

AASHTO PRACTITIONER'S HANDBOOK

14

August 2016

APPLYING THE SECTION 404(B)(1) GUIDELINES IN TRANSPORTATION PROJECT DECISION-MAKING

This Handbook is intended to assist practitioners in applying the Section 404(b)(1) Guidelines in the environmental review process for surface transportation projects. The Handbook focuses on highway and transit projects that require an individual Section 404(b)(1) Guidelines permit under the Clean Water Act and involve preparation of an environmental impact statement (EIS) or environmental assessment (EA) under the National Environmental Policy Act (NEPA).

This Handbook outlines steps that can be taken at each stage of the environmental review process to lay the foundation for compliance with the guidelines. Issues covered in this Handbook include:

- Linking the transportation planning process to project-level studies and decisions
- Initiating an environmental review process that includes NEPA and Section 404(b)(1) Guidelines requirements (as well as Rivers and Harbors Act requirements, where applicable)
- Identifying and evaluating aquatic resources, including waters of the United States
- Defining “purpose and need” under NEPA and “overall project purposes” under Section 404(b)(1) Guidelines
- Developing, screening, and evaluating alternatives under both NEPA and Section 404(b)(1) Guidelines
- Selecting a preferred alternative that complies with the guidelines and with the requirement for a public-interest determination
- Developing mitigation measures that comply with the guidelines
- Resolving inter-agency disputes involving the guidelines

The Practitioner's Handbooks are produced by the Center for Environmental Excellence by AASHTO. The Handbooks provide practical advice on a range of environmental issues that arise during the planning, development, and operation of transportation projects.

The Handbooks are primarily intended for use by project managers and others who are responsible for coordinating compliance with a wide range of regulatory requirements. With their needs in mind, each Handbook includes:

- key issues to consider;
- a background briefing;
- practical tips for achieving compliance; and
- a list of reference materials.

In addition, key regulations, guidance materials, and sample documents for each Handbook are posted on the Center's web site at <http://environment.transportation.org>.



Center for Environmental Excellence by AASHTO



American Association of State Highway and Transportation Officials

Copyright © 2016, Center for Environmental Excellence by AASHTO (American Association of State Highway and Transportation Officials). All Rights Reserved. This book, or parts thereof, may not be reproduced in any form without written permission of the publisher. Printed in the United States of America.

This material is based upon work supported by the Federal Highway Administration under Cooperative Agreement No. DTFH61-07-H-00019. Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the Author(s) and do not necessarily reflect the view of the Federal Highway Administration.

Overview



This Handbook provides advice on compliance with the Section 404(b)(1) Guidelines as part of the environmental review process for a transportation project.

Section 404(b)(1) Guidelines of the Clean Water Act prohibits the discharge of dredged or fill materials into waters of the United States, except when authorized by a permit issued by the U.S. Army Corps of Engineers (Corps). Waters of the United States—also called jurisdictional waters—include many wetlands, streams, lakes, and rivers, as well as oceans.

When issuing permits under Section 404, the Corps must comply with the Section 404(b)(1) Guidelines. The guidelines define the criteria that must be met in order for the Corps to issue a Section 404 permit. The guidelines were issued by the U.S. Environmental Protection Agency (EPA) and are included in EPA's regulations at 40 CFR Part 230.

Federal agencies typically consider the guidelines as one part of an environmental review process that includes compliance with many other laws, such as the National Environmental Policy Act (NEPA). Therefore, rather than addressing the Guidelines in isolation, this Handbook considers the guidelines in the context of the environmental review process as a whole. The Handbook uses a step-by-step approach to illustrate the actions that can be taken throughout the process to lay the groundwork for compliance with the guidelines.

It is important to note several points regarding the scope and emphasis of this Handbook:

- The Handbook focuses on actions that transportation agencies can take in their capacity as project sponsors, joint lead agencies, and/or Section 404(b)(1) Guidelines permit applicants.
- The Handbook focuses on projects that require an individual Section 404(b)(1) Guidelines permit under the Clean Water Act and that involve preparation of an Environmental Impact Statement (EIS) or Environmental Assessment (EA) under NEPA—in other words, relatively large and complex projects. These projects are the focus of the Handbook because they are the ones that are most likely to involve challenges regarding the application of the guidelines. The Handbook does not address projects that qualify for nationwide or regional general permits.
- The Handbook focuses on Section 404(b)(1) Guidelines permitting, rather than covering all forms of Corps permitting equally. The Handbook briefly discusses permits issued by the Corps under Sections 9 and 10 of the Rivers and Harbors Act.
- The Handbook focuses on the guidelines specifically, rather than covering all aspects of Section 404(b)(1) Guidelines permitting. The Handbook focuses on the guidelines because of their important role in decision-making for complex transportation projects. As context for the discussion of the guidelines, the Handbook includes background information on other important aspects of Section 404(b)(1) Guidelines permitting, such as jurisdictional determinations.

Background Briefing

The Clean Water Act prohibits the discharge of dredged or fill material into waters of the United States, except as authorized in a permit issued pursuant to Section 404(b)(1) Guidelines of the Act. The agency with direct responsibility for issuing Section 404(b)(1) Guidelines permits is the Corps. In carrying out this responsibility, the Corps must follow criteria established by the EPA. These criteria are known as the Guidelines. Although they are called “guidelines,” these criteria are established in regulations (40 CFR Part 230) and are legally binding. The guidelines establish important requirements that must be met before a permit can be issued.

Corps Permitting—The Basics

Origins of Permitting Authority. The Corps' role as a permitting agency originates in the Rivers and Harbors Act of 1890. In general terms, that law prohibited the construction of barriers to navigation—piers, bridges, abutments, etc.—in navigable waters unless approved by the Secretary of War. The Corps' permitting role was expanded in the Rivers and Harbors Act of 1899, which prohibited discharges into navigable waters without a Corps permit. In 1972, Congress further expanded and redefined the Corps' permitting function with the enactment of Section 404(b)(1) Guidelines of the Clean Water Act. Section 404(b)(1) Guidelines gave the Corps broader permitting jurisdiction and more of an environmental protection mission. Today, the Corps continues to exercise permitting authority under the Rivers and Harbors Act, as well as the Clean Water Act.

Scope of Corps' Jurisdiction. The scope of the Corps' permitting jurisdiction is defined more broadly under the Clean Water Act than under the Rivers and Harbors Act. Section 404(b)(1) Guidelines of the Clean Water Act gives the Corps permitting authority over the “waters of the United States.” This term has been interpreted to include traditionally navigable waters as well as a wide range of non-navigable aquatic resources, including many wetlands. By contrast, the Rivers and Harbors Act gives the Corps permitting authority over “navigable waters of the United States.”¹

Standards for Determining Jurisdiction. The extent of the Corps' jurisdiction over “waters of the United States” has been the subject of extensive litigation. This issue was addressed by the Supreme Court in *Rapanos v. United States*. There was no single majority opinion in *Rapanos*, which left substantial confusion about the legal standard to be applied for determining jurisdiction. Based on that case, the Corps now defines its jurisdiction to include traditional navigable waters and their tributaries, as well as other aquatic resources with a “significant nexus” to those waters. Under this standard, wetlands are considered jurisdictional “if the wetlands, either alone or in combination with similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity” of traditional navigable waters.²

Process for Making Jurisdictional Determinations. Following the *Rapanos* decision, the Corps and EPA issued joint guidance (the *Rapanos* guidance) clarifying the standards and process for making jurisdictional determinations.³ In addition, the Corps issued Regulatory Guidance Letter 08-02, which further clarified the procedures for making jurisdictional determinations, and also allowed applicants to request a “preliminary jurisdictional determination.”⁴ With a preliminary determination, the applicant can concede jurisdiction and proceed with the permit application process, thereby avoiding a potentially time-consuming effort to determine jurisdiction.

Individual vs. General Permits. The Corps issues two types of permits under Section 404(b)(1) Guidelines: “individual permits” and “general permits.” Individual permits are issued for specific projects. An individual permit can be issued as a standard permit or as a “letter of permission,” which involves a more limited review for a project with minor impacts. General permits are issued for categories of projects that are presumed to have similar effects and not more than minimal impacts on the aquatic environment. General permits can be issued on a nationwide or regional basis.⁵ As noted in the Overview section, this Handbook focuses on individual permits.

Environmental Review Requirements. The Corps must comply with environmental review requirements under various Federal laws before issuing Section 404(b)(1) Guidelines permits. These laws include NEPA, the Endangered Species Act, the National Historic Preservation Act, the Coastal Zone Management Act, and many others. The level of review required under these laws varies greatly from case to case, depending on the nature of the project and its impacts. Each law has different requirements, and the Corps must ensure that all applicable requirements are satisfied before a permit is issued. The Corps' regulations include procedures for NEPA compliance (33 CFR Part 325, App. B) and for Section 106 compliance (33 CFR Part 325 App. C). As reflected in those regulations, the Corps has an independent obligation to comply with those laws. The

1 For purposes of the Rivers and Harbors Act, the Corps defines “navigable waters of the United States” as those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity. 33 CFR 328.3(a)

2 On June 29, 2015, the Corps and EPA published a final rule defining the term “waters of the United States.” The final rule took effect on August 28, 2015. However, a Federal court subsequently issued an injunction that prevented the rule from taking effect. As of the date of publication of this Handbook, the injunction remains in place, and therefore the June 2015 final rule is not in effect.

3 The joint EPA/Corps guidance documents are available on the Center's web site at <http://environment.transportation.org> and are listed in the Reference Materials section for this Practitioner's Handbook.

4 Regulatory Guidance Letter 08-02 is available on the Center's website at <http://environment.transportation.org> and are listed in the Reference Materials section for this Practitioner's Handbook.

5 33 CFR 320.1(c).

Corps may adopt, incorporate by reference, or otherwise use or rely upon the NEPA and Section 106 documents prepared by other agencies.

Public Interest Review. The Corps conducts a public interest review as part of its decision-making process under Section 404(b)(1) Guidelines and under Section 10 of the Rivers and Harbors Act. The public interest review is based on a range of factors, weighing the proposed impacts against the potential benefits of the proposed activity. The Corps issues a permit only if it concludes that the project is in the public interest. The public interest finding is required by the Corps' regulations, not by the guidelines.⁶ The Corps' regulations include a list of 21 criteria that the Corps must consider when making a public interest determination. One required element is a finding that the proposed activity complies with the guidelines.

Overview of Section 404(b)(1) Guidelines Permitting

Agency Roles. The Clean Water Act creates a system of checks and balances in which several agencies have a significant role in the Section 404(b)(1) Guidelines permit application process. The Corps is assigned the lead role as the permitting agency, with direct responsibility for issuing and denying permits. The EPA, the U.S. Fish and Wildlife Service, and state water quality agencies all have important roles as well. The agencies' roles are based on specific provisions in the statute itself.

Corps as Permitting Agency. Section 404(b)(1) Guidelines(a) gives the Corps its authority to issue permits under the program. It also requires the Corps to issue a public notice and provide an opportunity for a public hearing before issuing a permit.

EPA Role in Setting Guidelines. Section 404(b)(1) Guidelines(b) requires the Corps to exercise its permitting authority "through the application of guidelines developed by [EPA], in conjunction with [the Corps]." EPA implemented this requirement by issuing the guidelines, which are codified as regulations in 40 CFR Part 230.

EPA "Veto" Authority. Section 404(b)(1) Guidelines(c) authorizes EPA to prohibit or overturn the issuance of a permit by the Corps under the Section 404(b)(1) Guidelines program. In effect, this section gives EPA a veto power over Section 404(b)(1) Guidelines permits. While the veto is rarely exercised, the existence of this authority gives EPA substantial influence in the permitting process.

USFWS Commenting Role. Section 404(b)(1) Guidelines(m) directs the U.S. Fish and Wildlife Service to submit comments on a Section 404(b)(1) Guidelines permit application within 90 days after receiving notice from the Corps. This commenting role is defined by Section 404(b)(1) Guidelines itself, and is separate from the Service's roles under the Endangered Species Act and other laws.

Agency Coordination and Elevation. Section 404(b)(1) Guidelines(q) directs the Corps to enter into agreements with EPA and other agencies to minimize delays in permitting under Section 404(b)(1) Guidelines. As directed by this section, the Department of the Army has entered Memoranda of Agreement (MOAs) with EPA, the U.S. Department of the Interior, and the U.S. Department of Commerce. The MOAs establish policies and procedures governing the Corps' coordination with EPA, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service. The procedures include a framework for elevating inter-agency disputes regarding Section 404(b)(1) Guidelines permit decisions. This elevation process is known as "Section 404(b)(1) Guidelines(q) elevation."⁷

State Water Quality Certification. Section 401 of the Act requires permit applicants to obtain a certification from the state that a proposed project meets the state's water quality standards; this certification must be obtained before the Corps issues an individual Section 404(b)(1) Guidelines permit.

In sum, while the Corps makes the Section 404(b)(1) Guidelines permit decision, other Federal and state agencies have substantial roles in the Section 404(b)(1) Guidelines permit application process. The result is a process that requires extensive interagency coordination.

6 33 CFR 320.4(a).

7 See, e.g., "Clean Water Act Section 404(b)(1) Guidelines(q) Memorandum of Agreement between the Environmental Protection Agency and the Department of the Army" (Aug. 11, 1992).

The Section 404(b)(1) Guidelines

The first Section 404(b)(1) Guidelines were issued by EPA on an interim basis in 1975. Following amendments to the Act in 1977, EPA updated the guidelines and published them as final regulations in 40 CFR Part 230 on December 24, 1980. The guidelines adopted in December 1980 have remained largely unchanged since that time.

Elements of the Guidelines. Section 230.10 of guidelines establishes four requirements that must be met in order for the Corps to issue a Section 404(b)(1) Guidelines permit. If any one of them is not met, the permit cannot be issued. (For the full text of Section 230.10, refer to Appendix A to this Handbook.) The four requirements include:

- **No Practicable Alternative.** There must be no “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 consequence.”⁸
- **No Violation of Other Laws.** The project cannot be permitted if it (1) “causes or contributes, after consideration of disposal site dilution and dispersion, to violations of any applicable state water quality standard”, (2) “violates any applicable toxic effluent standard or prohibition under section 307 of the Act”; (3) “jeopardizes the continued existence of species listed as endangered or threatened under the Endangered Species Act ... or results in likelihood of the destruction or adverse modification of ... critical habitat”; or (4) “violates any requirement imposed by the Secretary of Commerce to protect any marine sanctuary...”⁹
- **No Significant Degradation.** The project must not “cause or contribute to significant degradation of the waters of the United States.” This section lists criteria to be considered in making a determination of significant degradation. It requires this determination to be based on “appropriate factual determinations, evaluations, and tests.”¹⁰
- **Minimizing Adverse Impacts.** The project must include “appropriate and practicable steps to minimize potential adverse impacts of the discharge on the aquatic ecosystem.”¹¹

Compensatory Mitigation. The four-part test in Section 230.10 requires minimization, but does not explicitly require mitigation. In a 1990 Memorandum of Agreement, the Corps and EPA agreed to require appropriate and practicable mitigation in Section 404(b)(1) Guidelines permits. In March 2008, the Corps and EPA issued updated regulations addressing compensatory mitigation requirements in more detail. The regulations direct the Corps to include “appropriate and practicable” compensatory mitigation conditions in Section 404(b)(1) Guidelines permits. These regulations—known as the “2008 Mitigation Rule”—are included in Subpart J of the guidelines (40 CFR 230.91 to 230.98) and in the Corps’ own regulations at 33 CFR Part 332.

Where Is the LEDPA Requirement?

The term “least environmentally damaging practicable alternative” or “LEDPA” is not actually used in the guidelines. Moreover, it can be somewhat misleading because it implies that the Corps makes a single global assessment of which alternative is “least environmentally damaging.” No such determination is made under the guidelines. The actual requirement, as stated in Section 230.10(a), is that there must be no “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.” This requirement is referred to as the “No practicable alternative” requirement in this Handbook.¹²

Key Terms in the Guidelines. The Section 404(b)(1) Guidelines use several terms and concepts that have specific meanings in the context of these regulations. These include:

- **Practicable.** The term “practicable” means “available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.”¹³ As noted above, the regulations

8 40 CFR § 230.10(a).

9 40 CFR § 230.10(b).

10 40 CFR § 230.10(c).

11 40 CFR § 230.10(d).

12 40 CFR § 230.10(a).

13 40 CFR § 230.10(a)(2).

4 Applying the Section 404(b)(1) Guidelines in Transportation Project Decision-Making

establish a presumption, for non-water-dependent projects, that practicable alternatives are available to avoid aquatic resources.

- **Aquatic Environment and Aquatic Ecosystem.** The terms “aquatic environment” and “aquatic ecosystem” mean “waters of the United States, including wetlands that serve as habitat for interrelated and interacting communities and populations of plants and animals.”¹⁴
- **Special Aquatic Sites.** The term “special aquatic sites” includes “geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region.”¹⁵ The regulations specifically identify the following areas as special aquatic sites: sanctuaries and refuges, wetlands, mud flats, vegetated shallows, coral reefs, and riffle and pool complexes.¹⁶

Presumption of Availability for Non-Water-Dependent Projects. The guidelines create a presumption that practicable avoidance alternatives are available for non-water-dependent projects.¹⁷ A water-dependent project would include facilities such as boat docks, which need to be in or near the water to serve their intended purpose. Highway and transit projects generally are not water-dependent. This presumption places the burden on the applicant to demonstrate that there are no practicable alternatives that entirely avoid aquatic resources. The level of “proof” required will vary depending on the project and the nature of the anticipated impacts.

Flexibility in Applying the Guidelines. The guidelines acknowledge that the level of detail required to demonstrate consistency with the guidelines will vary from case to case. They state that “Although all requirements in § 230.10 must be met, the 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.”¹⁸ This provision makes clear that the required level of effort is not identical for all projects. The fact that more extensive analyses are done for higher-impact, more complex projects does not mean that those same analyses are required for all projects.

Relationship to Other Requirements. Projects that require an individual Section 404(b)(1) Guidelines permit typically require review under other laws as well, including NEPA. Multiple agencies have decision-making roles, and each agency has different legal constraints on its decision-making. A key challenge for practitioners is to integrate all of these requirements into a single process. The following requirements have an important relationship to Section 404(b)(1) Guidelines decision-making:

- **NEPA—Purpose and Need.** The Council on Environmental Quality (CEQ) regulations, which govern Federal agencies’ NEPA compliance, require an EIS to include a statement of the “underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.”¹⁹ The guidelines require the Corps to consider the “overall project purposes” as part of the Corps’ assessment of the practicability of alternatives under Section 404(b)(1) Guidelines. The Corps also has its own independent obligation to comply with NEPA, which includes defining the purpose and need. Obviously, it is desirable to have a purpose statement that satisfies all agencies’ requirements.²⁰ Achieving a single concise purpose statement requires a collaborative effort. The Corps is not required to accept the purpose as defined by the applicant or by another Federal agency.
- **NEPA—Range of Alternatives.** The CEQ regulations require an EIS to include detailed analysis of “all reasonable alternatives.”²¹ The guidelines require the Corps to consider “practicable” alternatives for avoiding or minimizing harm to waters of the U.S. As with the purpose and need, it is desirable to have a single range of alternatives that satisfies NEPA requirements as well as Section 404(b)(1) Guidelines requirements. Developing a range of alternatives that satisfies both NEPA and Section 404(b)(1) Guidelines requires a collaborative effort. Applicants

14 40 CFR § 230.3(b).

15 40 CFR § 230.3(m).

16 40 CFR § 230.3(m) and §§ 230.40 to 230.44.

17 40 CFR § 230.10(a)(3).

18 40 CFR § 230.10.

19 40 CFR § 1502.13.

20 For additional information on how to define the project purpose, see Practitioner’s Handbook No. 7, “Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects.”

21 40 CFR § 1502.14(a). The requirement to consider “all reasonable alternatives” applies to an EIS, not an EA. The alternatives analysis in an EA may consist of a range of alternatives, or may consist of the No Action alternative and a single action alternative.

cannot assume that screening decisions made in the NEPA process will automatically limit the range of alternatives that the Corps considers under Section 404(b)(1) Guidelines.

- **NEPA—Indirect and Cumulative Effects.** NEPA requires consideration of direct, indirect, and cumulative effects.²² The guidelines require the Corps to consider the project’s “secondary effects” on waters of the United States.²³ The guidelines list several examples of secondary effects, including “surface runoff from residential or commercial developments on fill.” There is significant overlap between indirect effects, as defined in NEPA, and “secondary effects” as defined in the guidelines. The guidelines themselves do not require consideration of cumulative effects, but the Corps is required under NEPA to consider indirect and cumulative effects when preparing an EIS. Therefore, indirect and cumulative effects analyses play an important role in the Corps’ decision-making, both because of the Guidelines and because of the Corps’ responsibilities under NEPA.
- **Section 4(f).** Section 4(f) prohibits the U.S. DOT from approving the use of certain parks, recreation areas, refuges, and historic sites, unless there is no “feasible and prudent” avoidance alternative and the project includes “all possible planning to minimize harm” to those resources. The concepts of “prudence” and “practicability” are closely related, but different. Each of these terms has a separate legal definition and related case law. The decision-makers also are different: a U.S. DOT agency determines prudence under Section 4(f), whereas the Corps determines practicability under Section 404(b)(1) Guidelines.
- **Section 7 of ESA.** Section 7 of the Endangered Species Act prohibits Federal agencies from approving an alternative that would jeopardize a Federally listed threatened or endangered species, or that would adversely modify or destroy critical habitat for those species. Section 7 does not require selection of the alternative that causes “least harm” to listed species, but its requirements are nonetheless stringent. Impacts to listed species can play a role in the alternatives analysis under the guidelines. For example, impacts to listed species could be “other significant adverse environmental consequences”—a finding that could justify rejection of an alternative that has the least impact to the aquatic ecosystem.
- **Section 106 of NHPA.** Section 106 of the National Historic Preservation Act requires Federal agencies to identify cultural resources (including resources significant to Indian tribes) and consider ways to avoid or reduce any adverse effects on those resources. An alternative that avoids a Section 106 resource may impact a Section 404(b)(1) Guidelines resource, and vice-versa. Therefore, the Corps considers information developed in the Section 106 process when making its Section 404(b)(1) Guidelines permitting decision.²⁴ At the same time, the Corps’ Section 404(b)(1) Guidelines permitting requirements may influence the decisions reached in the Section 106 process.
- **Coastal Zone Management Act.** The Coastal Zone Management Act requires states to develop management plans for coastal waters, including wetlands in coastal zones. Before a Federal permit can be issued for a project in a coastal zone, the permit applicant must obtain a finding by the state that the project is consistent with the state’s coastal management plan. This finding is commonly known as a “consistency determination.”²⁵ The Corps’ Section 404(b)(1) Guidelines regulations implement this requirement through a multi-step process.²⁶ First, the applicant must certify in its application that the project is consistent with the coastal plan. The Corps announces this proposed finding in its public notice for the permit application, and sends that notice to the state agency with responsibility for the coastal zone plan, requesting its concurrence or objection. If the state agency objects, the Corps generally does not proceed to issue the permit. The U.S. Secretary of Commerce has the authority to override a state’s objection, but that authority is rarely exercised.
- **Bridge Acts.** Federal law prohibits the construction or modification of any bridge across navigable waters of the United States unless first authorized by the Coast Guard. The Coast Guard approves the location, plans and navigational clearances of bridges through the issuance of bridge permits or bridge permit amendments. The applicant for a Coast Guard bridge permit must obtain one of the following before a Coast Guard bridge permit can be issued: (1) a Corps Section 404(b)(1) Guidelines permit, (2) assurance from the Corps that a 404 permit will be issued and a statement regarding the adequacy of wetland mitigation, or (3) documentation from the Corps that a Section 404(b)(1) Guidelines permit is not required if jurisdictional wetlands are involved. Specific bridge acts

22 40 CFR §§ 1502.16, 1508.7, and 1508.8. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by a project but are removed in time or distance. Cumulative effects include the project’s direct and indirect effects, combined with the effects of other actions that are reasonably foreseeable.

23 See 40 CFR § 230.11(h).

24 The Corps’ permitting regulations include procedures for Section 106 compliance. See 33 CFR Part 325, Appendix C.

25 The National Oceanographic and Atmospheric Administration (NOAA) has issued regulations governing coastal zone consistency determinations. These can be found in 15 CFR Part 930.

26 See 33 CFR § 325.2(b)(2).

include Section 9, Rivers and Harbors Appropriations Act of 1899, as amended (33 USC 401); the Act of March 23, 1906, amended (33 USC 491); the General Bridge Act of 1946, amended (33 USC 525); and the International Bridge Act of 1972 (33 USC 535).

- **Executive Orders 11990 and 11988.** Executive Order 11990 (issued May 24, 1977) directs all Federal agencies to “avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds (1) that there is no practicable alternative to such construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.” The Executive Order also states that “In making this finding the head of the agency may take into account economic, environmental and other pertinent factors.” This order gives FHWA an obligation that is closely related to the Corps’ obligations under the Guidelines. The order applies to all wetlands, regardless of whether they fall within the Corps’ jurisdiction. Executive Order 11988 establishes a similar policy for floodplains. FHWA and FTA typically make these findings in their NEPA decision documents.
- **Executive Order 13690.** Executive Order 13690 (issued January 30, 2015) amended E.O. 11988 and established the Federal Flood Risk Management Standard (FFRMS) to improve the Nation’s resilience to current and future flood risks. Executive Order 13690 requires Federal agencies to use a higher vertical flood elevation and corresponding horizontal floodplain when making decisions on Federally funded projects. It also requires Federal agencies to use “natural systems, ecosystem processes, and nature-based approaches” when developing alternatives for a proposed action. In October 2015, the Federal Emergency Management Agency adopted final guidelines implementing Executive Order 13690. The guidelines direct Federal agencies to address compliance with Executive Orders 11988 and 13690 in their NEPA documents.

Procedures for Incorporating Section 404(b)(1) Guidelines Decision-Making with Other Requirements

As described above, Section 404(b)(1) Guidelines is one of many requirements that must be met as part of the environmental review process for transportation projects. One of the most important challenges for practitioners is to devise an appropriate process for integrating the Section 404(b)(1) Guidelines decision-making into the environmental review process as a whole. There is no single required approach for achieving this integration. Some tools for synchronizing these requirements include:

- **Linking Planning and NEPA.** The Federal transportation planning regulations and 23 USC 168 provide a framework for linking the transportation planning process to project-level environmental reviews. Under certain conditions, the regulations allow decisions made in the planning process to be incorporated in subsequent NEPA documents—for example, a decision on purpose and need or the range of alternatives.²⁷ As part of the planning process, transportation agencies may benefit from considering the guidelines and initiating early coordination with the Corps regarding projects (or categories of projects) that may require individual permits. While not required, early consideration of the guidelines may help to avoid delays during project-level studies.
- **Pre-Application Consultation.** The Corps’ regulations recommend that applicants for individual permits engage in pre-application consultation with the Corps to discuss the level of NEPA review required, the information needed for decision-making, other agency reviews and approvals needed, and the overall process to be followed.²⁸ Pre-application consultation is available to all applicants. It is an informal process that varies depending on the nature and complexity of each project.
- **NEPA–Section 404(b)(1) Guidelines Merger Agreements.** Beginning in the late 1980s, FHWA and the Corps entered a number of state-level or regional agreements to “merge” the two agencies’ NEPA, Section 4(f), and Section 404(b)(1) Guidelines processes into a combined process. The merged process includes predefined milestones, known as concurrence points. These typically include purpose and need; range of alternatives; selection of a preferred alternative; and selection of mitigation measures. Merger agreements remain in effect in a few states.
- **Synchronization of NEPA, Section 404(b)(1) Guidelines, and Other Laws.** In 2015, FHWA, the Corps, and other agencies jointly issued a new handbook—known as the *Red Book*—that describes various ways to synchronize compliance with NEPA, Section 404(b)(1) Guidelines and other laws, such as the Endangered Species Act. As

²⁷ The transportation planning regulations and 23 USC 168 provide authority for adopting planning decisions for use in the NEPA process. See 23 CFR Part 450 (sections 450.212, 450.318, and Appendix A) and 23 USC 168. In addition, there is a separate provision in 23 USC 139(f)(4)(E) that allows alternatives screening decisions made in the metropolitan planning process to be adopted by a Federal agency in the NEPA process.

²⁸ 33 CFR 325.1(b).

described in the *Red Book*, the synchronized process includes coordination with the Corps at defined milestones, which are similar to the milestones defined in NEPA-404 merger agreements. The *Red Book* recognizes that it may be beneficial to seek concurrence at each milestone but also recognizes other approaches, including the possibility of seeking comment without requesting concurrence.²⁹

- **Section 139 Environmental Review Process.** Section 139 of Title 23 establishes an environmental review process that is required for all highway, transit, and multimodal projects for which an EIS is prepared. Railroad projects requiring an EIS must comply with Section 139 “to the greatest extent feasible.”³⁰ The environmental review process under Section 139 must include the “process for and completion of any environmental permit, approval, review, or study required for a project under any Federal law other than [NEPA].” Thus, the Corps’ permitting actions must be addressed as part of the Section 139 process. The process requires an “opportunity for involvement” by participating agencies and the public at two milestones: defining the purpose and need, and determining the range of alternatives to be studied. It does not require the lead agencies to seek concurrence at these milestones. As part of the Section 139 process, the Corps normally should be invited to serve as a participating agency in situations where a project has potential impacts to jurisdictional aquatic resources. The Corps also may be designated as a cooperating agency, as described below.
- **Cooperating Agency Designation.** An agency designated as a participating agency under Section 139 may also be designated as a cooperating agency. Under the CEQ regulations, a cooperating agency may assume—at the request of the lead agency—a role in developing information and preparing environmental analyses that are included in an EIS. The Corps normally is invited to serve as a cooperating agency in preparing an EIS if the proposed project will require an individual Section 404(b)(1) Guidelines permit. Cooperating agency designation is another tool for encouraging heightened involvement with the Corps during the NEPA process, in order to minimize the potential for delays when a permit application is filed.

It is important to understand that the choice about how to coordinate the NEPA and Section 404(b)(1) Guidelines processes does not change the underlying NEPA and Section 404(b)(1) Guidelines requirements themselves, nor does it change the authority of each agency involved. Therefore, regardless of whether an agency follows a merger agreement or some other process, a project that requires an individual permit ultimately must satisfy the guidelines.

Key Issues to Consider

Linking the Transportation Planning Process to Project-Level Studies and Decisions

If the transportation planning process is still under way:

- What information is available about the location and type of aquatic resources in the area affected by the plan? How accurate and comprehensive is this information?
- How can the available information be used to support consideration of aquatic resources in planning-level analyses and decisions?
- What opportunities exist in the planning process to avoid, minimize and, if unavoidable, mitigate impacts to aquatic resources?
- How will mitigation be addressed in the planning process, as required by the planning regulations?
- Will a corridor or sub-area study be prepared, as allowed under the planning regulations?

If the transportation planning process has been completed, and the lead agencies in the NEPA process are deciding whether to adopt planning-level analyses or decisions:

- Were potential impacts to aquatic resources considered in the planning process?
- Were environmental mitigation opportunities considered in the planning process? Do these opportunities involve aquatic resources in the vicinity of this project?

²⁹ See FHWA, USFWS, Corps, et al., “Synchronizing Environmental Reviews for Transportation and Other Infrastructure Projects: 2015 Red Book” (Sept. 2015), pp. 9–10.

³⁰ 49 USC 24201.

- Were other agencies and the public involved in the planning-level studies? What was their level of involvement? What concerns were raised and how were they addressed?
- How were the planning-level analyses and decisions documented?

Project Initiation and Scoping

Initial Assessment of Section 404(b)(1) Guidelines Issues

- Based on available information, is an individual Section 404(b)(1) Guidelines permit likely to be needed?
- What existing data (mapping, etc.) is available to identify aquatic resources? Is there a need to gather additional data before beginning to develop alternatives?
- Have other agencies or the public expressed concerns about this project's potential impacts on aquatic resources? What are their specific areas of concern?

Section 139 Compliance Steps (Required for EISs; Optional for EAs)

- Will this project follow the environmental review process required for EIS projects in 23 USC 139 (Section 139): If so:
 - Which agencies will be designated as participating and/or cooperating agencies?
 - How will Section 404(b)(1) Guidelines issues be addressed in the Section 139 coordination plan?
- Is there a NEPA-404 merger agreement that defines required interagency coordination procedures? If so, how does that agreement affect the role of the Corps and other agencies?
- How will the lead agencies coordinate with other agencies regarding the methodologies and level of detail for analyzing impacts to aquatic resources, as required by Section 139?

Approach to Coordinating NEPA and Section 404(b)(1) Guidelines

- When does the applicant intend to file its Section 404(b)(1) Guidelines permit application? What is the desired timing for a Section 404(b)(1) Guidelines permit decision?
- How will the Corps satisfy its own NEPA responsibilities? For example, does the Corps intend to adopt another agency's NEPA document?
- Is there a procedure in place for resolving any inter-agency disputes that may arise during the NEPA process regarding the Section 404(b)(1) Guidelines permit application?

Defining the Project Purpose

- What steps will be taken to involve the Corps in defining the project purpose?
- If Section 139 applies, how will the required "opportunity for involvement" in developing the purpose and need be provided to agencies and the public?
- Are there any significant unresolved issues regarding the project purpose that should be addressed before beginning to develop and screen alternatives?
- What transportation performance measures or other criteria will be used to assess the ability of alternatives to meet the project purpose?

Early Identification and Evaluation of Aquatic Resources

- How accurate and up-to-date is the existing mapping (and other data) regarding the location, type, function, and quality of aquatic resources in the study area?
- Have water quality standards and criteria been established for the aquatic resources in the study area? If not, what standards or criteria will be used as the basis for analyzing impacts and considering mitigation?
- What steps will be taken to identify and map aquatic resources in the study area?

- Have watershed plans or other ecosystem-based plans been developed for the area where this project would be located?
- Is additional work needed to obtain more accurate and up-to-date mapping and other data regarding aquatic resources, before beginning to develop alternatives?
- What level of detail will be necessary for evaluation of the alternatives' impacts to aquatic resources, for purposes of compliance with the Section 404(b)(1) Guidelines?

Developing and Screening Alternatives

- How will the guidelines be considered as part of the alternatives screening process? For example, will alternatives be assessed for "practicability" as defined in the guidelines?
- How will the Corps and other agencies be involved in determining the range of alternatives? Will they be asked to comment on, or concur in, the alternatives screening decisions?
- What screening criteria will be used in the evaluation of alternatives? How will impacts to aquatic resources be addressed as part of those screening criteria?
- How will screening decisions be documented? Will the screening reports or other documentation be sufficient to support the Corps' needs?
- After screening has been completed: Are there any circumstances that might warrant re-consideration of previously eliminated alternatives?

Detailed Study of Alternatives

Wetlands Identification and Functional Assessments

- What is the study area within which wetland resources will be evaluated? How was the scope of analysis determined and how was the rationale documented?
- Are there any methodology issues that need to be resolved before identifying wetlands boundaries and conducting functional assessments? For example, does the study area include unusual types of wetlands?
- What steps will be taken to identify and map aquatic resources in the study area, for the detailed-study alternatives?
- Will the Corps be asked to make preliminary and/or final jurisdictional determinations for multiple alternatives, or only for the preferred alternative? When will those determinations be made?
- How will determinations regarding wetlands boundaries and functions be documented and reviewed? What reports will be prepared and what role will the Corps have in reviewing and commenting on these reports?
- What methodology will be used to assess the quality and functions of the jurisdictional wetlands? How will this qualitative assessment be documented?

Water Quality Characterizations and Assessments

- What water quality assessments are available for the watersheds and streams (perennial and intermittent) within the study area?
- Have water quality standards and criteria been established? If not, what standards or criteria will be used when analyzing impacts and considering mitigation?

Engineering for the Detailed-Study Alternatives

- What level of engineering design will be completed for the alternatives carried forward for detailed study in the NEPA document?
- Will all of the alternatives carried forward for detailed study in the NEPA document be developed to the same or different levels of design detail?
- If there are differences in the level of detail, do they have the potential to affect the Corps' ability to rely on the NEPA document to comply with the guidelines?

Impacts Analysis for the Detailed Study Alternatives

- What standards and criteria will be used to compare the detailed-study alternatives in terms of their relative impacts on the aquatic ecosystem?
- Have the Corps, EPA, and other agencies participated in developing the methodology used for comparing the impacts of the alternatives on jurisdictional aquatic resources?
- If there are disagreements about the methodology to be used, how are they being addressed?

Choosing a Preferred Alternative

- Are all of the detailed-study alternatives assumed to be “practicable”? If some could be dismissed as not practicable, what information is needed to assess “practicability” at this stage of the analysis?
- Do any of the practicable alternatives have “other significant adverse environmental consequences” that should be weighed along with impacts to the aquatic ecosystem?
- At what point in the NEPA process will the preferred alternative be identified?
- Will the Corps sign a concurrence form, submit comments, or take any other action during the NEPA process to indicate that the preferred alternative complies with the guidelines? Will the preferred alternative satisfy each element of the guidelines, including the requirement that the project cause “no significant degradation” to waters of the United States?
- Are there other legal requirements—for example, Section 4(f)—that need to be considered? If so, how will they be reconciled with the requirements of the guidelines?

Avoidance, Minimization, and Compensatory Mitigation

- What steps will be taken throughout the development of alternatives to consider avoidance and minimization of impacts to jurisdictional aquatic resources?
- After a preferred alternative has been identified, what additional efforts will be made to reduce further the impacts of that alternative?
- When and how will potential compensatory mitigation measures be considered?
- Is there an opportunity to use off-site mitigation (including mitigation banks) as a way of meeting compensatory mitigation requirements for the project?

Practical Tips

1 | Linking the Transportation Planning Process to Project-Level Studies and Decisions

The transportation planning process can be used in several ways to support subsequent project-level studies and decisions, including Section 404(b)(1) Guidelines decision-making. Some potential tools are described below. For further information, refer to Practitioner’s Handbook No. 10, “Using the Transportation Planning Process to Support the NEPA Process.”³¹

Consultation with Natural Resource Agencies during the Planning Process. In developing their long-range transportation plans, state departments of transportation must consult with state, tribal, and local agencies responsible for land-use management, natural resources, environmental protection, conservation, and historic preservation. The same requirements apply to MPOs, except that they are not required to consult with tribal agencies. The consultation must involve “comparison of transportation plans with state and tribal conservation plans or maps, if available, and comparison of transportation plans to inventories of natural or historic resources, if available.”³² One effective tool for complying with this requirement is to develop a statewide geographic information systems (GIS) database, with the best available data on aquatic and other environmental resources. By considering aquatic resources early, planners can identify permitting difficulties even before

³¹ All Practitioner’s Handbooks are available on the Center’s web site at <http://environment.transportation.org>.

³² 23 USC §§ 135(f)(2), 134(i)(5).

projects are incorporated in transportation plans. For this early consideration to be effective, planners should be familiar with the requirements of the guidelines.

Early Consideration of Mitigation Opportunities. The transportation planning process requires consideration of “potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan.”³³ This discussion must be developed “in consultation with Federal, state, and tribal wildlife, land management, and regulatory agencies.”³⁴ Early consideration of mitigation (or enhancement) opportunities for aquatic resources does not in any way lessen the need to consider avoidance and minimization alternatives. But by starting the conversation about possible mitigation opportunities, transportation planners can help to build positive working relationships with resource agencies and develop more effective mitigation plans.

Planning–Environmental Linkage (PEL). The transportation planning process can be used to produce a wide range of analyses or decisions for adoption in the environmental review process, including: purpose and need or goals and objective statement(s); general travel corridor and/or general mode(s) definition (e.g., highway, transit, or a highway/transit combination); preliminary screening of alternatives and elimination of unreasonable alternatives; basic description of the environmental setting; and preliminary identification of environmental impacts and environmental mitigation. If this approach is being contemplated for a project that requires a Section 404(b)(1) Guidelines permit, transportation planners should engage the Corps and other agencies early in the process. Ultimately, the streamlining and stewardship benefits of this approach will only be achieved if it is undertaken with the involvement of the Corps and other agencies. Also, under some circumstances, the lead agencies may be required to obtain concurrence from cooperating agencies before adopting planning-level decisions or analyses for use in the NEPA process.³⁵

Integrated Planning (Eco-Logical). On a broader level, transportation planning can be integrated with the development of watershed plans, endangered species recovery plans, land-use plans, and other resource protection and growth plans. Federal environmental and transportation agencies have jointly developed a framework for this type of integrated planning, as documented in the 2006 publication, “Eco-Logical: An Ecosystem Approach to Developing Infrastructure Projects.” The Eco-Logical framework could be used to develop a watershed plan for protecting and restoring aquatic resources. This watershed plan could then be used as a basis for considering avoidance, minimization, and mitigation measures for individual transportation projects in that watershed. This approach is consistent with the 2008 Mitigation Rule (Subpart J of the guidelines), which allows consideration of watershed plans when selecting compensatory mitigation sites for unavoidable impacts to aquatic resources.

Funding for Agency Involvement in Planning. Many state DOTs and MPOs have found that other agencies, including the Corps, are unable to participate extensively in the transportation planning process due to their limited staffs and travel budgets. Section 139 of Title 23 addresses this issue by allowing state DOTs to fund other agencies’ participation in “transportation planning activities that precede the initiation of the environmental review process.”³⁶ Funding also can be provided under this section to create or expand geographic information systems (GIS) mapping and resource inventory databases. Funds may be provided under this section “only to support activities that directly and meaningfully contribute to expediting and improving permitting and review processes, including planning, approval, and consultation processes for the project or program.”

2 | Project Initiation and Scoping

Adequacy of Existing Environmental Data. Early in project development, the lead agencies should consider the adequacy of existing data regarding the location, type, and quality of aquatic resources in the study area. If there are significant data gaps or other shortcomings, it may be necessary to conduct additional research before alternatives are developed and screened. This work could include aerial photography, field checks, remote sensing, records checks, consultation with resource agencies and landowners, or other steps that may help to identify aquatic resources that may not be shown (or may be inaccurately

33 23 USC §§ 134(i)(2)(D), 135(f)(4).

34 Ibid.

35 The transportation planning regulations allow adoption of planning-level decisions or analyses for use in the NEPA process, but do not include a concurrence requirement. See 23 CFR 450.212 and 450.318 Appendix A to Part 450. Section 168 of Title 23 provides an additional source of authority for adopting planning-level decisions or analyses for use in the NEPA process, but it does require concurrence from cooperating agencies that intend to rely upon the NEPA analysis for a permit decision. In addition, Section 139(f)(4)(E) of Title 23 allows adoption of alternatives-screening decisions that were made by an MPO in a metropolitan planning process and also includes a concurrence requirement. Therefore, the need for concurrence may depend on the specific legal authority under which a Federal agency proposes to adopt a planning-level decision or analysis.

36 23 USC § 139(j).

reflected) on existing mapping. The higher the quality of the data available early in the process, the lower the risk of having to modify or re-analyze alternatives.

Water Quality Standards and Criteria. The assessment of impacts on rivers, streams, and other water bodies will be based on the applicable water quality standards for those water bodies, as well as the criteria for measuring compliance with those standards. As a starting point for analyzing those impacts, it is important to identify the applicable standards and criteria (if any) for water bodies that may be affected by the project. These standards and criteria also will be relevant to the development of mitigation measures, if such measures are needed.

Initial Assessment of Potential Aquatic Impacts. Once suitable mapping is available, the lead agencies should make an initial assessment of the project's potential impacts to aquatic resources and the potential implications for the environmental review process. Ideally, these potential impacts will have already been identified at a broad scale in the transportation planning process. But if not, transportation agencies should take a careful look early in the NEPA process at existing data sources to assess the potential for impacts to aquatic resources, including waters of the United States. This initial assessment is important because it provides the basis for determining—at least at a preliminary level—whether an individual Section 404(b)(1) Guidelines permit will be needed.

Compliance with Section 139 Requirements. If a highway or transit project requires a U.S. DOT agency's approval and involves preparation of an EIS, the study must comply with the environmental review process defined in Section 139 of Title 23.³⁷ For projects that require an individual Section 404(b)(1) Guidelines permit, there are several key Section 139 requirements that should be addressed at the outset of the NEPA process:

- **Project Initiation Notice.** Section 139 requires the project sponsor to submit a project initiation notice to the Federal lead agency (FHWA or FTA) at the outset of the NEPA process.³⁸ Among other things, the initiation notice must indicate the Federal permits and approvals that are expected to be required for the project. Therefore, if an individual Section 404(b)(1) Guidelines permit is anticipated, it should be disclosed in the initiation notice, along with permits under the Rivers and Harbors Act and any other permits or approvals needed from Federal agencies.
- **Invitations to Participating and Cooperating Agencies.** Section 139 requires the lead agencies to invite any agencies that may have an interest in the project to be “participating agencies” in the environmental review process. Participating agencies that have an approval role typically also are invited to become “cooperating agencies,” which is a defined term under the CEQ regulations. If an individual Section 404(b)(1) Guidelines permit is likely to be needed, the Corps generally should be invited to be a cooperating agency (as well as a participating agency).
- **Coordination Plan.** Section 139 requires the lead agencies to develop a coordination plan, which defines the process to be used for completing not only the NEPA study but also the other required environmental reviews, permits, and approvals. If an individual Section 404(b)(1) Guidelines permit is likely to be needed, the lead agencies should consider how to address Section 404(b)(1) Guidelines permitting in the coordination plan. In some cases, the coordination plan will simply note the need for a Section 404(b)(1) Guidelines permit. In others, it may be appropriate to define in more detail the specific steps that will be taken to coordinate Section 404(b)(1) Guidelines permitting decision-making with other steps in the environmental review process.
- **Schedule for NEPA and Permitting.** Section 139 requires inclusion of a schedule in the coordination plan, with concurrence of all participating agencies. As defined in Section 139, the schedule should include key milestones in the environmental review process, including required permits. Preparing this schedule can help to illustrate the timing of each agency's actions in relation to the others. One key issue to address in the schedule is the timing of the Corps' decision-making: Is the project sponsor anticipating that a permit decision will be made close in time to FHWA's decision, or that the permit decision will be made much later? Developing a complete schedule can help to clarify these issues and align agency expectations.
- **Methodology and Level of Detail.** Section 139 requires the lead agencies to determine appropriate methodologies and level of detail for analysis in the EIS, in collaboration with participating agencies. This collaborative effort requires engagement, but not concurrence; it can take place during scoping, but is not required to occur at a specific point in the environmental review process. If an individual Section 404(b)(1) Guidelines permit is likely to be needed, the lead agencies should consider engaging the Corps (and other agencies) in early discussions about the methodologies that will be important later in the process when applying the guidelines—for example, the approach

³⁷ All highway, transit, and multimodal projects for which an EIS is prepared must follow the environmental review process defined in 23 USC 139. Railroad projects requiring an EIS must comply with Section 139 “to the greatest extent feasible.” See 23 USC 139(b); 49 USC 24201(a).

³⁸ As used in this Handbook, the term “Federal lead agency” includes any states that have assumed U.S. DOT responsibilities under a NEPA assignment program (23 USC 326 to 327).

to identifying and evaluating jurisdictional waters, and the criteria for determining which alternatives cause the least harm to the aquatic ecosystem.

NEPA–Section 404(b)(1) Guidelines Mergers. Several states continue to follow NEPA-Section 404(b)(1) Guidelines merger agreements, under which the transportation agencies seek formal written concurrence from the Corps and other agencies at specified milestones. If a merger agreement applies, it will define (often in considerable detail) the specific steps to be followed to coordinate Section 404(b)(1) Guidelines permitting with NEPA requirements. Practitioners in those states should be familiar with the requirements under those agreements.

3 | Defining the Project Purpose

“Overall Project Purposes” under Section 404(b)(1) Guidelines. The project purpose is important in Section 404(b)(1) Guidelines decision-making because it is one of the key elements considered in determining whether an alternative is practicable. The 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.”³⁹ This definition directs the Corps to weigh an alternative’s ability to achieve the project purpose, along with other factors, when determining whether an alternative is practicable. If the project purpose is not clearly defined, disputes regarding the practicability of avoidance alternatives become far more likely.

Corps Approach to Determining Project Purpose. In its capacity as the Section 404(b)(1) Guidelines permitting agency, the Corps makes its own independent decision about how to define the project purpose. The Corps’ regulations recognize that there may be a distinction between an applicant’s own objectives and the activity’s “underlying purpose and need from a broader public interest perspective.”⁴⁰ The Corps considers a project’s purpose from both perspectives. According to the regulations, “while generally focusing on the applicant’s statement, the Corps, will in all cases, exercise independent judgment in defining the purpose and need for the project from both the applicant’s and the public’s perspective.”⁴¹ This regulation underscores the importance of involving the Corps in defining the purpose and need when an individual Section 404(b)(1) Guidelines permit is needed.

CEQ Guidance Regarding Purpose and Need. While the Corps has independent authority to define purpose and need for purposes of its permitting decision, the CEQ has encouraged the Corps (and other permitting agencies) to show “substantial deference” to the purpose and need as defined by U.S. DOT for highway and transit projects.⁴² In joint guidance, FHWA and FTA noted that “substantial deference” means that other Federal agencies “should only raise questions regarding our purpose and need statements when those questions relate to substantive or procedural problems (including omission of factors) important to that agency’s independent legal responsibilities.”⁴³

“Opportunity for Involvement” in Purpose and Need. As part of the Section 139 process, the lead agencies must provide participating agencies and the public with an “opportunity for involvement” in defining the purpose and need. This step provides an early opportunity to determine whether there are significant disagreements between transportation agencies and the Corps (or others agencies) regarding the project’s purpose and need. Even for projects that are not subject to Section 139, this type of engagement can be a valuable step because it helps identify any differences of opinion regarding the purpose and need early in the process. For additional information on resolving disagreements among agencies, see Practical Tips, Part 9, Dispute Resolution Procedures.

Criteria for Evaluating Ability to Meet Purpose and Need. Even when agencies agree on a project’s basic purposes, there can be significant disagreements about which alternatives meet those purposes. For example, highway projects often are proposed to address congestion problems. Establishing the existence of the congestion need may be relatively straightforward. The more challenging issue often involves determining how much improvement is needed in order for an alternative to meet the project purpose. Evaluation criteria can help to provide a framework for making this judgment. When an individual Section 404(b)(1) Guidelines permit is needed, it is important to engage the Corps as these evaluation criteria are developed.

³⁹ 40 CFR § 230.10(a)(2).

⁴⁰ 33 CFR Part 325, App. B, Section 9(b)(4).

⁴¹ 33 CFR Part 325, App. B, Section 9(b)(4).

⁴² Letter from J. Connaughton, Chairman, CEQ, to N. Mineta, Secretary, U.S. DOT (May 12, 2003).

⁴³ Memorandum from M. Peters, FHWA Administrator, and J. Dorn, FTA Administrator, to FHWA Division Administrators and FTA Regional Administrators, “Guidance on ‘Purpose and Need’” (July 23, 2003) (“FHWA and FTA should be given ‘substantial deference’ when identifying the transportation purposes and needs that are at issue”).

For additional information on defining purpose and need, please refer to Practitioner’s Handbook No. 7, “Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects.”

4 | Identifying and Evaluating Aquatic Resources

Mapping Aquatic Resources. Section 230.10(a) in the guidelines requires a comparison of alternatives, under which practicable alternatives are ranked based on their relative impacts to the aquatic ecosystem. In many cases, the differences among alternatives are relatively small—measured in a few acres, or even fractions of acres. Given the mandate to minimize harm, even small differences in impacts to aquatic resources can be significant under the Guidelines. Therefore, it is important to give careful consideration to the underlying data that will be used for developing and comparing alternatives at each stage of the analysis. Especially when a study area is very large, practitioners should be alert for any inconsistencies in the way aquatic resources were mapped in different parts of the study area; inconsistencies in the mapping can lead to a misleading comparison of the relative impacts of different alternatives.⁴⁴

Assessing Jurisdictional Status of Aquatic Resources. In an ideal world, agencies would have complete mapping showing the exact boundaries of all aquatic resources within the study area at the outset of the NEPA process. In practice, the identification and evaluation of aquatic resources is usually a gradual process, with the level of detail (and the degree of certainty) increasing as the range of alternatives under consideration decreases. In broad terms, the key stages include:

- **Development and Screening of Alternatives.** Existing data—e.g., National Wetlands Inventory (NWI) mapping and state stream data—is generally acceptable for scoping and for the initial development and screening of alternatives. In some cases, where there are obvious data gaps or data quality concerns, some additional work is needed at the outset of the study to provide an informed basis for developing and screening alternatives.
- **Comparison of Detailed-Study Alternatives.** Once alternatives have been selected for detailed study, field investigations typically are needed to develop more detailed information about the jurisdictional status of aquatic resources in the study area. To the extent possible, Corps and other agency staff should participate in field visits and review proposed findings regarding jurisdictional status of wetlands and streams. At this stage, applicants generally do not request the Corps to approve jurisdictional determinations, but rather ask for the Corps’ acceptance of the proposed wetland and stream jurisdictional determinations as the basis for comparing alternatives. In some cases, applicants may request preliminary or final jurisdictional determinations by the Corps for multiple alternatives, in order to better evaluate their relative impacts to aquatic resources.
- **Permit Application.** For the Section 404(b)(1) Guidelines permit application itself, an applicant must obtain either an approved (final) jurisdictional determination or a preliminary jurisdictional determination, which can be issued under Regulatory Guidance Letter 08-02. It generally is less time-consuming and data-intensive to obtain a preliminary jurisdictional determination.

Functional/Qualitative Assessments. The comparison of impacts to aquatic resources takes into account the quality and function, not just the quantity, of the resources that are impacted. Thus, in addition to identifying the boundaries of jurisdictional waters, it is necessary to characterize those waters in terms of their type, quality, and function. Approaches to qualitative assessment vary greatly among projects and among states. Practitioners should be alert to this issue and make sure there is a clear understanding with the Corps and other agencies regarding the methods to be used for qualitative/functional assessments of jurisdictional waters. This is a key factor in comparing impacts to aquatic resources because a difference in quality/function can outweigh a difference in the quantity of impact—but only if the difference in quality/function is well-documented and based on a consistent methodology.

5 | Developing and Screening Alternatives

Early Consideration of Avoidance and Minimization. By considering possible avoidance and minimization strategies early in the NEPA process, it may be possible to make refinements that entirely avoid the need for a Section 404(b)(1) Guidelines permit, or that allow the project to qualify for a nationwide permit or a regional general permit. If impacts can be reduced to the point that an individual Section 404(b)(1) Guidelines permit is not required, there is an environmental benefit—lower impacts—as well as a process streamlining benefit.

⁴⁴ Where available, multiple data sources should be used when determining the locations of aquatic resources (e.g., National Wetland Inventory (NWI) maps, soil maps, topographical maps, and, if available maps developed used infrared photography, satellite images, or LiDAR). Avoiding reliance on a single data source can help to improve overall accuracy and consistency, which allows for a more reliable assessment of the alternatives’ relative impacts on aquatic resources.

Consideration of Section 404(b)(1) Guidelines in Screening Process. When an individual Section 404(b)(1) Guidelines permit will be needed, the requirements of the guidelines should be considered as part of the alternatives screening process. This means that alternatives should be assessed not only to determine whether they are “reasonable” under NEPA, but also to determine whether they are “practicable” under Section 404(b)(1) Guidelines. The two standards are similar, but practicability has a specific legal definition in the guidelines. In addition, the judgment of practicability is ultimately made by the Corps. Therefore, it is prudent to coordinate closely with the Corps during the screening process when an individual Section 404(b)(1) Guidelines permit will be needed. The Section 139 process provides a framework for this coordination as described below.

“Opportunity for Involvement” in Screening Decisions. As part of the Section 139 process, the lead agencies must provide participating agencies and the public with an “opportunity for involvement” in determining the range of alternatives to be studied in detail in the NEPA document. Along with coordination on Purpose and Need, this step is intended to bring any major disagreements among agencies into the open, rather than allowing them to linger unresolved until a permit application is actually filed. This step is especially important when a project requires an individual Section 404(b)(1) Guidelines permit. If there are strong differences of opinion among agencies about a project, they often become manifest in conflicts over the elimination of alternatives at the screening stage. For additional information on resolving disagreements among agencies, see Practical Tips, Part 9, Dispute Resolution Procedures.

Documenting Screening Decisions. The results of the alternatives screening process should be thoroughly documented in the project record. For complex projects, it is advisable to prepare an alternatives screening technical report, with the results summarized in the NEPA document itself. Thorough documentation is needed not only for NEPA purposes, but also to provide the underpinning for the Corps’ decision-making under Section 404(b)(1) Guidelines. Practitioners should recognize that the Corps may require additional documentation for its purposes, in order to support a finding that an alternative is not practicable. As a practical matter, it is usually most efficient to ensure that this information is developed in “real time” as part of the NEPA screening process, rather than attempting to develop additional documentation when a permit application is filed.

Potential Need to Re-Analyze Screening Decisions. Under both NEPA and Section 404(b)(1) Guidelines, it may be necessary to re-analyze alternatives screening decisions after the screening process has been completed—sometimes long afterward. Screening decisions should be re-analyzed when new information becomes available that has the potential to undermine, or call into question, the basis for eliminating alternatives. For example, if an alternative was rejected as too costly, but the cost estimates have risen for the other alternatives, it may be necessary to go back and update the cost estimates for the rejected alternative—and find out if it is still too costly. On this point, courts have cautioned that agencies should not just rely on inference; they should include actual analysis in the record to demonstrate that the previous screening decisions remain valid.⁴⁵

6 | Detailed Study of Alternatives

If an individual Section 404(b)(1) Guidelines permit is likely to be needed, it is prudent to make sure that the NEPA document presents enough information for the Corps to assess compliance with the Guidelines. The guidelines should be considered when deciding the level of engineering detail, the methods for estimating impacts, and the methods for estimating costs.

Level of Engineering Detail. The engineering for the alternatives generally should be developed to a comparable level of detail, allowing for an “apples to apples” comparison of their impacts. The level of design detail developed for the NEPA document will vary from project to project, but as a general rule, alternatives that impact aquatic resources should include reasonable efforts to avoid and minimize impacts to those resources (rather than presenting a “worst-case” version of each alternative). In particular, practitioners should give substantial consideration to roadway design at wetland and stream crossings to determine appropriate bridge lengths and other features. These design decisions greatly affect the impacts of the alternatives, both in absolute and relative terms. Given the importance of these decisions, it is advisable to coordinate directly with the Corps (and other agencies) with regard to design decisions in areas within jurisdictional waters. This approach will help to ensure that the NEPA document provides a reliable basis for comparing the relative impacts of the alternatives on the aquatic ecosystem.

Impacts to the Aquatic Ecosystem. The guidelines require a comparative assessment of alternatives’ impacts on the aquatic ecosystem. In some cases, this comparison is presented simply by comparing the total acres of wetlands impacts and total linear feet of stream impacts for each alternative. In others, a more detailed breakdown is provided. For example, impacts could be broken down into sub-categories based on type of wetlands, type of streams, or other factors. Qualitative ratings could be used to further subdivide impacts. The type of data presented, and the manner in which it is presented, can greatly

⁴⁵ *Utahns for Better Transportation v. U.S. DOT*, 305 F. 3d 1152, 1165-66 (10th Cir. 2002).

influence the perception of relative impacts to the aquatic ecosystem. The basic approach to presenting this data should be resolved early in the study, with input from the Corps.

Impacts to Other Resources. As mentioned above, the guidelines allow selection of an alternative that has greater impacts to the aquatic ecosystem if the alternative with lower impacts to the aquatic ecosystem has “other significant adverse environmental consequences”. Therefore, a wide range of impacts—not just impacts to the aquatic ecosystem—may be relevant to the Corps’ decision-making under Section 404(b)(1) Guidelines. Practitioners should focus in particular on trade-offs between the aquatic ecosystem and other resources, because those trade-offs could play a key role in Section 404(b)(1) Guidelines decision-making. For example, if the alternative that reduces impacts to wetlands and streams would have greater impacts to endangered species, the NEPA document should clearly document the trade-off between those two types of impacts.

Cost Estimates. Cost is one of the factors that the Corps considers when assessing practicability under the guidelines. The NEPA document typically includes cost estimates for each of the detailed-study alternatives. To ensure that this information is adequate for the Corps’ decision-making, practitioners should make sure that cost estimates presented in the NEPA document include all major elements of project costs, not just construction cost; and that they are developed to a comparable level of detail for all alternatives. Cost estimates in the NEPA process are inherently somewhat tentative and often change considerably later in the process. But because costs can play a key role in Section 404(b)(1) Guidelines decision-making, it is prudent to make sure cost estimates in the NEPA document are as complete and up-to-date as possible.

Discussion of the Guidelines in the NEPA Document. The guidelines clearly play a major role in decision-making in the NEPA process, and may even be the determining factor in the selection of the preferred alternative. Given their importance, it is prudent to summarize the key elements of the guidelines in the NEPA document and explain how those factors have been or will be addressed. It also is important to make clear that the decision-making responsibility under Section 404(b)(1) Guidelines rests with the Corps, not with FHWA or FTA. If the Corps has submitted comments supporting the preferred alternative, or otherwise indicating its agreement with analysis presented in the NEPA document, those comments should be summarized or referenced. But the drafters of the NEPA document should avoid implying that the Corps has made a final decision. The Corps’ final decision will be made only when a permit is issued, which typically is after the NEPA process is concluded.

7 | Choosing a Preferred Alternative and Ensuring Compliance with the Guidelines

As described earlier, the guidelines establish four major requirements that must be satisfied in order for a Section 404(b)(1) Guidelines permit to be issued. These four requirements should be considered when selecting a preferred alternative, in order to avoid delays when a permit application is filed:

- **No Practicable Alternative.** There must be no “practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem,” unless that other alternative has “other significant adverse environmental consequence.”
- **No Violation of Other Laws.** The preferred alternative must not cause a violation of the water quality standards or toxic effluent standards, jeopardize a threatened or endangered species, or violate requirements imposed to protect a marine sanctuary.
- **No Significant Degradation.** The preferred alternative must not cause or contribute to significant degradation of waters of the United States. The regulation lists factors to consider in making this determination, including cumulative impacts to fish, wildlife, and ecosystem diversity.
- **Minimization of Adverse Impacts.** The preferred alternative must include “appropriate and practicable steps...to minimize the adverse impacts of the discharge on the aquatic ecosystem.”

In addition, the Corps conducts a public-interest review pursuant to its own permitting regulations, which includes a broad consideration of project impacts and benefits. The public-interest determination involves a comprehensive assessment, based on criteria listed in the Corps’ regulations.

The following sections describe each of the four major requirements of the guidelines, as well as the Corps’ approach to making public-interest determinations. Applicants should carefully consider all of these factors when selecting a preferred alternative.

The “No Practicable Alternative” Requirement. This element of the guidelines calls for a three-part determination:

- Is the alternative “practicable”?
- If it is practicable, does it cause “less adverse impact to the aquatic ecosystem” than other alternatives?
- If it is practicable and causes less adverse impact to the aquatic ecosystem, does it have “other significant adverse environmental consequences”?

1. “Practicability.” 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.” (40 CFR § 230.3(q)). As with many other legal standards, the definition of “practicable” leaves substantial room for interpretation. It is not possible to reduce an analysis of practicability to a simple formula or computation; case-by-case judgments are required.

However, some general lessons can be gleaned from the guidelines, case law, and practice:

- **Cost.** The Corps has not established a “bright line” for determining how much additional cost is required to support a finding that an alternative is not practicable. The Corps makes a case-by-case judgment, weighing the additional cost along with other factors. If cost is being used as a factor, it is important to make sure the cost estimates are well-supported. In some cases, it may be necessary to perform additional design work on alternatives, specifically to develop cost estimates that can be relied upon in Section 404(b)(1) Guidelines decision-making.
- **Logistics.** There is no definition of “logistics” in the guidelines, nor have the Corps or EPA issued guidance defining this term. However, the U.S. Court of Appeals for the 10th Circuit has held that relocations can be considered when assessing logistics, as well as when assessing cost.⁴⁶ Under this court decision, the social impacts associated with relocating homes and businesses can be considered in their own right, as part of the “logistics” element of practicability, not just as an aspect of cost.
- **Overall Project Purposes.** The Corps is responsible for determining the “overall project purposes.” If the Corps is involved in defining the purpose and need, the Corps can ensure that the purpose and need and the overall project purposes are the same. If the Corps is not satisfied with the purpose and need as defined by another Federal agency, the Corps has the authority to define the “overall project purposes” as it sees fit for Section 404(b)(1) Guidelines decision-making. The requirement to consider this factor underscores the benefits of reaching agreement with the Corps early in the process on a statement of project purposes.
- **What About Impacts to Other Environmental Resources?** The definition of “practicable” does not expressly allow for consideration of impacts to other environmental resources (e.g., endangered species) when evaluating practicability. In general, environmental impacts are considered not as part of the practicability assessment, but rather as part of a separate determination—i.e., does the alternative (even if practicable) have “other significant adverse environmental consequences”? This factor is further addressed below.

2. “Less Adverse Impact to the Aquatic Ecosystem.” The term “aquatic ecosystem” is defined in the guidelines to include “waters of the United States, including wetlands, that serve as habitat for interrelated and interacting communities and populations of plants and animals.” (40 CFR 230.3(c)) Based on this definition, the guidelines require a judgment about the relative impact of the alternatives on jurisdictional waters—i.e., waters of the United States, not just aquatic resources in general. This comparison is not necessarily based on a simple comparison of acreage impacts; the quality and function of the aquatic resources impacted may also play an important role. Methods for comparing aquatic resources impacts should be resolved early in the study, with input from the Corps.

3. “Other Significant Adverse Environmental Consequences.” If an alternative is practicable and causes the least harm to the aquatic ecosystem, it can still be rejected if it causes other significant adverse environmental impacts. For example, if the alternative that has the least impacts to the aquatic ecosystem would disturb endangered species habitat, that impact on endangered species could be considered an “other significant adverse environmental consequence.” If so, that would be a basis for eliminating the alternative. This point is important, because it means that impacts to other environmental resources are relevant in Section 404(b)(1) Guidelines decision-making as a distinct factor, separate from the assessment of practicability, and separate from the assessment of impacts to the aquatic ecosystem.

⁴⁶ *Utahns for Better Transportation v. U.S. DOT*, 305 F. 3d 1152 (10th Cir. 2002) (“Impact on existing development would appear to fall within both the cost and the logistics portion of the practicable definition.”)

No Violation of Other Laws. A Section 404(b)(1) Guidelines permit cannot be issued for a project if it (1) “causes or contributes, after consideration of disposal site dilution and dispersion, to violations of any applicable state water quality standard”, (2) “violates any applicable toxic effluent standard or prohibition under section 307 of the Act”; (3) “jeopardizes the continued existence of species listed as endangered or threatened under the Endangered Species Act...or results in likelihood of the destruction or adverse modification of...critical habitat”; or (4) “violates any requirement imposed by the Secretary of Commerce to protect any marine sanctuary...” 40 CFR § 230.10(b). These requirements typically are satisfied by obtaining Section 401 water quality certification from the state and, if necessary, completing the Section 7 consultation process under the ESA.

No Significant Degradation. A Section 404(b)(1) Guidelines permit cannot be issued if it would “cause or contribute to significant degradation” of waters of the United States. This is an absolute requirement: it does not include any exception allowing the Corps to issue a permit despite a finding of significant degradation. The regulation lists four types of activities that are considered to contribute to “significant degradation”:

1. Significantly adverse effects of the discharge of pollutants on human health or welfare, including but not limited to effects on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites.
2. Significantly adverse effects of the discharge of pollutants on life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, and spread of pollutants or their byproducts outside of the disposal site through biological, physical, and chemical processes;
3. Significantly adverse effects of the discharge of pollutants on aquatic ecosystem diversity, productivity, and stability. Such effects may include, but are not limited to, loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy; or
4. Significantly adverse effects of discharge of pollutants on recreational, aesthetic, and economic values.

This requirement is sometimes overlooked by applicants, but it can play an important role in Section 404(b)(1) Guidelines decision-making. It is prudent for applicants to address this issue early in the process, if any alternatives under consideration have the potential to cause significant degradation to waters of the United States.

Minimization of Adverse Impacts. A Section 404(b)(1) Guidelines permit cannot be issued unless “appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem.” As long as appropriate minimization measures have been incorporated into all alternatives, this requirement itself generally has little, if any, direct bearing on the selection of a preferred alternative. However, this requirement may greatly influence the cost of an alternative, and the cost considerations themselves may influence the choice among the alternatives. For that reason, applicants should take appropriate steps to incorporate minimization (as well as mitigation) measures as alternatives as they are being developed, prior to selection of a preferred alternative.

Public Interest Determination. The requirement for a public-interest determination arises not from the guidelines themselves, but from the Corps’ own regulations governing all Department of the Army permit evaluations—including Section 404(b)(1) Guidelines permits and permits issued under Sections 9 and 10 of the Rivers and Harbors Act. The requirement for a public-interest determination gives the Corps a basis for undertaking a broad assessment of the benefits and impacts of the project as a whole. The regulations state that:

The 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. Evaluation of the probable impact which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome of this general balancing process. That decision should reflect the national concern for both protection and utilization of important resources. All factors which may be relevant to the proposal must be considered including the cumulative effects thereof: among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, 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. For activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency’s 404(b)(1) Guidelines. Subject to the preceding sentence and any other applicable

guidelines and criteria (see §§320.2 and 320.3), a permit will be granted unless the district engineer determines that it would be contrary to the public interest.⁴⁷

8 | Avoidance, Minimization, and Compensatory Mitigation

Avoidance and Minimization. In 1990, the Corps and EPA entered into a Memorandum of Agreement regarding compliance with the guidelines, including the determination of appropriate compensatory mitigation. This MOA established a sequential approach to decision-making, requiring applicants to first avoid and minimize impacts to the maximum extent practicable and then provide compensatory mitigation for those impacts that are unavoidable. The sequential approach established in that MOA remains a guiding principle for the Section 404(b)(1) Guidelines analysis and decision-making. Applicants should follow this approach in every stage of project development, by systematically considering avoidance and minimization opportunities as alternatives are being identified, developed, and refined.

Timing of Mitigation Discussions. When it is clear from the outset that a project will involve impacts to waters of the United States, it is prudent to begin considering mitigation strategies and opportunities early in the NEPA process. Early consideration of mitigation does not mean giving any less emphasis to avoidance and minimization. It is simply a reflection of the reality that, on some projects, there will be impacts to jurisdictional waters, and those impacts must be offset via mitigation. By considering mitigation early, the project sponsor may be able to develop well-defined mitigation strategies, potentially including specific mitigation sites, while the NEPA process is still under way. This information can contribute to informed decision-making in the NEPA process and can help to minimize delays during the Section 404(b)(1) Guidelines permit evaluation process.

Watershed Approach. The 2008 Mitigation Rule encourages a watershed and ecosystem-based approach to identifying compensatory mitigation measures for inclusion in Section 404(b)(1) Guidelines permits. This approach allows greater flexibility for applicants to meet their mitigation requirements with off-site mitigation. The rule also clarifies the process for using mitigation banks. Especially where watershed plans have been developed, applicants should carefully consider the potential to propose off-site mitigation that is consistent with the overall objectives of the watershed plan. Even where a watershed plan has not been adopted, it may be possible to reach agreement with the Corps on off-site mitigation if the mitigation is developed consistent with a watershed or ecosystem-based approach.

9 | Dispute Resolution Procedures

Through close coordination and collaborative decision-making, transportation and environmental agencies can resolve the majority of permitting issues without the need for any formal dispute resolution process. At times, however, it is necessary for disagreements to be elevated to higher-level decision-makers. The primary process for resolving disputes among Federal agencies under the guidelines is the process established under Section 404(b)(1) Guidelines(q) of the Clean Water Act. A separate process also is available under Section 139 of Title 23. The Section 139 process can be invoked by “a Federal agency of jurisdiction, the project sponsor, or the Governor of a state in which a project is located.”

Section 404(b)(1) Guidelines(q) Elevation. As noted in the Background Briefing section, Section 404(b)(1) Guidelines(q) of the Clean Water Act directs the Corps to enter into agreements within EPA and other agencies to minimize delays in permitting under Section 404(b)(1) Guidelines. This section provided the basis for memoranda of agreement that provide for the elevation of permitting disputes involving the Corps, EPA, the U.S. Department of the Interior (including the U.S. Fish and Wildlife Service), and the U.S. Department of Commerce (including the National Marine Fisheries Service). This dispute resolution process is commonly known as “Section 404(b)(1) Guidelines(q) elevation.”⁴⁸ The process involves a sequence of steps, which elevate disputes through each agency’s chain of command with the goal of resolving the issue at the lowest level possible. The use of Section 404(b)(1) Guidelines(q) elevation is not rare, but most are resolved prior to reaching high levels of command. It is the *potential* for elevation that encourages all involved agencies to actively engage early in the process to resolve any disputes involving interpretations of the various statutes and regulations, including interpretations of the guidelines. Both policy issues and project-specific issues can be elevated under this MOA.⁴⁹

Section 139 Issue Resolution. Section 139 of Title 23 establishes an “issue resolution” process that can be invoked by a Federal agency of jurisdiction, a project sponsor, or the Governor of the state in which the project is located. It does not take

⁴⁷ 33 CFR § 320.4(a) (emphasis added).

⁴⁸ This Memorandum of Agreement is available on the Center’s web site at <http://environment.transportation.org> and are listed in the Reference Materials section for this Practitioner’s Handbook.

⁴⁹ Further information about Section 404(b)(1) Guidelines(q) elevation is available on the Center’s web site at <http://environment.transportation.org> and are listed in the Reference Materials section for this Practitioner’s Handbook.

the place of Section 404(b)(1) Guidelines(q) elevation, but provides a means for the project sponsor to seek resolution of issues that could delay or prevent issuance of necessary approvals, including Section 404(b)(1) Guidelines permit decisions. This process can be invoked when a participating agency raises an “issue of concern,” which is defined as an issue that could result in the substantial delay or denial of any required permits or approvals. This process also can be invoked in other circumstances. For more information on issue resolution under the Section 139 process, refer to Practitioner’s Handbook No. 9, “Using the SAFETEA-LU Environmental Review Process (23 USC § 139).”

Appendix A—Text of 40 CFR § 230.10

The following (including the italicized note) is the full text of 40 CFR § 230.10:

§230.10 Restrictions on Discharge

Note: Because other laws may apply to particular discharges and because the Corps of Engineers or state 404 agency may have additional procedural and substantive requirements, a discharge complying with the requirement of these guidelines will not automatically receive a permit.

Although all requirements in §230.10 must be met, the 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.

- (a) Except as provided under section 404(b)(2), no 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.
- (1) For the purpose of this requirement, practicable alternatives include, but are not limited to:
 - (i) Activities which do not involve a discharge of dredged or fill material into the waters of the United States or ocean waters;
 - (ii) Discharges of dredged or fill material at other locations in waters of the United States or ocean waters;
 - (2) An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. If it is otherwise a practicable alternative, an area not presently owned by the applicant which could reasonably be obtained, utilized, expanded or managed in order to fulfill the basic purpose of the proposed activity may be considered.
 - (3) Where the activity associated with a discharge which is proposed for a special aquatic site (as defined in subpart E) 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. In addition, where 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.
 - (4) For actions subject to NEPA, where the Corps of Engineers is the permitting agency, the analysis of alternatives required for NEPA environmental documents, including supplemental Corps NEPA documents, will in most cases provide the information for the evaluation of alternatives under these guidelines. On occasion, these NEPA documents may address a broader range of alternatives than required to be considered under this paragraph or may not have considered the alternatives in sufficient detail to respond to the requirements of these guidelines. In the latter case, it may be necessary to supplement these NEPA documents with this additional information.
 - (5) To the extent that practicable alternatives have been identified and evaluated under a Coastal Zone Management program, a section 208 program, or other planning process, such evaluation shall be considered by the permitting authority as part of the consideration of alternatives under the guidelines. Where such evaluation is less complete than that contemplated under this subsection, it must be supplemented accordingly.
- (b) No discharge of dredged or fill material shall be permitted if it:
- (1) Causes or contributes, after consideration of disposal site dilution and dispersion, to violations of any applicable state water quality standard;

- (2) Violates any applicable toxic effluent standard or prohibition under Section 307 of the Act;
 - (3) Jeopardizes the continued existence of species listed as endangered or threatened under the Endangered Species Act of 1973, as amended, or results in likelihood of the destruction or adverse modification of a habitat which is determined by the Secretary of Interior or Commerce, as appropriate, to be a critical habitat under the Endangered Species Act of 1973, as amended. If an exemption has been granted by the Endangered Species Committee, the terms of such exemption shall apply in lieu of this subparagraph;
 - (4) Violates any requirement imposed by the Secretary of Commerce to protect any marine sanctuary designated under title III of the Marine Protection, Research, and Sanctuaries Act of 1972.
- (c) Except as provided under Section 404(b)(1) Guidelines(b)(2), no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of the waters of the United States. Findings of significant degradation related to the proposed discharge shall be based upon appropriate factual determinations, evaluations, and tests required by subparts B and G, after consideration of subparts C through F, with special emphasis on the persistence and permanence of the effects outlined in those subparts. Under these guidelines, effects contributing to significant degradation considered individually or collectively, include:
- (1) Significantly adverse effects of the discharge of pollutants on human health or welfare, including but not limited to effects on municipal water supplies, plankton, fish, shellfish, wildlife, and special aquatic sites.
 - (2) Significantly adverse effects of the discharge of pollutants on life stages of aquatic life and other wildlife dependent on aquatic ecosystems, including the transfer, concentration, and spread of pollutants or their byproducts outside of the disposal site through biological, physical, and chemical processes;
 - (3) Significantly adverse effects of the discharge of pollutants on aquatic ecosystem diversity, productivity, and stability. Such effects may include, but are not limited to, loss of fish and wildlife habitat or loss of the capacity of a wetland to assimilate nutrients, purify water, or reduce wave energy; or
 - (4) Significantly adverse effects of discharge of pollutants on recreational, aesthetic, and economic values.
- (d) Except as provided under Section 404(b)(1) Guidelines(b)(2), no 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.

Reference Materials

Statutes, regulations, and guidance documents cited in this Handbook are available on the Center for Environmental Excellence by AASHTO web site: <http://environment.transportation.org>.

Section 404(b)(1) Guidelines(b)(1) Policy and Guidance

USACE, "Regulatory Guidance Letter 08-02, Jurisdictional Determinations" (June 26, 2008).

USACE, Seattle, "Alternative Analysis Guidance" (2003).

USACE, Fort Worth, "Preparing An Alternatives Analysis Under Section 404(b)(1) Guidelines of the Clean Water Act" (Nov. 2014).

Clean Water Act Section 404(b)(1) Guidelines(q) Memorandum of Agreement between the Environmental Protection Agency and the Department of the Army (Aug. 11, 1992).

Coordination of NEPA, Section 404(b)(1) Guidelines and Other Laws

FHWA, USACE, et al., "Synchronizing Environmental Reviews for Transportation and Other Infrastructure Projects: 2015 Red Book" (2015).

Ecological Steering Team , “Eco-Logical: An Ecosystem Approach to Developing Infrastructure Projects” (April 2006)

Purpose and Need in NEPA Documents

Letter from James Connaughton, Chairman, CEQ, to Norman Mineta, Secretary, U.S. DOT (May 12, 2003).

Memorandum from Mary Peters, FHWA Administrator, and Jenna Dorn, FTA Administrator, to FHWA Division Administrators and FTA Regional Administrators, “Interim Guidance on ‘Purpose and Need’” (Aug. 21, 2003).

Executive Orders on Wetlands and Floodplains

E.O. 11990, Protection of Wetlands (May 24, 1977).

E.O. 11988, Protection of Floodplains (May 24, 1977).

E.O. 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input (Jan. 30, 2015).

FEMA, “Guidelines for Implementing Executive Order 11988, Floodplain Management, as Revised, and Executive Order 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input” (Oct. 8, 2015).

Additional References

Environmental Law Institute, “The Federal Wetland Permitting Program: Avoidance and Minimization Requirements” (2008).

J. Schutz, “The Steepest Hurdle in Obtaining a Clean Water Act Section 404(b)(1) Guidelines Permit: Complying with EPA’s 404(b)(1) Guidelines’ Least Environmentally Damaging Practicable Alternative Requirement,” *UCLA Journal of Environmental Law & Policy* (Vol. 24, Issue 1) (2005).

ADDITIONAL RESOURCES

PRACTITIONER'S HANDBOOKS AVAILABLE FROM AASHTO CENTER FOR ENVIRONMENTAL EXCELLENCE:

- 1 Maintaining a Project File and Preparing an Administrative Record for a NEPA Study
- 2 Responding to Comments on an Environmental Impact Statement
- 3 Managing the NEPA Process for Toll Lanes and Toll Roads
- 4 Tracking Compliance with Environmental Commitments/Use of Environmental Monitors
- 5 Utilizing Community Advisory Committees for NEPA Studies
- 6 Consulting under Section 106 of the National Historic Preservation Act
- 7 Defining the Purpose and Need and Determining the Range of Alternatives for Transportation Projects
- 8 Developing and Implementing an Environmental Management System in a State Department of Transportation
- 9 Using the SAFETEA-LU Environmental Review Process (23 USC § 139)
- 10 Using the Transportation Planning Process to Support the NEPA Process
- 11 Complying with Section 4(f) of the U.S. DOT Act
- 12 Assessing Indirect Effects and Cumulative Impacts under NEPA
- 13 Developing and Implementing a Stormwater Management Program in a Transportation Agency
- 14 Applying the Section 404(b)(1) Guidelines in Transportation Project Decision-Making
- 15 Complying with Section 7 of the Endangered Species Act

For additional Practitioner's Handbooks, please visit the Center for Environmental Excellence by AASHTO web site at: <http://environment.transportation.org>

Comments on the Practitioner's Handbooks may be submitted to:
Center for Environmental Excellence by AASHTO
444 North Capitol Street, NW, Suite 249 Washington, DC 20001
Telephone: 202-624-5800
Email: environment@aahto.org
Web site: <http://environment.transportation.org>



Copyright © 2016, AASHTO (American Association of State Highway and Transportation Officials) Center for Environmental Excellence.