should be taken as the cost of proceeding with the project as planned. *See also* Louisiana Wildlife Fed'n, Inc. v. York, 761 F.2d 1044, 1048, 15 ELR 20614 (5th Cir. 1985) (agricultural conversion, Corps chose alternatives that reduced both applicants' profit and economic efficiency of proposed operations to preserve other environmental values).
256. *Van Antwerp*, 661 F.3d at 1152 (8%).
257. Utahns for Better Transp. v. U.S. Dep't of Transp., 305 F.3d 1152, 1187 (10th Cir. 2002), *as modified on reh'g*, 319 F.3d 1207 (10th Cir. 2003); *Friends of the Earth*, 693 F. Supp. at 946 ("Corps failed to explain why a cost differential of whatever size renders the upland alternatives impracticable").
258. 33 C.F.R. §320.4 (2018). This requirement dates before enactment of the CWA in 1972. Los Angeles District Interview, *supra* note 90. *See* United States v. Alaska, 503 U.S. 569, 583 (1992) (regulation not invalid because it considers other effects in addition to navigability).
259. 40 C.F.R. §230.10(c) (2018). Findings of significant degradation shall be based on "appropriate factual determinations, evaluations, and tests required by" subparts to the guidelines.
260. Headquarters Interview, *supra* note 50.
261. Los Angeles District Interview, *supra* note 90.
262. Bering Strait Citizens for Responsible Res. Dev. v. U.S. Army Corps of Eng'rs, 524 F.3d 938, 949, 38 ELR 20004 (9th Cir. 2008); Town of Norfolk v. U.S. Army Corps of Eng'rs, 968 F.2d 1438, 1454, 22 ELR 21337 (1st Cir. 1992) (failure to analyze impact on groundwater not fatal); Sierra Club v. Van Antwerp, 719 F. Supp. 2d 58, 74 (D.D.C. 2010), *aff'd in part, rev'd in part*, 661 F.3d 1147 (D.C. Cir. 2011); National Wildlife Fed'n v. Souza, No. 08-141 15-CI, 2009 WL 3667070, at *19 (S.D. Fla. Oct. 23, 2009). *But see* Alliance to Save the Mattaponi v. U.S. Army Corps of Eng'rs, 606 F. Supp. 2d 121, 134, 39 ELR 20079 (D.D.C. 2009) (not shown that mitigation plan would remedy significant degradation).
263. 33 C.F.R. §320.4(a)(1) (2018).
264. "The decision whether to authorize a proposal . . . [is] determined by the outcome of this general balancing process." *Id.*
265. *But see* Mall Props., Inc. v. Marsh, 672 F. Supp. 561, 567, 18 ELR 20135 (D. Mass. 1987) (can only weigh economic effects related to changes in the physical environment).
266. They also include navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. "The specific weight of each factor is determined by its importance and relevance to the particular proposal." 33 C.F.R. §320.4(a)(3) (2018).
267. *Id.* §320.4(b)-(q). Mitigation is required. *Id.* §320.4(r).
268. *Id.* §320.4(a)(1).
269. *Id.* §320.4(a)(2).
270. *Id.*
271. Water Works & Sewer Bd. of the City of Birmingham v. U.S. Dep't of Army, Corps of Eng'rs, 983 F. Supp. 1052, 1064 (N.D. Ala. 1997), *aff'd sub nom.* Water Works v. U.S. Army Corps of Eng'rs, 162 F.3d 98 (11th

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Public interest review occurs after the practicable alternative test is applied. The interviews reported that a public interest review is not usually a problem,[272] and the cases almost always accept Corps decisions that an applicant has met the public interest requirement.[273] Corps decisions that the requirement had been met were reversed only in a few early cases.[274]

The Corps should consider the comment by one court of appeals that the public interest "regulation is overly ambitious, and should perhaps be considered aspirational."[275] It overlaps with and contains requirements similar to those within the practicable alternatives requirement, but provides a very different balancing test. Application of this requirement seldom results in a rejection of an application, and it is questionable whether it is needed. If it is retained, it should be integrated with the practicable alternatives requirement to provide a single set of rules for §404 permit applications.

IX. Conclusion

Development in wetlands is subject to a formidable array of federal, state, and local requirements. Although the §404 permit program is the primary statutory source for wetlands protection, additional controls are provided by other federal statutes, such as the ESA; by state wetlands permit programs and water quality certifications; and by state, regional, and local planning and land use regulation. The practicable alternatives requirement functions within this array primarily as a conditioned permit that requires project modifications to reduce a development's effect on wetlands resources. This is an important contribution.

This Article has made recommendations for revising the practicable alternatives requirement that would improve its role in the protection of wetlands resources. Environmental analysis under NEPA should be applied to a review of practicable alternatives only if it is relevant. A relevance test is also needed to decide when state, regional, and local plans and land use regulations can be considered. Corps regulations should specify types of applications where hearings are mandatory. The project purpose requirement should be revised to limit consideration of an applicant's project objectives. The public interest test should either be eliminated or integrated with the practicable alternatives requirement.

Revision is also required in the scattered and largely unpublished collection of agency guidance. EPA and the Corps should adopt guidance for permit application reviews in one regulation that receives official status after notice-and-comment review. This change would clarify the criteria they apply to permit decisions. RGLs should be eliminated, and any RGLs still current should be included in the new regulation. Elevation decisions should be published on a regular basis, as should EPA veto decisions.

Permit decision criteria need revision. They should provide guidance related to the different types of projects that require a §404 permit that includes guidance on what types of alternatives are practicable for each type of project. This approach provides advice for the type of development that actually occurs in wetlands areas. It is preferable to an abstract listing of factors such as technology, cost, and logistics, as in the present EPA guidelines. These factors give project-dependent issues a priority over the need for wetlands protection. Cost factors especially should not override environmental needs, though the regulation could include a cost threshold over which an alternative becomes financially prohibitive.

Wetlands are a critical natural resource. EPA guidelines for §404 permits require the selection of practicable alternatives to limit damage to wetlands resources. This purpose has reasonably been achieved by conditioning permits with on-site modifications that can avoid wetlands damage. Revisions to the practicable alternatives requirement can make it a more effective program for wetlands protection.

Cir. 1998) (permit approved; alternatives one of several factors considered). Water dependency is not essential. 1902 Atl. Ltd. v. Hudson, 574 F. Supp. 1381, 1397, 14 ELR 20023 (E.D. Va. 1983) (permit denied).

272. Dennis Interview, *supra* note 129 (review typically); Rolband Interview, *supra* note 124.

273. Hoosier Envtl. Council v. U.S. Army Corps of Eng'rs, 722 F.3d 1053, 1062 (7th Cir. 2013) (permit approved); Bering Strait Citizens for Responsible Res. Dev. v. U.S. Army Corps of Eng'rs, 524 F.3d 938, 948, 38 ELR 20004 (9th Cir. 2008) (same); Alliance to Protect Nantucket Sound, Inc. v. U.S. Dep't of Army, 398 F.3d 105, 113, 35 ELR 20040 (1st Cir. 2005) (same; effect on federal property negligible); Roanoke River Basin Ass'n v. Hudson, 940 F.2d 58, 65, 21 ELR 21238 (4th Cir. 1991) (same); National Parks Conservation Ass'n v. Semonite, 311 F. Supp. 3d 350, 375-76, 48 ELR 20086 (D.D.C. 2018) (permit approved; planned electrical infrastructure project; appeal filed); Black Warrior Riverkeeper, Inc. v. Alabama Dep't of Transp., No. 2:2011cv00267, 2016 WL 233672, at *42, 46 ELR 20017 (M.D. Ala. Jan. 19, 2016) (same; consideration of economic cost upheld); Schmidt v. U.S. Army Corps of Eng'rs, No. 2:08-cv-0076, 2009 WL 579412, at *4 (W.D. Mich. Mar. 5, 2009) (permit denied; benefits do not outweigh detriments to public interest); Northwest Bypass Group v. U.S. Army Corps of Eng'rs, 552 F. Supp. 2d 97, 112 (D.N.H. 2008) (permit approved); *Water Works & Sewer Bd. of the City of Birmingham*, 983 F. Supp. at 1064 (permit approved; Corps considered scope of project, need, alternatives, water supply, economic impacts, water quality, and threatened and endangered species), *aff'd sub nom*. Water Works v. U.S. Army Corps of Eng'rs, 162 F.3d 98 (11th Cir. 1998); Shoreline Assocs. v. Marsh, 555 F. Supp. 169, 178, 13 ELR 20421 (D. Md. 1983), *aff'd without opinion*, 725 F.2d 677, 14 ELR 20269 (4th Cir. 1984) (permit denied).

274. Van Abbema v. Fornell, 807 F.2d 633, 643, 17 ELR 20429 (7th Cir. 1986) (permit vacated on economic factors); *1902 Atl. Ltd.*, 574 F. Supp. at 1397 (permit denied; benefits not weighed); Hough v. Marsh, 557 F. Supp. 74, 82, 13 ELR 20610 (D. Mass. 1982) (permit approved; no showing on alternatives, local concerns, economics, and cumulative impacts).

275. *Hoosier Envtl. Council*, 722 F.3d at 1062.