



Legal Aspect of Environmental Permitting in the Emergency Response Environment

DETAILS

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LEGAL ASPECT OF ENVIRONMENTAL PERMITTING IN THE EMERGENCY RESPONSE ENVIRONMENT

This report was prepared under NCHRP Project 20-6, "Legal Problems Arising Out of Highway Programs," for which the Transportation Research Board is the agency coordinating the research. The report was prepared by Carlos Sun, University of Missouri, and Douglas Williams, Saint Louis University School of Law. James B. McDaniel, TRB Counsel for Legal Research Projects, was the principal investigator and content editor.

The Problem and Its Solution

State highway departments and transportation agencies have a continuing need to keep abreast of operating practices and legal elements of specific problems in highway law. This report continues NCHRP's practice of keeping departments up-to-date on laws that will affect their operations.

Applications

Most state systems of highways and bridges (highway infrastructure) have been adversely affected by natural and other disasters. These events include storms, hurricanes, tornadoes, floods, earthquakes, landslides, fires, drought, acts of terrorism, and catastrophic failures related to the ravages of use and time. Highway infrastructure can be severely damaged and even destroyed by such events, and there is often a need to expedite clean-up and repair or reconstruction of the damaged structure or facility.

Often in the emergency situations that result from these catastrophic events, the best of participants is demonstrated. Disasters have created circumstances not typically encountered in highway rehabilitation, construction, and reconstruction projects, leading to unique challenges and opportunities. Essential environmental and other regulatory requirements of resource agencies must be achieved on an expedited basis. The federal government, states, and

local governments have made successful efforts to expedite the resumption of services and use of facilities.

The above scenario presents an opportunity for a research project that compares and contrasts environmental resource, regulatory, and other processes that various governmental entities use to facilitate recovery from catastrophic events. Government agencies stand to benefit from these case studies that demonstrate successful responses to the challenges faced.

This legal digest discusses various processes used by governmental entities to attain compliance with environmental laws and regulations in the case of emergencies. These processes were identified through interviews and surveys of various agencies, including the Federal Highway Administration, the Federal Emergency Management Agency, and state departments of transportation. Some of these processes include strong interagency relationships, the use of categorical exclusions, formal pre-existing procedures, up-to-date inventories and tools, staffing composition, informal arrangements, proper planning and scoping, and the use of waivers and exceptions. Case studies are reviewed to illustrate compliance in the case of emergencies such as hurricanes, tornadoes, floods, wildfires, structural failures, and accidents. Results of a national Web survey indicated that strong interagency relationships and the use of categorical exclusions represent two of the most popular best practices reported by agency experts.

TRANSPORTATION RESEARCH BOARD
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I. INTRODUCTION

Staff interviews, case studies, and the Web survey described in this legal digest provide a composite picture of the various approaches agencies have adopted to meet the challenges posed by environmental compliance requirements in the case of emergencies. A more general and comprehensive review of applicable legal requirements is also provided. This digest divides legal requirements into two categories: requirements that may be considered generally applicable and may be implicated in a large variety of circumstances, and requirements that are designed to protect particular resources, such as wildlife or historic properties or artifacts. In many cases, these requirements may be altered or waived in emergency situations. This digest addresses and analyzes statutory provisions that authorize such modifications or waivers. How requirements for environmental review and permitting have been applied by the courts in emergency contexts is also considered. Instances where states have imposed significantly higher regulatory requirements than those imposed by the federal government are discussed. This digest may provide a basis for identifying opportunities for more effective approaches to addressing and managing environmental compliance issues.

One main purpose of this digest is to identify and recommend a set of best practices that agencies may employ in the emergency context in order to meet their legal responsibilities, respect public environmental objectives, and expedite the recovery process. These practices are situated in the pre-disaster and post-disaster contexts. In the pre-disaster context, techniques to ensure coordinated and cooperative agency response actions are identified. These techniques include informal measures such as networking and more formal measures such as the memorandum of agreement and shared staffing arrangements. Pre-disaster planning and data collection are also considered, as are approaches such as the development of general permits that are applicable in emergency contexts. Post-disaster arrangements include informal arrangements among agencies, choice of

design, and the use of exemptions and exclusions from permitting requirements.

II. APPLICABLE LEGAL REQUIREMENTS FOR ENVIRONMENTAL REVIEW OF TRANSPORTATION PROJECTS

A. Introduction and Overview

For many transportation projects authorized and/or funded by the Federal Highway Administration (FHWA) or other federal agencies, a wide variety of federal, state, and local laws impose conditions or prerequisites to the commencement or completion of projects. A significant number of these requirements are designed to protect natural, historic, cultural, and archeological resources. These requirements, which collectively constitute the environmental review to which federally funded transportation projects are subject, are described.

The term “environmental review” is sometimes used to describe, specifically, the requirements of the National Environmental Policy Act (NEPA).¹ In this digest, however, we adopt the definition provided in 23 U.S.C. § 139(a)(3), which defines “environmental review process” for transportation projects to include, in addition to the requirements of NEPA, “the process for and completion of any environmental permit, approval, review, or study required for a project under any Federal Law other than [NEPA].”² This statutory definition affirms a widespread practice among federal agencies, which employ NEPA as an “umbrella” process both to assess environmental impacts and promote compliance with other applicable legal requirements.³

¹ 42 U.S.C. §§ 4321-4370(h).

² 23 U.S.C. § 139(a)(3)(B).

³ See CONG. RESEARCH SERV., RL34650, IMPLEMENTING THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) FOR DISASTER RESPONSE, RECOVERY, AND MITIGATION PROJECTS, at 3-4 (January 13, 2011); CONG. RESEARCH SERV., RL33104, NEPA AND HURRICANE RESPONSE, RECOVERY, AND REBUILDING EFFORTS, at 2 (March 24, 2006).

Previous digests have described the environmental review of transportation projects in great detail. As can be gleaned from such digests, environmental review may present a demanding set of information gathering, analytical, consultative, and substantive regulatory obligations. This section of the current digest provides a more general review. We begin by discussing generally applicable laws that relate to environmental protection. These laws include NEPA and the four major pollution control statutes: The Clean Water Act, the Clean Air Act, the Solid Waste Disposal Act (also known as the Resource Conservation and Recovery Act), and the Comprehensive Environmental Response, Compensation and Liability Act (also known as Superfund). We then briefly describe representative laws that target their protections at more specific resources, such as public lands and resources, wildlife, and historic properties. Our sampling is limited to federal laws. It should be borne in mind that state and local law often supplements or complements these federal environmental protections.

After this brief survey, we then return to NEPA, which, as noted above, has been used by agencies to structure the process of environmental assessment and review of potential compliance issues under other laws and regulatory programs. We identify the relevant agencies and other stakeholders that may be involved in the process of environmental review and devices that may be used to coordinate the process. Next, we turn our attention more specifically to the emergency context, incorporating a discussion of exemptions and other tools that have been, or may be, relied upon to expedite the recovery process while simultaneously ensuring the appropriate consideration of environmental impacts and compliance with legal requirements.

B. Generally Applicable Environmental Laws

A number of regulatory programs address activities that may have impacts on the environment and cultural and historic resources. It is useful to separate the applicable legal requirements into two categories: generally applicable environmental laws and laws protecting particular resources. Generally applicable laws include NEPA and the major federal pollution control programs that regulate a wide variety of private and public activities and may incidentally impose special or more targeted obligations upon federal agencies. These pollution control programs may affect transportation projects in a number of ways, including requirements for obtaining per-

mits. In general terms, the project sponsor will bear responsibility for obtaining the necessary permits and ensuring compliance with these generally applicable regulatory programs

1. *The National Environmental Policy Act and the Process of Environmental Assessment*

NEPA is the nation's "basic charter for protection of the environment."⁴ It is an "essentially procedural" statute that imposes upon all federal agencies a number of information-gathering, analytical, and consultation requirements relating to the environmental effects of agency actions. NEPA mandates that federal agencies assess the environmental impacts of the actions they propose, as well as consider reasonable alternatives to those proposed actions. In broad terms, NEPA seeks to promote environmental protection by requiring federal agencies to critically consider a project's purpose and need, to become educated regarding a project's environmental impacts, to consider a suitable range of alternatives and their environmental impacts, and to promote the public's understanding of and participation in the agency's decision-making process.⁵ NEPA's influence on highway projects is reflected in FHWA's statutory mandates: the agency must "assure that possible adverse economic, social, and environmental effects relating to any proposed project on any Federal-aid system have been fully considered in developing such project, and that the final decisions on the project are made in the best overall public interest, taking into consideration the need for fast, safe and efficient transportation, public services, and the costs of eliminating or minimizing such adverse effects...."⁶

The key provision in NEPA is Section 102(2)(C).⁷ It requires the preparation and consideration of "a detailed statement by the responsible official on...the environmental impact" of "major Federal actions significantly affecting the quality of the human environment."⁸ As interpreted by the courts, NEPA does not merely mandate that an environmental impact statement (EIS) be prepared, but also that the EIS be considered at key

⁴ 40 C.F.R. § 1500.1(a).

⁵ See *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

⁶ 23 U.S.C. § 109(h).

⁷ Pub. L. No. 91-190 (83 Stat. 853). 42 U.S.C. § 4332(2)(C).

⁸ *Id.*

stages in the decision-making process.⁹ Thus, the EIS serves as an “action-forcing device to ensure that [NEPA’s] policies and goals...are infused into the ongoing programs and actions of the Federal Government.”¹⁰

Each federal agency is responsible for implementing NEPA, and each has promulgated regulations to meet that responsibility. The two federal agencies most directly associated with transportation projects in the emergency context are FHWA and the Federal Emergency Management Agency (FEMA). FHWA’s NEPA regulations are codified at 23 C.F.R. Part 771. FEMA’s regulations are found at 44 C.F.R. Part 10. NEPA also established the Council on Environmental Quality (CEQ), which is further charged with promulgating regulations to implement NEPA and provide NEPA-related assistance to other agencies. By executive order, CEQ’s regulations are binding on other federal agencies.¹¹ They also receive considerable deference from the courts.¹²

a. Must an EIS Be Prepared?—The threshold question an agency faces under NEPA is whether an EIS must be prepared. By the terms of the statute, the obligation to prepare an EIS arises only when a proposed action is a major one that significantly affects the quality of the human environment. Some courts have assigned independent significance to the term “major,” suggesting, for example, that the scope of or size of the federal government’s financial involvement in a project may trigger the duty to prepare an EIS.¹³ CEQ’s regulations take a different approach; under these regulations, an action is considered to be major if it has significant environmental effects for which an agency action is responsible and over which the agency has some significant authority to control.¹⁴ FHWA regulations follow the CEQ approach and, similarly, do not attach independent significance to the term “major.”¹⁵

For projects that are known or are likely to have significant environmental impacts, an EIS will generally be required. But for projects the impacts of which are uncertain or are known to be insignificant, CEQ regulations provide alternative pathways for NEPA compliance.¹⁶ If the environmental effects of the action are unknown or uncertain, the agency should prepare an environmental assessment,¹⁷ which one court has described as “a shorter, rough-cut, low-budget EIS.”¹⁸ If, in turn, the environmental assessment demonstrates that the action, including any required mitigation, will have no significant effects, the agency may prepare a “finding of no significant impact,” or FONSI.¹⁹ If the environmental assessment cannot document that the action will have no significant impact, then the agency must proceed to prepare an EIS.

One important question that may arise frequently in emergency contexts concerns the baseline from which a project’s impacts should be assessed in making a determination of whether those impacts are significant. For example, suppose that a severe weather event causes a bridge collapse and FHWA proposes to fund a project to reconstruct the bridge. Should the reconstruction project’s impacts be assessed against a baseline set of environmental conditions that includes the old, functioning bridge, or should the impacts be assessed against a baseline that looks only to environmental conditions prevailing at the time the reconstruction proposal is considered? The court in *Sierra Club v. Hassell*,²⁰ addressed this question and concluded that FHWA properly declined to prepare an EIS, based on an assessment that

¹⁶ See 40 C.F.R. § 1507.3(b)(2).

¹⁷ 40 C.F.R. § 1501.4(b).

¹⁸ *Highway J Citizens Group v. Mineta*, 349 F.3d 938, 953 (7th Cir. 2003).

¹⁹ 40 C.F.R. § 1501.4(e)(1). CEQ has endorsed the use of what has become known as a “mitigated FONSI,” which may be applied “when...mitigation measures are available and an agency commits to perform or ensure the performance of them,” such that significant impacts are avoided. Final Guidance for Federal Departments and Agencies on the Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact, 76 Fed. Reg. 3843, 3848 (Jan. 21, 2011). The courts have approved this use of mitigation. See, e.g., *Hillsdale Environmental Loss Prevention, Inc. v. U.S. Army Corps of Engineers*, 702 F.3d 1156, 1172 (10th Cir. 2012) (concluding that agency’s reliance on mitigation measures supported the agency’s FONSI).

²⁰ 636 F.2d 1095 (5th Cir. 1981).

⁹ *Calvert Cliffs Coordinating Comm. v. U.S. Atomic Energy Comm’n*, 449 F.2d 1109, 1118 (D.C. Cir. 1971).

¹⁰ 40 C.F.R. § 1502.1.

¹¹ Exec. Order No. 11,991.

¹² See *Andrus v. Sierra Club*, 442 U.S. 347, 358 (1979).

¹³ See *State of New Jersey, Dept. of Env’tl. Protection and Energy v. Long Island Power Auth.*, 30 F.3d 403, 416 n.23 (3d Cir. 1994). For discussion of this “dual standard” see D. MANDELKER, *NEPA LAW AND LITIGATION*, § 8.32 (2d ed. updated 2013).

¹⁴ 40 C.F.R. § 1508.18.

¹⁵ 23 C.F.R. § 771.109(a)(1).

regarded the status quo, or baseline, as the environmental conditions prevailing when the old bridge, prior to its destruction, was functioning.²¹

For categories of projects that are known by agency experience not to have significant impacts, CEQ regulations authorize agencies to develop “categorical exclusions.”²² FHWA’s regulations have followed the CEQ’s approach, establishing three different classes of actions:²³

- Class I: significantly affect the environment and require the preparation of an EIS;
- Class II: do not individually or cumulatively have a significant environmental effect and are deemed to be “categorically excluded” from further NEPA review; and
- Class III: environmental impacts of which are not clearly understood and require an “environmental assessment” (EA).

Currently, FHWA regulations identify two classes of categorical exclusions, named for the subsections of 23 C.F.R. §771.117 in which each are codified: (1) “*c-list*” categorical exclusions—classes of actions that have been predetermined to meet criteria governing categorical exclusions and normally require no FHWA approval; and (2) “*d-list*” categorical exclusions or “documented categorical exclusions”—actions that may, on a case-by-case basis, be determined to meet these criteria.²⁴ The Moving Ahead for Progress in the 21st

²¹ *Id.* at 1099.

²² 40 C.F.R. § 501.4(a)(2). CEQ regulations define a “categorical exclusion” as “a category of actions which do not individually or cumulatively have a significant effect on the human environment and which have been found to have no such effect in procedures adopted by a Federal agency in implementation of [CEQ] regulations.” *Id.* § 1508.4. The regulation requires that categorical exclusions must “provide for extraordinary circumstances in which a normally excluded action may have a significant environmental effect.” *Id.*

²³ 23 C.F.R. § 771.115. Unlike the FHWA’s regulations, FEMA regulations do not formally establish classes of action. Nonetheless, FEMA’s regulations require the agency to determine, first, whether the proposed action normally requires an EIS, may be subject to a categorical exclusion, or whether an environmental assessment should be prepared. *See* 44 C.F.R. § 10.8.

²⁴ 23 C.F.R. § 771.117(c)-(d). Following CEQ’s approach, FHWA regulations require that categorical exclusions not be applied if “unusual circumstances” make such application inappropriate. *Id.* § 771.118(b). FHWA has also issued guidance for categorical exclusions. *See* FHWA Technical Advisory T 6640.8A, *Guidance for Preparing and Processing Environmental and Section*

Century Act (MAP-21) mandates that FHWA adopt additional categorical exclusions for a variety of transportation projects.²⁵ The agency has completed or initiated rulemakings to comply with these mandates.²⁶

Judicial scrutiny of an agency’s determination that an action qualifies for a categorical exclusion or a FONSI is typically conducted under the deferential “arbitrary and capricious” standard of review, which is codified in the Federal Administrative Procedure Act.²⁷

In some circumstances, however, disputes over the application of a categorical exclusion may not involve significant factual issues, but instead concern the meaning of the regulatory text on which an agency’s categorical exclusion determination is based. The courts, in these cases, have extended deference to agencies’ views, holding that “an agency’s interpretation of the meaning of its own categorical exclusion should be given controlling weight unless plainly erroneous or inconsis-

4(f) *Documents* (Oct. 30, 1987) [hereinafter “TA 6440.8A”], <http://environment.fhwa.dot.gov/projectdev/impTA6440.asp>. (last visited June 17, 2014)

²⁵ MAP-21 requires the Department of Transportation to commence rulemakings to expand or create new CATEXs (Categorical Exclusions) for a number of categories of projects. *See* P.L. 112-141, §§ 1314-1318, 126 Stat. 547-51.

²⁶ The rules FHWA has proposed to comply with MAP-21 include: (1) CATEXs for projects within an existing operational right-of-way, *see* Environmental Impact and Related Procedures, Notice of Proposed Rulemaking, 78 Fed. Reg. 13609 (Feb. 28, 2013); (2) CATEXs for projects involving limited federal assistance, *see id.*; (3) new CATEXs for projects proposed by state, local and other government agencies, *see* Environmental Impact and Related Procedures; Programmatic Agreements and Additional Categorical Exclusions, Notice of Proposed Rulemaking, 78 Fed. Reg. 57587 (Sept. 19, 2013); and (4) re-designation of certain d-list CATEXs to the status of c-list CATEXs. *See id.*

²⁷ *See, e.g.,* City of Alexandria v. Federal Highway Admin., 756 F.2d 1014, 1017 (4th Cir. 1985) (review of categorical exclusion); North Idaho Community Action Network v. U.S.D.O.T., 545 F.3d 1147, 1152 (9th Cir. 2008) (review of FONSI). Some courts apply a “reasonableness” standard in reviewing agency determinations under NEPA. *See, e.g.,* Sierra Club v. Hassell, 636 F.2d 1095, 1097 (5th Cir. 1981). But as explained by the Court in City of Alexandria, “[a]s a practical matter there is little difference between [the arbitrary and capricious standard] and the ‘reasonableness’ standard....” *Id.*

tent with the terms used in the regulation.”²⁸ Courts have, however, rejected agency attempts to shoehorn projects into a categorical exclusion when the governing regulatory text embraces projects of a much smaller scale or a different character.²⁹

The final class of agency actions, Class I, includes actions that will have a significant impact on the environment and will ordinarily require the preparation of an EIS. FHWA has provided four nonexclusive, but recurring categories of projects that are normally deemed to fall into this class.³⁰ Other actions that require an EIS include those that an EA or other environmental study reveals to have significant effects on the human environment.

b. The Adequacy of an EIS.—While a significant amount of litigation under NEPA involves challenges to an agency’s decision to classify a project as a categorical exclusion or issue a FONSI, the courts have also frequently been called upon to address the adequacy of an agency’s EIS. CEQ regulations provide a standard format for an EIS which “should be followed unless the agency determines that there is a compelling reason to do otherwise.”³¹ FHWA has prepared guidance for the preparation of an EIS that largely tracks CEQ’s standard format but provides a more detailed set of suggestions about what should be included.³²

One important decision that an agency must make in considering the contents of an EIS concerns how the proposed action is to be defined. The resolution of this issue will have determining influence on the major components of the EIS. One type of challenge occasionally raised in judicial challenges concerns the manner in which a project is defined, and involves “segmentation.” Improper segmentation involves dividing a major federal action into artificially smaller components in a way that minimizes the environmental impacts to be considered by the agency.³³ FHWA

regulations address the segmentation issue by requiring that proposed highway projects:

1. Connect logical termini and be of sufficient length to address environmental matters on a broad scope.
2. Have independent utility or independent significance, i.e., be usable and be reasonable expenditures even if no additional transportation improvements in the area are made.
3. Do not restrict the consideration of alternatives for other reasonably foreseeable transportation improvements.³⁴

The courts have generally applied the same or similar criteria in determining whether a major federal action has been improperly segmented, though most have considered the “crucial inquiry” to be whether the “independent utility” criterion has been met.³⁵

Once an appropriate description of the project has been formulated, the key components of an EIS include: 1) a statement of the purpose and need for the proposed action, 2) a compilation of reasonable alternatives, including a “no action” alternative, 3) a description of the affected environment, and 4) a description and analysis of the environmental consequences of the alternatives, and measures to mitigate those impacts.³⁶ CEQ regulations and FHWA guidance elaborate upon these components in some detail.³⁷

In some circumstances, it may be necessary for an agency to supplement an EIS. CEQ regulations contemplate the preparation of a supplemental EIS if the agency makes “substantial changes” to its proposed action or “significant new circumstances or information” become available.³⁸ In *Marsh v. Oregon Natural Resources Council*,³⁹ the Supreme Court held that an agency’s decision not to prepare a supplemental EIS is subject to the arbitrary and capricious standard of review.⁴⁰

²⁸ *West v. Sec’y of Transp.*, 206 F.3d 920, 928 (9th Cir. 2000) (quoting *Alaska Center for the Env’t v. U.S. Forest Service*, 189 F.3d 851, 857 (9th Cir. 1999); *National Trust for Historic Preservation in U.S. v. Dole*, 828 F.2d 776, 782 (D.C. Cir. 1987).

²⁹ *West*, 206 F.3d at 928.

³⁰ 23 C.F.R. § 771.115(a)(1)-(4).

³¹ 40 C.F.R. § 1502.10.

³² TA 6640.8A, *supra* note 24, <http://environment.fhwa.dot.gov/projdev/impTA6640.asp>.

³³ *See, e.g., Save Barton Creek Ass’n v. FHWA*, 950 F.2d 1129, 1140 (5th Cir. 1992).

³⁴ 23 C.F.R. § 771.111(f).

³⁵ *See, e.g., Piedmont Heights Civic Club v. Moreland*, 637 F.2d 430, 440 (5th Cir. 1981).

³⁶ *See* 40 C.F.R. §§ 1502.13-1502.16.

³⁷ *See id.* FHWA guidance provides considerable detail about the preparation and contents of EISs. *See* TA 6640.8A, *supra* note 24, <http://environment.fhwa.dot.gov/projdev/impTA6640.asp>.

³⁸ 40 C.F.R. § 1502.9(c). FHWA’s regulations are similar. *See* 23 C.F.R. § 771.130.

³⁹ 490 U.S. 360 (1989).

⁴⁰ *Id.* at 375-76.

That standard of review also generally governs challenges to the adequacy of an agency's EIS.⁴¹

2. The Clean Water Act

The Federal Clean Water Act (CWA) aims to restore and maintain the chemical, physical, and biologic integrity of the nation's surface waters.⁴² The heart of the CWA is the simple prohibition contained in section 301(a): "Except as in compliance with [various sections of the CWA], the discharge of any pollutant by any person is unlawful."⁴³ The term "discharge of any pollutant" is statutorily restricted to include only additions of pollutants to "navigable waters" from "point sources."⁴⁴ Thus, the key jurisdictional terms of the CWA's regulatory program are "navigable waters" and "point sources."⁴⁵ If a discharge falls within these jurisdictional parameters, it is unlawful unless authorized by and in compliance with the terms of a permit issued under one or more of the CWA's permit programs.

A full and complete discussion of the aforementioned key jurisdictional terms is beyond the scope of this digest. However, in general, and notwithstanding recent restrictive decisions by the United States Supreme Court,⁴⁶ the term "navigable waters," defined in the CWA as "waters of the United States,"⁴⁷ has been broadly construed to include surface waters that are navigable-in-fact, most tributaries of those navigable-in-fact waters, and adjacent wetlands.⁴⁸ The courts have similarly interpreted the "point source" broadly to include not only industrial outfalls of various varieties,

but also land-clearing and other construction equipment.⁴⁹

Two permitting programs are established under the CWA. Section 402 of the CWA establishes the National Pollutant Discharge Elimination System, which is a permit program governing discharges of any pollutants other than "dredged or fill materials."⁵⁰ This program is administered by the US Environmental Protection Agency (EPA), or by states with EPA-approved permitting programs;⁵¹ tribal authorities with approved programs may also administer the permit program within their jurisdictions.⁵² The state programs are sometimes referred to as State Pollutant Discharge Elimination Systems, or, SPDES. Currently, 46 states have approved SPDES programs and serve as the permit authority within their respective jurisdictions.⁵³ The second major permitting program is the Section 404 program, which governs the discharge of dredged and fill material.⁵⁴ This program is administered almost exclusively by the United States Army Corps of Engineers (the Corps). To date, only two states—Michigan and New Jersey—have approved partial Section 404 programs.⁵⁵ Transportation projects may require permits under both the National Pollutant Discharge Elimination System and Section 404 permit programs.

In addition to these permit programs, Section 401 of the CWA requires that "any applicant for a Federal license or permit to conduct any activity, including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters," provide to the federal permitting or licensing authority a water quality certification "from the State in which the discharge originates or will originate."⁵⁶ As part of the certification process, states are authorized to condition their certification on an applicant's compliance with "any effluent limitations and other limitations...and with any other appro-

⁴¹ For a discussion of the standards, see *Sabine River Auth. v. U.S. Dept. of Interior*, 951 F.2d 669, 678 (5th Cir. 1992).

⁴² 33 U.S.C. § 1251(a).

⁴³ 33 U.S.C. § 1311(a).

⁴⁴ In relevant part, the CWA defines the terms "discharge of a pollutant" or "discharge of pollutants" to "mean (A) any addition of any pollutant to navigable waters from any point source." 33 U.S.C. § 1362(12).

⁴⁵ The term "addition" has been the subject of recent judicial decisions that, to some extent, limit the jurisdictional reach of the CWA. See *infra* note 61.

⁴⁶ See *Rapanos v. United States*, 547 U.S. 715 (2006), *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, 531 U.S. 159 (2001).

⁴⁷ 33 U.S.C. § 1362(7).

⁴⁸ See 33 C.F.R. § 328.3(a); 40 C.F.R. § 122.2. EPA and the Corps of Engineers have recently proposed rules clarifying the term "waters of the United States" in light of the recent Supreme Court decisions. See 79 Fed. Reg. 22188 (Apr. 21, 2014).

⁴⁹ See, e.g., *Avoyelles Sportsmen's League v. Marsh*, 715 F.2d 897, 922 (5th Cir. 1983).

⁵⁰ 33 U.S.C. § 1342(a).

⁵¹ 33 U.S.C. § 1342(b).

⁵² 33 U.S.C. § 1377(e).

⁵³ See *State Program Status*, <http://cfpub.epa.gov/npdes/statestats.cfm>. Indian tribes are also authorized to assume permitting authority within their jurisdictions. See 33 U.S.C. § 1377(e).

⁵⁴ 33 U.S.C. § 1344(a).

⁵⁵ 40 C.F.R. Part 233, Subpart H.

⁵⁶ 33 U.S.C. § 1341(a).

appropriate requirement of State law.”⁵⁷ These conditions must then be incorporated into the federal permit or license. Federal agencies are prohibited from issuing permits or licenses unless a state certification has been obtained by the applicant or such certification has been waived under the terms of the CWA.⁵⁸

To facilitate a discussion of the CWA requirements that may affect transportation projects, it is important to distinguish between a variety of permits that may be available or applicable under the CWA. “Individual permits” are permits issued by an appropriate permitting authority (either a state or the EPA) on an individual, case-by-case basis, and include site-specific effluent limitations governing discharges and other general permit conditions.⁵⁹ “General permits,” by contrast, are essentially permits by rule. They authorize discharges associated with classes or categories of activities, so long as a prescribed set of generic conditions is met. In most cases, an activity will be authorized under a general permit with the submission by the applicant to the permitting authority of a “notice of intent” (NOI) to be covered by the permit. General permits can be issued on a nationwide, regional, state, local, or programmatic basis.

a. The Section 402 National Pollutant Discharge Elimination System Permitting Program.—Permits issued under the Section 402 National Pollutant Discharge Elimination System Program typically govern ongoing wastewater management practices at industrial facilities. Transportation systems and projects rarely involve such discharges, but they do frequently involve channeled stormwater discharges. This channeled stormwater is a “discharge of a pollutant,” and thus, subject to regulation under the National Pollutant Discharge Elimination System Program.⁶⁰ Similarly, land disturbance associated with transportation construction projects can release sediment and other pollutants that are carried into receiving waters during wet weather events. Section

402(p) of the National Pollutant Discharge Elimination System Program includes special provisions that address stormwater discharges.

b. The Section 404 Program.—Many transportation projects will involve disturbances to wetlands or surface waters that are considered “navigable waters” under the CWA. If those disturbances include any “discharge of dredged or fill material,” they are subject to the permitting requirements of Section 404 of the CWA unless a specific exemption is applicable. The terms “discharge of dredged material” and “discharge of fill material” are both defined by the Corps and EPA regulations.⁶¹ The Corps has defined the “discharge of

⁶¹ 33 C.F.R. § 323.2(d)(3) (Corps definition); 40 C.F.R. § 232.2. The exclusion of “incidental fallback” is a response to *National Mining Assn. v. Corps of Engineers*, 145 F.3d 1399 (D.C. Cir. 1998), which invalidated what had become known as the “Tulloch Rule.” The Tulloch Rule was promulgated by the Corps and EPA as part of a settlement in *North Carolina Wildlife Federation v. Tulloch*, Civ. No. C90-713-CIV-5-BO (E.D. N.C.1992). It defined “discharge of dredged material” to include “[a]ny addition, including any redeposit, of dredged material, including excavated material, ...which is incidental to any activity, including mechanized landclearing, ditching, channelization, or other excavation.” In *National Mining Assn.*, the court noted that the term “discharge of a pollutant” is defined in the CWA in such a way as to require an “addition” of pollutants, see 33 U.S.C. § 1362(12), and that “cannot reasonably be said to encompass the situation in which material is removed from the waters of the United States and a small portion of it happens to fall back. Because incidental fallback represents a net withdrawal, not an addition, of material, it cannot be a discharge.” *National Mining Assn.*, 145 F.3d at 1404. Accordingly, the court invalidated the Tulloch Rule to the extent it included incidental fallback from dredging operations in the definition of “discharge of dredged material.”

The agencies responded by excluding incidental fallback from the definition. 64 Fed. Reg. 25120 (May 10, 1999), and this rule change became known as the “1999 Rule.” This rule was held to conform to the requirements of *National Mining Assn.* in subsequent litigation. See *American Mining Congress v. U.S. Army Corps of Engineers*, 120 F. Supp. 2d 23 (D.D.C. 2000).

The agencies later promulgated a rule that included a definition of “incidental fallback,” 66 Fed. Reg. 4550 (Jan. 17, 2001), but that rule was invalidated in *National Association of Home Builders v. Army Corps of Engineers*, No. 01-0274, 2007 WL 259944 (D.D.C. Jan. 30, 2007). The current rule was promulgated in 2008 and it returns the definition of discharge of dredged material to the terms of the 1999 Rule, with a minor exception not relevant here. See 73 Fed. Reg. 79641 (Dec. 30, 2008).

⁵⁷ 33 U.S.C. § 1341(d).

⁵⁸ 33 U.S.C. § 1341(a).

⁵⁹ The Corps’ definition of an individual permit can be found at 33 C.F.R. § 323.2(g).

⁶⁰ EPA regulations define the term “discharge of a pollutant” to “include[] additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to treatment works.” 40 C.F.R. § 122.2.

fill material” to include, among other things, “[p]lacement of fill that is necessary for the construction of any structure or infrastructure in a water of the United States; the building of any structure, infrastructure, or impoundment requiring rock, sand, dirt, or other material for its construction;” and “road fills.”⁶²

Like the National Pollutant Discharge Elimination System Program discussed above, permits under the Section 404 program may be issued on a general or individual basis. The Corps and its district offices have issued a broad variety of general permits that may potentially apply to transportation projects. These permits are authorized by the CWA for activities that “will cause only minimal adverse environmental effects when performed separately, and will have only minimal cumulative adverse effect on the environment.”⁶³ General permits may be issued on a State, regional, or nationwide basis.⁶⁴ The Corps periodically issues and reissues a broad variety of general permits that are available on a nationwide basis.⁶⁵

Three of the currently authorized nationwide permits (NWP) warrant notice here because of their relevance to transportation projects and emergency situations.⁶⁶ The first of these is NWP-3, titled “Maintenance.” It authorizes discharges of dredged or fill material in connection with the repair, rehabilitation, or replacement of previously authorized “serviceable structures.” The authorization is limited to returning the structure to its pre-existing condition. The second NWP of particular relevance to transportation projects is NWP-14, Linear Transportation Projects. It authorizes activities required for the construction, expansion, modification, or improvement of roads and highways, subject to acreage limitations on losses of waters of the United States. The third is

⁶² 33 C.F.R. § 323.2(f).

⁶³ 33 U.S.C. § 1344(e)(1).

⁶⁴ *Id.*

⁶⁵ The most recent issuance of nationwide permits was completed by the Corps on February 21, 2012. See 77 Fed. Reg. 10184 (Feb. 21, 2012). A few minor amendments were made to the nationwide permit program on January 28, 2013. See 78 Fed. Reg. 5726 (Jan. 28, 2103).

⁶⁶ The details of the current NWPs, including the two discussed in the text, can be found in *2012 Nationwide Permits, Conditions, District Engineer’s Decision, Further Information, and Definitions* (with corrections), available at http://www.usace.army.mil/Portals/2/docs/civilworks/nwp/2012/NWP2012_corrections_21-sep-2012.pdf.

NWP-23, which authorizes activities that have been determined by the action agency to be categorically excluded under NEPA, provided that the Corps has concurred with the determination. The Corps has concurred in FHWA’s determination that emergency repairs are categorically excluded from NEPA; thus those activities are authorized under NWP-23.⁶⁷

For discharges of dredged and fill material not authorized by general permits, an individual permit is required. These permits may be issued by the relevant Corps District Engineer, provided that applicable regulatory criteria are met. These criteria include regulations, known as the Section 404 Guidelines, issued by EPA.⁶⁸ In general, these regulations require that discharge permits be issued only where there is no practicable alternative to the discharge, that any impacts to jurisdictional waters be avoided or minimized, and compensatory mitigation is undertaken for unavoidable impacts. In addition to the Section 404 Guidelines, dredge and fill permits must satisfy the Corps’ “public interest” review, which involves weighing a variety of environmental, economic, and social factors.⁶⁹ Finally, before issuing a Section 404 permit, the Corps must comply with NEPA, consult with other federal agencies such as EPA and the US Fish and Wildlife Service (Fish & Wildlife), and obtain a water quality certification, or waiver of certification, from the relevant state authority pursuant to Section 401 of the Clean Water Act.⁷⁰

3. The Clean Air Act

The Clean Air Act creates a complex regulatory program of cooperative federalism in which EPA and the States share responsibilities for protecting public health and the environment from the dangers of air pollution. The heart of the Clean Air Act is Title I, which authorizes, among other things, the promulgation by EPA of National Ambient Air Quality Standards (NAAQS).⁷¹ The

⁶⁷ See U.S. Army Corps of Engineers, Regulatory Guidance Letter No. 05-07 (Dec. 8, 2005), available at <http://www.usace.army.mil/Portals/2/docs/civilworks/RG/LS/rgl05-07.pdf>.

⁶⁸ See 40 C.F.R. Part 230.

⁶⁹ See 33 C.F.R. § 320.4.

⁷⁰ For a general overview of the Section 404 permitting process, see Stephen M. Johnson, *Individual Permits*, in *WETLANDS LAW AND POLICY: UNDERSTANDING SECTION 404*, 191-219 (K. Connolly, S. Johnson, & D. Williams, eds. 2005).

⁷¹ See 42 U.S.C. § 7409.

NAAQS are implemented through state implementation plans, which may include a variety of source controls and transportation control measures to reduce emissions, and the resulting concentration in the ambient air, of those pollutants for which NAAQS have been established.⁷²

In general, the air quality impacts of transportation projects are subject to oversight by state and local governments through planning processes and transportation control measures that are incorporated into state implementation plans. To ensure that federally funded transportation projects are consistent with state implementation plans, and that such projects do not undermine the states' efforts to attain the NAAQS, the Clean Air Act subjects such projects to what is known as a "conformity determination."⁷³ The conformity requirement applies only in those areas that are not attaining the NAAQS for any of the following pollutants: ozone, carbon monoxide, particulate matter, or nitrogen dioxide.⁷⁴ FHWA is responsible for making conformity determinations for transportation projects that the agency funds or approves.⁷⁵

For FHWA transportation projects, conformity can be determined in either of two ways. First, the project will be deemed to conform to an implementation plan if: 1) the project comes from a conforming transportation plan or program; 2) the design and scope of the project have not changed since a conformity determination regarding the plan and program from which the project is derived; and 3) the design and scope of the project at the time of the conformity determination for the program and plan was adequate to determine emissions. Second, for projects not meeting the first set of criteria, conformity can be determined "only if it is demonstrated that the projected emissions from such project, when considered together with emissions projected for the conforming transportation plans and programs within the

⁷² See *id.* § 7410. The state implementation plans are initially promulgated by the States for all air quality control regions within their respective jurisdictions, and are subject to review and approval by EPA. Should a State fail to promulgate an acceptable state implementation plan, EPA is required to promulgate a federal implementation plan for the pertinent air quality control region. See *id.*

⁷³ See generally *Transportation Conformity*, <http://www.epa.gov/omswwww/stateresources/transconf/index.htm>.

⁷⁴ 40 C.F.R. § 93.102(b); see *Environmental Defense Fund v. EPA*, 82 F.3d 451, 455n.2 (D.C. Cir. 1996).

⁷⁵ *Id.* § 93.104(d).

nonattainment area, do not cause such plans and programs to exceed the emission reduction projections and schedules assigned to such plans and programs in the applicable implementation plan.⁷⁶ EPA regulations provide greater detail about project-level conformity determinations.⁷⁷

EPA's conformity regulations include a number of project-level exemptions from the conformity determination requirements. Among these exemptions are the following: projects that correct, improve, or eliminate a hazardous location or feature; pavement resurfacing and/or rehabilitation; emergency relief; widening narrow pavements or reconstructing bridges (no additional travel lanes); repair of damage caused by natural disasters, civil unrest, or terrorist acts, except projects involving substantial functional, locational, or capacity changes.⁷⁸

The Clean Air Act also provides EPA with emergency powers that may affect transportation projects. Section 303 of the Clean Air Act authorizes the administrator of EPA to act in response to "evidence that a pollution source or combination of sources (including moving sources) is presenting an imminent and substantial endangerment to public health or welfare, or the environment."⁷⁹ When it is not practicable to seek judicial relief, the administrator may "issue such orders as may be necessary to protect public health or welfare or the environment."⁸⁰

4. *The Resource Conservation and Recovery Act*

The Solid Waste Disposal Act, better known as the Resource Conservation and Recovery Act (RCRA) for the 1984 amendments to the Solid Waste Disposal Act, is a "cradle-to-grave" program for the management of hazardous wastes.⁸¹ This detailed, complex regulatory program imposes obligations on all persons involved in the lifecycle of hazardous wastes: those who generate, transport, store, treat, or dispose of hazardous wastes. The RCRA program is designed to ensure that the wastes are managed in ways that do not present hazards to public health or the environ-

⁷⁶ 42 U.S.C. §§ 7506(c)(2)(C)-(D).

⁷⁷ See 40 C.F.R. § 93.109.

⁷⁸ *Id.* § 93.126.

⁷⁹ 42 U.S.C. § 7603.

⁸⁰ *Id.*

⁸¹ The regulatory provisions RCRA governing hazardous wastes are primarily found in Subchapter III of the legislation, 42 U.S.C. §§ 6921-6939g.

ment.⁸² The basic requirements of the regulatory program include:

- Generators: must determine whether the wastes they generate or that come within their possession and control are hazardous; maintain records that identify the quantity, characteristics, and disposition of any hazardous wastes that are generated; obtain a waste identification number for the waste from EPA; if offsite disposal is contemplated, properly package and label; document the movement and treatment, storage, or disposal of the waste through a waste manifest tracking program; and select only permitted treatment, storage, or disposal facilities for the disposition of hazardous wastes.⁸³
- Transporters: accept hazardous wastes for transport only if the wastes are accompanied by appropriate manifest; deliver hazardous wastes only to facilities designated.⁸⁴
- Treatment, Storage, or Disposal Facilities: obtain a permit from EPA or an approved state program and comply with applicable recordkeeping, financial responsibility, and performance and design standards, and take corrective action to address any onsite releases of hazardous wastes.⁸⁵

RCRA also seeks to discourage land disposal of hazardous wastes. The statute prohibits land disposal and storage of most hazardous wastes unless the wastes are pretreated in accordance with EPA regulations.⁸⁶

Federal agencies that have jurisdiction over any solid waste management facility or disposal site, or that engage in any activity that may result in the management or disposal of solid or hazardous wastes, “shall be subject to, and comply with, all Federal, State, interstate, and local requirements, both substantive and procedural,

⁸² The scope of the RCRA’s regulatory program for managing hazardous wastes is informed by statutory and regulatory definitions of the terms “solid waste” and “hazardous waste.” See 42 U.S.C. § 6903; 40 C.F.R. §§ 261.2 (solid waste) and 261.3 (hazardous waste).

⁸³ See 40 C.F.R. Part 262. A “generator” is defined by EPA regulations as “any person, by site, whose act or process produces hazardous waste identified or listed [under EPA regulations] or whose act first causes a hazardous waste to become subject to regulation.” *Id.* § 260.10

⁸⁴ See *id.* Part 263.

⁸⁵ See *id.* Part 264. EPA regulations provide detailed definitions of the terms “treatment,” “storage,” and “disposal.” See *id.* § 260.10.

⁸⁶ See 42 U.S.C. § 6924.

...respecting control and abatement of solid waste or hazardous waste disposal and management in the same manner, and to the same extent, as any person is subject to such requirements.”⁸⁷

Like the Clean Air Act, the RCRA includes a grant of emergency powers to EPA. Section 7003 authorizes EPA to bring suit against “any person...who has contributed or is contributing to” “the past or present handling, storage, treatment, transportation or disposal of any solid waste or hazardous waste [that] may present an imminent and substantial endangerment to health or the environment.”⁸⁸ That section also authorizes EPA to “take other action...including, but not limited to, issuing such orders as may be necessary to protect public health and the environment.”⁸⁹ Unlike the Clean Air Act, however, RCRA supplements EPA’s emergency powers by authorizing “any person” to bring suit to secure relief against persons whose past or present handling of solid or hazardous wastes may present an imminent and substantial endangerment to health or the environment.⁹⁰

5. The Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) provides broad authority for government responses to releases of hazardous substances that may pose an imminent and substantial threat to public health and the environment and provides mechanisms for conducting longer-term remediation of contaminated facilities. It also imposes broad liability for the costs of such responses on classes of “potentially responsible parties.” The purposes of CERCLA are to promote timely responses to dangerous releases of hazardous substances, promote cleanup of sites contaminated with hazardous substances, “and to ensure that the costs of such cleanup efforts [are] borne by those responsible for the contamination.”⁹¹ CERCLA’s broad remedial focus differentiates it from the Safe Drinking Water Act’s (SDWA) more regulatory and preventative orientation, though there can be some overlap between the two programs. For example,

⁸⁷ 42 U.S.C. § 6961(a).

⁸⁸ *Id.* § 6973(a).

⁸⁹ *Id.*

⁹⁰ *Id.* § 6972(a)(1)(B).

⁹¹ *Burlington Northern and Santa Fe Ry Co. v. United States*, 556 U.S. 599, 602 (2009) (citing *Consolidated Edison Co. v. UGI Util., Inc.*, 423 F.3d 90,94 (2d Cir. 2005)).

EPA's emergency authority under the SWDA may be invoked simultaneously with CERCLA's response and liability authorities.⁹²

a. Response Authorities.—To promote timely responses to releases of hazardous substances, CERCLA directs the president to revise and update a National Contingency Plan (NCP) to include “procedures and standards for responding to releases of hazardous substances, pollutants, and contaminants.”⁹³ The legislation also creates the “Superfund,” which can be used to finance government response actions and, in some circumstances, reimburse private parties for costs incurred in complying with the requirements of the NCP.⁹⁴

CERCLA imposes an obligation on any “person in charge” of a vessel or facility to notify the National Response Center of a release of “reportable quantities” of hazardous substances “as soon as he has knowledge of” such a release.⁹⁵ When notified of a release or threatened release into the environment, the federal government may undertake or arrange for short-term removal actions and longer-term remedial actions. A removal action is a short-term response designed to “prevent, minimize, or mitigate damage to the public health or welfare or to the environment.”⁹⁶ A remedial action is “permanent remedy taken instead of or in addition to removal actions...to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment.”⁹⁷

CERCLA's response authorities provide for three different mechanisms to address hazardous conditions. First, upon determining that a release or threatened release of hazardous substances poses an “imminent and substantial endangerment to the public health or welfare or the environment,” EPA may initiate response actions by using funds from the Superfund or by contracting

with a responsible party.⁹⁸ Alternatively, EPA may issue unilateral administrative orders directing potentially responsible parties to take such action “as may be necessary to protect public health and welfare and the environment.”⁹⁹ Finally, the federal government is authorized to initiate an action in federal district court “to secure such relief as may be necessary to abate [an imminent and substantial] danger or threat.”¹⁰⁰

b. Liability Provisions.—CERCLA is designed to shift the costs of response actions to those who bear some responsibilities for the facility, release, or hazardous substances involved. The legislation has been interpreted to impose “a strict liability standard...determined from traditional and evolving principles of common law.”¹⁰¹ If the harm caused by a release is “indivisible,” liability is joint and several.¹⁰² The scope of liability includes all costs of removal and/or remedial action, damages for injury to natural resources, and the costs of appropriate health assessments.¹⁰³

Four classes of entities associated with a facility from which there is a release or threatened release of hazardous substances and which causes the incurrence of response costs are potentially liable under CERCLA. They are: 1) the current owner or operator of the facility; 2) any person who at the time of disposal of a hazardous substance owned or operated the facility; 3) any person who “arranged for disposal or treatment” of hazardous substances at the facility; and 4) any person who selects the facility and transports hazardous substances to such facility.¹⁰⁴

Extensive case law has given content to the four classes of responsible parties. In general, the statute has been interpreted expansively to net in virtually any entity that has a direct or indirect connection to the facility from which a release has occurred or to the hazardous substances that are found at such a facility. The statute does include a number of exclusions or exemptions from these categories.¹⁰⁵

⁹² See, e.g., *United States v. Aceto Agricultural Chem. Corp.*, 872 F.2d 1373 (8th Cir. 1989).

⁹³ 42 U.S.C. § 9605(a). The NCP was originally mandated by the Clean Water Act. See 33 U.S.C. § 1321(d). The current version of the NCP is codified at 40 C.F.R. Part 300.

⁹⁴ 42 U.S.C. § 9611.

⁹⁵ *Id.* § 9603(a). EPA regulations governing the reporting requirement, including specified “reportable quantities,” can be found at 40 C.F.R. Part 302.

⁹⁶ *Id.* § 9601(23).

⁹⁷ *Id.* § 9601(24).

⁹⁸ See *id.* § 9604(a).

⁹⁹ *Id.* § 9606(a).

¹⁰⁰ *Id.*

¹⁰¹ *Burlington N. & S.F. Ry. v. United States*, 566 U.S. 599, 613 (2009) (quoting *United States v. Chem-Dyne Corp.*, 572 F. Supp. 802, 805, 808 (S.D. Ohio 1983)).

¹⁰² *Id.* at 614-15.

¹⁰³ 42 U.S.C. § 9607(a)(4).

¹⁰⁴ *Id.* §§ 9607(a)(1)-(4).

¹⁰⁵ For a discussion of exclusions or exemptions from CERCLA liability, see R. PERCIVAL, C. SCHROEDER, ET

CERCLA also includes some affirmative defenses to claims of liability, but these defenses have been strictly limited by the courts. Section 107(b) provides that an otherwise liable party may escape liability by proving by the preponderance of the evidence that a release or threatened release was “caused solely by (1) an act of God; (2) an act of war; (3) an act or omission by a third party other than an employee or agent of the defendant, or one whose act or omission occurs in connection with a contractual relationship, existing directly or indirectly, with the defendant”; or any combination of these events; and that (a) the defendant “exercised due care with respect to the hazardous substance concerned...and (b) the defendant took precautions against foreseeable acts or omissions of any such third party and the consequences that could foreseeably result from such acts or omissions.”¹⁰⁶ The statute defines an “act of God” as “an unanticipated grave natural disaster or other natural phenomenon of an exceptional, inevitable, and irresistible character, the effects of which could not have been prevented or avoided by the exercise of due care or foresight.”¹⁰⁷ The most complex components of the affirmative defenses involve other aspects of the definition of “owner or operator” and the definition of “contractual relationship” as applicable to the “third-party” defense found in Section 107(b).¹⁰⁸

The courts have held that in order to present a prima facie case for liability under CERCLA, the complaining party must allege and prove that 1) the contaminated site is a “facility”; 2) there has been a release or a threatened release of a hazardous substance from that facility; 3) the release or threatened release has caused the plaintiff to incur response costs that are consistent with the NCP; and 4) the defendant falls into one or more of the four classes of responsible parties.¹⁰⁹ The terms “facility,”¹¹⁰ “hazardous substance,”¹¹¹ and “release”¹¹² are all very broadly defined by CERCLA, so that in most cases, these requirements of a prima facie case are easily satisfied. In addition, and notably, the courts have refused to

require proof that the defendant’s conduct caused a release or threatened release; in the words of one court, “CERCLA does away with a causation requirement.”¹¹³

An action to recover response costs may be initiated by federal and state authorities or by private parties who have incurred response costs.¹¹⁴ State and federal agencies may recover all response costs “not inconsistent with the national contingency plan,”¹¹⁵ while private parties may only recover “necessary costs” that are “consistent with the national contingency plan.”¹¹⁶ Responsible parties may also be subject to claims for contribution from other responsible parties. Responsible parties that have resolved their liability to the federal government or to a State in an administrative or judicially approved settlement are immune from claims for contribution “regarding matters addressed in the settlement,”¹¹⁷ but are not similarly immune from private cost recovery actions brought pursuant to section 107(a)(4)(b).¹¹⁸

C. Laws Protecting Particular Resources

There are a number of laws that provide protections for particular environmental resources or that require a federal action agency to consult with other agencies when resources may be affected by the agencies’ proposals or actions.¹¹⁹ In

¹¹³ *United States v. Alcan Aluminum Co.*, 990 F.2d 711, 721 (2d Cir. 1993); *see also* *New York v. Shore Realty Corp.*, 759 F.2d 1032, 1044 (2d Cir. 1985).

¹¹⁴ Private cost recovery actions under Section 107 of CERCLA must be distinguished from private suits for contribution from other responsible parties under Section 113 of CERCLA. Only private parties who pay to satisfy a settlement agreement or judgment may seek contribution pursuant to Section 113 of CERCLA. On the other hand, payment of money to satisfy a settlement obligation or judgment is not considered to be the incurrence of response costs that will support a private cost recovery action under Section 107. *See* *United States v. Atlantic Research Corp.*, 551 U.S. 128 (2007).

¹¹⁵ 42 U.S.C. § 9607(a)(4)(A).

¹¹⁶ *Id.* 9607(a)(4)(B). *See* *Artesian Water Co. v. Government of New Castle County*, 659 F. Supp. 1269, 1278–79 (D. Del. 1987), *aff’d*, 851 F.2d 643 (3d Cir. 1988).

¹¹⁷ 42 U.S.C. § 9613(f)(2).

¹¹⁸ *Atlantic Research Corp.*, 551 U.S. at 140.

¹¹⁹ For a comprehensive survey of environmental laws applicable to transportation projects, *see* BRIAN W. BLAESSER, DANIEL R. MANDELKER & MICHAEL S. GIAMO (supplemented by Lew Bricker & Frederick Goodwill), *SELECTED STUDIES IN TRANSPORTATION LAW*,

AL., ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY 426–28 (6th ed. 2009).

¹⁰⁶ *Id.* § 9607(b).

¹⁰⁷ *Id.* § 9601(1).

¹⁰⁸ *See id.* §§ 9601(20), 9601(35).

¹⁰⁹ *3550 Stevens Creek Assocs. v. Barclay’s Bank of California*, 915 F.2d 1355, 1358 (9th Cir. 1990).

¹¹⁰ *See* 42 U.S.C. 9601(9).

¹¹¹ *See id.* at 9601(14).

¹¹² *See id.* § 9601.

this section, we briefly discuss three of the laws most commonly encountered in transportation projects and most likely to be implicated in the emergency response environment: Section 4(f) of the Department of Transportation Act, the Endangered Species Act, and the National Historic Preservation Act.

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

The Department of Transportation Act of 1966 included Section 4(f), which as amended is now codified at 49 U.S.C. § 303(c).¹²⁰ The applicable provision states:

the Secretary [of Transportation] may approve a transportation program or project (other than any project for a park road or parkway under section 204 of title 23) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction) only if—

(1) there is no prudent and feasible alternative to using that land; and

(2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site.¹²¹

More recent amendments have added provisions permitting approval of projects involving the use of Section 4(f) resources if the Secretary of Transportation determines that project's impacts on such resources will be *de minimis*.¹²² The finding of a *de minimis* impact on protected resources subsumes the agency's duty to consider reasonable and prudent alternatives or to engage in planning to minimize impacts.¹²³ There are two categories of properties that are subject to Section 4(f)'s restrictions: 1) land of public parks, recreation areas, and wildlife and waterfowl refuges considered to be of national, State, or local significance; and 2) land of historic sites considered to be of national, State, or local significance. To fall within the first category, the property must be publicly owned, open for public use, and be considered significant for park, recreation, or refuge

purposes.¹²⁴ The significance of land for park, recreation, or refuge purposes will be presumed in the absence of a determination to the contrary by the official with jurisdiction over the land in question.¹²⁵ For multiple use lands, such as national and state forests, FHWA regulations provide that Section 4(f) will apply “only to those portions of such lands which function for, or are designated in the plans of the administering agency as being for, significant park, recreation, or wildlife and waterfowl refuge purposes.”¹²⁶

Land of an historic site, including archaeological sites discovered during a project's implementation,¹²⁷ are subject to Section 4(f) only if they are listed, or eligible for listing, on the National Register of Historic Places, unless FHWA determines that the application of Section 4(f) is “otherwise appropriate.”¹²⁸ Unless a specific exemption applies, a historic site that is listed or eligible for listing on the National Register is considered “significant” for purposes of Section 4(f) even if state or local officials with jurisdiction over the property consider the site relatively unimportant.¹²⁹ The Section 4(f) process for addressing historic properties is integrated with and subject to the process of complying with Section 106 of the National Historic Preservation Act, which is discussed in greater detail below.¹³⁰

FHWA regulations broadly construe the term “use.” Thus, a protected property is “used” for purposes of Section 4(f) when: 1) the land is permanently incorporated into a transportation facility; 2) it is temporarily occupied in a way that is “adverse in terms of the statute's preservation purpose”; or 3) there is a constructive use of the property.¹³¹ A protected property will be considered to be constructively used “when the transpor-

¹²⁴ See U.S. Dep't of Transportation, Federal Highway Admin, Section 4(f) Policy Paper (2012), available at <http://environment.fhwa.dot.gov/4f/4fpolicy.asp#hs>.

¹²⁵ 23 C.F.R. § 774.11(c).

¹²⁶ *Id.* § 774.11(d).

¹²⁷ Archaeological resources are not subject to Section 4(f) if FHWA finds that the resource “is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place” and the official with jurisdiction has been consulted and has not objected to the finding. *Id.* § 774.13(b).

¹²⁸ See *id.* § 774.11(e)(1).

¹²⁹ 23 C.F.R. § 774.11(e); see *Stop H-3 Assn. v. Coleman*, 533 F.2d 434 (9th Cir.), *cert. denied*, 429 U.S. 999, 440-45 (1976).

¹³⁰ See 23 C.F.R. § 774.5(b)(1).

¹³¹ 23 C.F.R. § 774.17.

ENVIRONMENTAL LAW AND TRANSPORTATION (National Cooperative Highway Research Program, 2010).

¹²⁰ A similar provision was contained in the Federal Highway Act, and is codified at 23 U.S.C. § 138(a).

¹²¹ 49 U.S.C. § 303(c).

¹²² *Id.* § 303(d).

¹²³ 23 C.F.R. § 774.17 (4).

tation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired.¹³² The courts have similarly concluded that, "[t]he term 'use' is to be broadly construed, not limited to the concept of a physical taking, but includes areas that are significantly, adversely affected by the project."¹³³

To use a protected property for a FHWA-approved project, the agency must determine that there are no feasible and prudent alternatives and that the project incorporates all possible planning to minimize harm to the protected property. In *Citizens to Preserve Overton Park v. Volpe*,¹³⁴ the Supreme Court interpreted the "no feasible and prudent alternative" requirement. It noted that for an alternative to be considered not "feasible," "the Secretary must find that as a matter of sound engineering it would not be feasible to build the highway along any other route."¹³⁵ In considering whether a feasible alternative is "prudent," the Court held that a "wide-ranging balancing of interests" was inappropriate; instead, "protection of parkland...be given paramount importance."¹³⁶ Protected properties may be used for transportation projects only if the agency determines that "truly unusual factors" require the use or that "the cost or community disruption resulting from alternative routes reach[] extraordinary magnitudes."¹³⁷ Put differently, the Court concluded that "the Secretary cannot approve the destruction of parkland unless he finds that alternative routes present unique problems."¹³⁸

The Court in *Overton Park* did not address the requirement to engage in "all possible planning to minimize harm" in the event that there are no feasible and prudent alternatives to the use of protected resources. Lower court decisions have indicated that this requirement imposes an affirmative obligation on the Secretary to minimize harm to protected properties before approving projects that use protected properties. That obli-

gation is satisfied when the Secretary conducts a "simple balancing process which...total[s] the harm to the [protected property] of each alternative route and select[s] the route which does the least total harm."¹³⁹

FHWA's implementing regulations for Section 4(f) reflect the Court's decision in *Overton Park* and more recent legislation.¹⁴⁰ FHWA regulations also prescribe a process for complying with Section 4(f) and include procedures for coordinating with officials with jurisdiction over protected properties, documentation sufficient to support the agency's determinations, integrating the Section 4(f) process with NEPA and Section 106 of the National Historic Preservation Act, and providing public notice and an opportunity for public review.¹⁴¹

In an effort to streamline the Section 4(f) evaluation process, FHWA has developed nationwide programmatic evaluations to implement and comply with the requirements of Section 4(f). A programmatic evaluation identifies a category or categories of minor uses of Section 4(f) properties and includes a standardized evaluation of avoidance alternatives, based on the agency's experience with such uses in the past.¹⁴² They are thus similar to categorical exclusions under NEPA. Like categorical exclusions, the FHWA's programmatic evaluations eliminate the need for Section 4(f) evaluations on a case-by-case, individual project basis. Currently, FHWA has approved programmatic evaluations for five categories of transportation projects.¹⁴³ These programmatic evaluations may be relied on only if the specific conditions in the programmatic evaluations are satisfied and only if their application is documented in the manner specified by the respective programmatic evaluation.¹⁴⁴

2. The Endangered Species Act

The Endangered Species Act (ESA) was enacted "to provide a means whereby the ecosystems upon which endangered species and threatened

¹³² *Id.* § 774.15(a); see D.C. Fed'n of Civic Assns. v. Volpe, 459 F.2d 1231, 1239 (D.C. Cir.), cert. denied, 405 U.S. 1030 (1972).

¹³³ *Adler v. Lewis*, 675 F.2d 1085, 1092 (9th Cir. 1982).

¹³⁴ 401 U.S. 402 (1971).

¹³⁵ *Id.* at 411.

¹³⁶ *Id.* at 411, 412-13.

¹³⁷ *Id.* at 412-13.

¹³⁸ *Id.* at 413.

¹³⁹ *Louisiana Environmental Soc'y v. Coleman*, 537 F.2d 79, 86 (5th Cir. 1976).

¹⁴⁰ 23 C.F.R. § 774.17.

¹⁴¹ See *id.* §§ 774.5, 774.7, 774.9.

¹⁴² Section 4(f) Policy Paper, *supra* note 124, available at <http://environment.fhwa.dot.gov/4f/4fpolicy.asp#addex30>.

¹⁴³ These programmatic evaluations may be viewed at the FHWA's Section 4(f) Web page, available at <http://environment.fhwa.dot.gov/4f/4fnationwideevals.asp>.

¹⁴⁴ 23 C.F.R. § 774.3(d).

species depend may be conserved” and “to provide a program for the conservation of such endangered species and threatened species.”¹⁴⁵ The ESA further adopts a policy “that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of” the ESA’s objectives.¹⁴⁶ The ESA is administered jointly by Fish & Wildlife and the Department of Commerce’s National Marine Fisheries Services, better known as NOAA-Fisheries. NOAA-Fisheries is responsible for marine species, while the Fish & Wildlife is responsible for all freshwater organisms and terrestrial species. The agencies have issued joint regulations governing the implementation of critical portions of the ESA.¹⁴⁷

The protections of the ESA are targeted at species that have been listed as endangered or threatened by the Fish & Wildlife pursuant to the listing procedures of Section 4 of the Act.¹⁴⁸ Concurrently with the listing of a species, the ESA directs the Secretary of the Interior, “to the maximum extent prudent and determinable,” to designate the “critical habitat” of the species.¹⁴⁹ The ESA contains two provisions that may be applicable to transportation projects: the Section 7 consultation requirements and the Section 9 prohibition on “takings” of listed species.

a. Section 7 Consultation.—Section 7 of the ESA requires each federal agency to insure that any action the agency authorizes, funds, or carries out will not likely jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of such a species’ critical habitat.¹⁵⁰ To that end, the action agency is required to determine, using the best scientific and commercial data available, whether any listed species may be present in the area affected by the agency action, and to consult with Fish & Wildlife whenever the action is “likely to affect a listed species.”¹⁵¹

¹⁴⁵ 16 U.S.C. § 1531(b).

¹⁴⁶ *Id.* § 1531(c)(1).

¹⁴⁷ 50 C.F.R. Parts 401–453. For convenience, references in the text to Fish & Wildlife shall mean Fish & Wildlife or NOAA-Fisheries, as appropriate, depending on the type of species involved.

¹⁴⁸ *See* 16 U.S.C. § 1533.

¹⁴⁹ *Id.* § 1533(a)(3)(A).

¹⁵⁰ For a discussion of Section 7, *see* *Sierra Club v. Corps of Engineers*, 295 F.3d 1209, 1211-14 (11th Cir. 2002).

¹⁵¹ 16 U.S.C. §§ 1536(a)(2)-(3).

The Section 7 process is initiated by a request from an agency to Fish & Wildlife for an opinion on whether a listed species may be present in the action area.¹⁵² If Fish & Wildlife advises the agency that no protected species are present, the consultation requirement ends. If, however, Fish & Wildlife responds that there may be an endangered or threatened species in the action area, the agency is required to prepare a biological assessment.¹⁵³ The biological assessment identifies any listed species within the area and evaluates the potential effects of the action on those species.¹⁵⁴

If the biological assessment determines that there are no listed species or critical habitat affected by the action, or that the agency action will not jeopardize a listed species or adversely affect its critical habitat, and Fish & Wildlife concurs in that determination, the project may proceed.¹⁵⁵ Alternatively, Fish & Wildlife and the agency may engage in informal consultation in which Fish & Wildlife may suggest modifications to the action that will avoid any likely adverse effects on listed species or their critical habitats.¹⁵⁶

If the biological assessment concludes that the agency action may have an impact on a listed species, the agency must initiate “formal consultation” with Fish & Wildlife.¹⁵⁷ Formal consultation requires Fish & Wildlife to prepare a biological opinion, which determines whether the action and its cumulative effects may cause jeopardy to a listed species.¹⁵⁸ If the biological opinion concludes that jeopardy may occur, the Fish & Wildlife may provide “reasonable and prudent alternatives” which the agency might take to avoid harming the species.¹⁵⁹ A statement and authorization may also be included in the biological opinion permitting the “incidental taking” of a listed species, if the Fish & Wildlife determines that such a taking

¹⁵² This request is mandated by Section 7(c)(1), 16 U.S.C. § 1536(c)(1).

¹⁵³ According to the implementing regulations, a biological assessment is also required for all federal actions which constitute a “major construction activity,” whether or not a listed species is suspected in the area. 50 C.F.R. § 402.12(b)(1).

¹⁵⁴ 16 U.S.C. § 1536(c)(1); *see also* 50 C.F.R. § 402.02 (definition of biological assessment).

¹⁵⁵ *Id.* § 402.12(k).

¹⁵⁶ *Id.* § 402.13(b).

¹⁵⁷ *Id.* § 402.14(a). There are a few exceptions to this requirement. *See id.* § 402.14(b).

¹⁵⁸ 16 U.S.C. § 1536(b)(3); 50 C.F.R. §§ 402.14(g)-(h).

¹⁵⁹ 16 U.S.C. § 1536(b)(3)(A).

will not cause jeopardy.¹⁶⁰ Incidental takings are “takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant.”¹⁶¹ Among other things, the incidental take statement in a biological opinion may 1) specify the impact the incidental take will have on the affected species; 2) specify the reasonable and prudent measures deemed by Fish & Wildlife to be necessary or appropriate to minimize any such impact; and 3) set forth terms and conditions that must be complied with by the agency to implement such reasonable and prudent measures.¹⁶²

As the Ninth Circuit has explained, an incidental take statement provides a “safe harbor...immunizing persons from Section 9 liability and penalties for takings committed during activities that are otherwise lawful and in compliance with its terms and conditions.”¹⁶³ An action agency is “technically free to disregard the Biological Opinion and proceed with its proposed action...[but] it does so at its own peril.”¹⁶⁴ But if the agency chooses to disregard the terms and conditions included in an incidental take statement, and a taking does result, the action agency or the applicant may be exposed to significant civil and criminal penalties under Section 9.¹⁶⁵ Thus, an agency may rely on a biological opinion by Fish & Wildlife, provided such reliance is not itself “arbitrary and capricious.”¹⁶⁶

Fish & Wildlife has entered into a number of state-level programmatic agreements with FHWA that govern Section 7 compliance for a variety of routine transportation projects.¹⁶⁷ These agreements typically identify standardized effects determinations using types of construction activities and existing records of species and habitat

conditions. The agreements also contain standardized conservation conditions that serve as reasonable and prudent alternatives for purposes of Section 7.¹⁶⁸

b. The Takings Prohibition.—Section 9 of the ESA makes it unlawful “for any person...to...‘take any [endangered] species within the United States or the territorial sea of the United States.’”¹⁶⁹ A “taking,” for purposes of the ESA, “means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct.”¹⁷⁰ By regulation, the term “harm” has been defined to “mean[] an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”¹⁷¹ The ESA defines the term “person” to include, among others, “any officer, employee, agent, department, or instrumentality of the Federal Government, or of any State, municipality, or political subdivision of a State.”¹⁷²

Accordingly, an agency action that significantly modifies the habitat of an endangered species may, in some circumstances, constitute a violation of the ESA. For that reason, a transportation project that causes, through habitat modification, an incidental take not authorized through the Section 7 consultation process may subject the project sponsor and the federal agency to liability under Section 9.

3. Section 106 of the National Historic Preservation Act

The National Historic Preservation Act (NHPA) includes “a series of measures designed to encourage preservation of sites and structures of historic, architectural, or cultural significance.”¹⁷³ It

¹⁶⁰ 50 C.F.R. § 402.14(i)(1).

¹⁶¹ *Id.* § 402.02.

¹⁶² *Id.* §§ 402.14(i)(1)(i), (ii), and (iv).

¹⁶³ *Arizona Cattle Growers Ass’n v. U.S. Fish and Wildlife Service*, 273 F.3d 1229, 1239 (9th Cir. 2001).

¹⁶⁴ *Id.* (quoting *Bennett v. Spear*, 520 U.S. 154, 170 (1997)).

¹⁶⁵ *Id.*

¹⁶⁶ *See, e.g., Florida Keys Citizens Coalition, Inc. v. U.S. Army Corps of Engineers*, 374 F. Supp. 2d 1116, 1162 (S.D. Fl. 2005).

¹⁶⁷ These programmatic agreements can be found in a library maintained by the American Association of State Highway and Transportation Officials. The library is available at http://environment.transportation.org/pal_database/view_agreements.aspx?category_filter=4.

¹⁶⁸ For a specific example, see *Programmatic Biological Assessment—Effects on the Indiana Bat Associated with Minor Road Construction Projects in Kentucky*, available at <http://transportation.ky.gov/Environmental-Analysis/EnvironmentalResources/2012ProgrammaticBAFINAL.pdf>.

¹⁶⁹ 16 U.S.C. § 1538(a)(1)(B).

¹⁷⁰ *Id.* § 1532(19).

¹⁷¹ 50 C.F.R. § 17.3. This regulation was sustained against challenge in *Babbitt v. Sweet Home Chapter of Communities for a Greater Oregon*, 515 U.S. 687 (1995).

¹⁷² 16 U.S.C. § 1532(13).

¹⁷³ *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 107 n.1 (1978).

creates a National Register of Historic Places (National Register) and procedures for placing sites and structures on the National Register.¹⁷⁴ The NHPA also created the Advisory Council on Historic Preservation (Advisory Council)¹⁷⁵ and authorized it to promulgate rules governing the Section 106 compliance process.¹⁷⁶

Of particular importance to transportation projects, Section 106 of the NHPA requires federal agencies, “prior to the approval of the expenditure of any Federal funds on [an] undertaking or prior to the issuance of any license,” to “take into account the effect of any undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register.”¹⁷⁷ An “undertaking” is broadly defined to include

a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including (A) those carried out by or on behalf of the agency; (B) those carried out with Federal financial assistance; (C) those requiring a Federal permit license, or approval; and (D) those subject to State or local regulation administered pursuant to a delegation or approval by a Federal agency.¹⁷⁸

In brief, the Section 106 review process requires the undertaking agency to (1) identify the resources that are listed or eligible for listing on the National Register and that may be affected by the federal undertaking; (2) determine if any effect could be adverse to such resources; and (3) if so, consult with the State Historic Preservation Officer (SHPO)¹⁷⁹ or Tribal Historic Preservation Officer (THPO)¹⁸⁰ and other appropriate parties to develop alternatives to mitigate any adverse effects on the historic properties.¹⁸¹

¹⁷⁴ 16 U.S.C. § 470a.

¹⁷⁵ *Id.* § 470i.

¹⁷⁶ *Id.* § 470s.

¹⁷⁷ *Id.* § 470f.

¹⁷⁸ *Id.* § 470w(7).

¹⁷⁹ An SHPO is the official appointed or designated to administer a state historic preservation program or a designee of the SHPO. 36 C.F.R. § 800.16(v) (2013).

¹⁸⁰ A THPO is “the tribal official appointed by the tribe’s chief governing authority or designated by a tribal ordinance or preservation program who has assumed the responsibilities of the SHPO for purposes of Section 106 compliance on tribal lands.” *Id.* § 800.16(w). For convenience, references in the text to the “SHPO” should be understood to include the THPO where appropriate.

¹⁸¹ See *Tyler v. Cuomo*, 236 F.3d 1124, 1128-29 (9th Cir. 2000) (*citing* 36 C.F.R. §§ 800.4(b) & (c), 800.5(e)).

The Council’s rules specify that an agency undertaking must “use reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey.”¹⁸² To determine historic property eligibility for inclusion in the National Register, the agency must follow specific procedures, including consultation with the SHPO.¹⁸³ An assessment of the effects of the action on protected resources is likewise to be made in consultation with the SHPO, and in consideration of public comments.¹⁸⁴ Council regulations specify:

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.... Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.¹⁸⁵

If the agency determines that an undertaking will have no adverse effect on protected resources, the agency may propose a finding of no adverse effect. The agency must then notify the SHPO and any other consulting parties, provide appropriate documentation supporting the finding to such parties, and allow for a 30-day review period.¹⁸⁶ If the consulting parties agree or do not voice an objection within the 30-day review period, the agency may proceed with the undertaking, and its responsibilities under Section 106 are completed.¹⁸⁷ If the SHPO disagrees with the agency’s proposed finding, the agency may consult further with the SHPO or request the Council to review the finding.¹⁸⁸ If the Council reviews the finding, the agency may modify its proposed finding or adhere to its initial proposal, so long as the agency provides evidence that the Council’s opinion was considered.¹⁸⁹ If the agency adheres to its finding of no adverse effect, the Section 106 process is complete.

If the agency finds that the undertaking will have adverse effects on protected resources, the

¹⁸² 36 C.F.R. § 800.4(b)(1) (2013).

¹⁸³ *Id.* § 800.4(c)(1).

¹⁸⁴ *Id.* § 800.5(a).

¹⁸⁵ *Id.* § 800.5(a)(1).

¹⁸⁶ *Id.* § 800.5(c).

¹⁸⁷ *Id.* §§ 800.5(c)(1), (d)(1).

¹⁸⁸ *Id.* § 800.5(c)(2).

¹⁸⁹ *Id.* § 800.5(c)(3).

agency may request the Council to participate or further consult with the SHPO “to develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize or mitigate adverse effects on historic properties.”¹⁹⁰ The process to develop and evaluate such alternatives includes notifying the Council and providing a period for public comment. If the agency and the SHPO agree on an appropriate alternative, or if the Council participates and likewise agrees, the parties may enter into a memorandum of agreement, which will govern how the undertaking is to be completed.¹⁹¹ The agency must, however, exercise independent judgment in its Section 106 determinations; NHPA requires that, “the determinations of effect, adverse effect, or no effect by the appropriate federal agency official be an independent one, and not simply a ‘rubber stamp’ of the state’s work.”¹⁹²

If the consulting parties cannot reach agreement, the Council must be given an opportunity to provide comments to the agency, which in turn must consider such comments in reaching a final decision.¹⁹³ The Council’s regulations provide that the undertaking agency need not defer to the Council’s comments or, indeed, those of the SHPO: “Having complied with [Section 106’s] procedural requirements the Federal agency may adopt a course of action it believes is appropriate. While the Advisory Council comments must be taken into account and integrated into the decision-making process, program decisions rest with the agency implementing the undertaking.”¹⁹⁴ The courts have agreed that Advisory Council comments are “advisory only” and “do not and cannot control agency decisionmaking...”¹⁹⁵ The agency’s responsibility is fulfilled when it can “demonstrate that it has read and considered” the recommendations of the SHPO and of the Council.¹⁹⁶

Like NEPA, the Section 106 mandate to consider adverse effects and alternatives thus is essentially a procedural mandate; it does not re-

quire the undertaking agency to accept the alternative preferred by the SHPO/THPO or by the Council. Indeed, the D.C. Circuit has stated that, “[l]ike Section 102 of NEPA, Section 106 of the Historic Preservation Act is a ‘stop, look, and listen’ provision; it requires federal agencies to take into account the effect of their actions on structures eligible for inclusion in the National Register of Historic Places.”¹⁹⁷ The agency’s final decision is reviewed under the deferential “arbitrary and capricious” standard of review.¹⁹⁸

As with the ESA, FHWA has entered into a number of state-level programmatic agreements governing the Section 106 process. These agreements vary from state-to-state, but often include provisions for surveys for particular historic resources, such as bridges, and standard treatments for projects that affect these resources.¹⁹⁹

D. Structuring Environmental Review: Agency Coordination and Public Participation

As discussed above, NEPA’s basic purpose is to foster the informed consideration of environmental impacts within agency decision processes. To that end, NEPA and CEQ regulations establish a broadly participatory process for developing an EIS and documenting compliance with other applicable legal requirements. FHWA regulations treat NEPA as an “umbrella process” designed to facilitate compliance with a range of agency obligations under statutes like NEPA and the other resource protection statutes discussed in the preceding section. Environmental assessment and project development may, and frequently do, involve a variety of stakeholders with widely varying viewpoints and conflicting values. These stakeholders may include state and federal agencies, as well as organizations and individual members of the public that may have an interest in the agency’s proposed action. Sorting out the appropriate roles and responsibilities of these various stakeholders and resolving conflicts among them can, at times, create confusion and unneces-

¹⁹⁰ *Id.* § 800.6(a)

¹⁹¹ *Id.* §§ 800.6(b), (c).

¹⁹² *Hayne Blvd Camps Preservation Assn. v. Julich*, 143 F. Supp. 2d 628, 634 (ED La. 2001) (quoting *Hall County Historical Society, Inc. v. Georgia Dept of Transp.*, 447 F. Supp. 741, 751-52 (N.D. Ga. 1978)).

¹⁹³ *Id.* § 800.7.

¹⁹⁴ 36 C.F.R. § 60.2(a).

¹⁹⁵ *Concerned Citizens Alliance, Inc. v. Slater*, 176 F.3d 686, 696 (3d Cir. 1999)

¹⁹⁶ *Id.*

¹⁹⁷ *Illinois Commerce Comm’n v. ICC*, 848 F.2d 1246, 1260-61 (D.C. Cir. 1988).

¹⁹⁸ *Concerned Citizens Alliance*, 176 F.3d at 702.

¹⁹⁹ See, e.g., *Programmatic Agreement Among the Federal Highway Administration, the Indiana Department of Transportation, the Indiana State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding Management and Preservation of Indiana’s Historic Bridges*, available at www.in.gov/indot/files/HistoricBridgePA.pdf.

sary costs and delays in the environmental review process. In this section, we consider the legal requirements pertaining to the participation of stakeholders and the procedures that must be followed in the environmental review process.

1. Designation of Agency Roles in the Environmental Review Process

The chief actor in the environmental review process is the “lead agency,” which CEQ regulations define as “the agency or agencies preparing or having taken primary responsibility for preparing the environmental impact statement.”²⁰⁰ FHWA regulations describe the responsibilities of the lead agency more generally to include “managing the environmental review process and the preparation of the appropriate environmental review documents,” which may include any necessary documentation to support a categorical exclusion, a finding of no significant impact, Section 4(f) determinations, and findings under NHPA Section 106.²⁰¹ For transportation projects subject to approval by FHWA, the lead agency must be FHWA.²⁰² Moreover, any project sponsor that is a state or local government agency seeking FHWA funding for a transportation project must serve as a “joint lead agency...for the purpose of preparing any environmental document under [NEPA].”²⁰³ As a joint lead agency, a state or local sponsoring agency is authorized to, and typically will, prepare any documents to support FHWA action, so long as FHWA provides guidance and independently evaluates and approves such documents.²⁰⁴ More recently, Congress has authorized the Secretary of Transportation to enter into programmatic agreements with the states that authorize the states to “determine on behalf of [FHWA]” whether a project may be processed as a categorical exclusion under NEPA.²⁰⁵

When an EIS is to be prepared, the lead agency is responsible for publishing a notice of intent in the *Federal Register*, which describes the proposed action and possible alternatives, as well as a proposed “scoping” process.²⁰⁶ The scoping process “consists of the range of actions, alternatives, and

impacts to be considered in the [EIS].”²⁰⁷ As part of this process, the lead agency is responsible for inviting affected federal, state, and local agencies, Indian tribes, and other interested persons to participate in the environmental review process.²⁰⁸ NEPA itself requires the lead agency to “consult and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact” the agency’s proposal may involve.²⁰⁹ Under CEQ regulations, these consulting agencies are termed “cooperating agencies.”²¹⁰ They may include, for example, the U.S. Army Corps of Engineers (the Corps) (permit authority under the CWA), the U.S. Fish & Wildlife Service (responsible for implementing the ESA), the Advisory Council on Historic Preservation (implementing the NHPA), and a variety of state and local agencies.²¹¹ A special consulting role is assigned to the EPA, which, under the terms of Section 309 of the CAA, is required to “review and comment in writing on the environmental impact statement of any matter relating to duties and responsibilities granted pursuant to [the Clean Air Act] or other provisions of the authority of [EPA], contained in any...newly authorized Federal projects for construction and any major Federal agency action...to which [NEPA’s EIS requirement] applies....”²¹²

The evident purpose of these consultation requirements is not only to ensure that agencies with expertise in environmental matters can contribute to the action agency’s understanding of the impacts of its actions, but also to reduce the delays and costs associated with an uncoordinated environmental review process. Broadly requiring the participation of agencies that may have statutory responsibilities that affect projects in the early stages of the EIS process may promote concurrent and coordinated agency action to reduce duplicative efforts and delay, and may reduce points of conflict or concern among agencies. CEQ regulations have long encouraged the employment

²⁰⁰ 40 C.F.R. § 1508.16.

²⁰¹ 23 C.F.R. § 771.109(c)(1).

²⁰² See 23 U.S.C. § 139(a)(4); 23 C.F.R. § 771.107(g).

²⁰³ 23 U.S.C. § 139(c)(3).

²⁰⁴ *Id.*

²⁰⁵ 23 U.S.C. § 109 Note, P.L. 112-141, Title I, § 1318(d)(2), 126 Stat. 551(2012).

²⁰⁶ 40 C.F.R. §§ 1501.7, 1508.22.

²⁰⁷ *Id.* § 1508.25.

²⁰⁸ *Id.* § 1501.7(a)(1).

²⁰⁹ 42 U.S.C. § 4332(2)(C).

²¹⁰ 40 C.F.R. § 1508.5.

²¹¹ See Center for Environmental Excellence by AASHTO, *NEPA Process*, http://environment.transportation.org/environmental_issues/nepa_process/ (describing cooperating agencies).

²¹² 42 U.S.C. § 7609(a).

of inclusive approaches early in EIS development.²¹³

More recently, Congress itself has stepped in to structure the environmental review process for transportation projects, emphasizing the need for greater efficiency and coordination among federal, state, and local agencies.²¹⁴ To this end, Congress created an additional category of agencies—“participating agencies”—that may be invited by lead agencies to participate in the environmental review process.²¹⁵ Lead agencies, participating agencies, and cooperating agencies have overlapping, but distinct roles in the environmental review process for transportation projects.

In addition to the responsibilities described above, lead agencies for transportation projects are now responsible for establishing a “coordination plan.”²¹⁶ The plan governs public and agency participation in, and comment on, the environmental review process, and may include a schedule for completion of the process.²¹⁷

Participating agencies involved in the environmental review process for transportation projects may broadly include any federal or non-federal agencies “that may have an interest in the project.”²¹⁸ They are charged with 1) carrying out their obligations under applicable law “concurrently, and in conjunction, with the review required under [NEPA]; and 2) taking the necessary policy and procedural steps “to ensure completion of the environmental review process in a timely, coordinated, and environmentally responsible manner.”²¹⁹ Lead agencies are now required to involve participating agencies in defining the purpose of and need for a project, determining the range of alternatives to be considered in the EIS, and selecting the “methodologies to be used and level of detail required in the analysis of each alternative for a project.”²²⁰ The lead agency none-

theless remains responsible for making final decisions on these matters.²²¹ Participating agencies are charged with the duty to work cooperatively with lead agencies to identify and resolve issues that might delay the environmental review process.²²²

Cooperating agencies have greater responsibilities and more involvement in the environmental review process than do participating agencies. Like participating agencies, they are required to participate in the NEPA process at the earliest practicable time, and must be involved in the scoping process.²²³ A distinguishing characteristic of cooperating agencies is that they are permitted, at the request of the lead agency, to assume responsibility for preparing portions of the EIS or gathering information and providing analysis to support those portions of the EIS over which the agency has special expertise.²²⁴ Perhaps most importantly, under CEQ’s regulations, “[a] cooperating agency may adopt without recirculating the [EIS] of a lead agency when, after an independent review of the statement, the cooperating agency concludes that its comments and suggestions have been satisfied.”²²⁵ This can significantly reduce duplication of effort, particularly when a cooperating agency must itself prepare an EIS for any action it takes in connection with the project, for example, the Corps’ regulatory decision to issue a permit under Section 404 of the CWA.²²⁶

The most recent transportation legislation, MAP-21, includes provisions to ensure effective and responsible participation by participating agencies and cooperating agencies. These provisions include new dispute resolution procedures and financial penalties for agencies that fail to meet important deadlines and responsibilities.²²⁷

²¹³ *Id.* §§ 1500.5(b), (d), (g), and (h).

²¹⁴ The important pieces of legislation that have restructured the process of environmental review are Section 6002 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), and various provisions in the Moving Ahead for Progress in the 21st Century Act (MAP-21). Many of these newer requirements are codified in Section 139 of Title 23 of the United States Code.

²¹⁵ 23 U.S.C. § 139(d).

²¹⁶ 23 U.S.C. § 139(g)(1)(A).

²¹⁷ 23 U.S.C. § 139(g)(1)(B).

²¹⁸ 23 U.S.C. § 139(d)(2).

²¹⁹ 23 U.S.C. §§ 139(d)(7)(A), (B).

²²⁰ 23 U.S.C. §§ 139(f)(1), (f)(4)(A), (f)(4)(C).

²²¹ 23 U.S.C. §§ 139(f)(2), (f)(4)(B), (f)(4)(C).

²²² 23 U.S.C. § 139(h)(3).

²²³ 40 C.F.R. §§ 1501.6(b)(1)-(2).

²²⁴ 40 C.F.R. § 1501.6(b)(3).

²²⁵ 40 C.F.R. § 1506.3(c).

²²⁶ See *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) Section 6002 Environmental Review Process Final Guidance*, <http://www.fhwa.dot.gov/hep/section6002/index.htm>, at Question 30 [hereinafter “Environmental Review Process Final Guidance”]. For an example, see *Sierra Club v. U.S. Army Corps of Engineers*, 295 F.3d 1209 (11th Cir. 2002).

²²⁷ See 23 U.S.C. §§ 139(h).

2. Public Participation in the Environmental Review Process

By its terms, NEPA does not expressly address the extent to which interested members of the public may or must be involved in the environmental review process. It does provide that comments obtained from cooperating agencies must be made available “to the President, the [CEQ] and to the public” and must “accompany the proposal through the existing agency review processes.”²²⁸ The CEQ, however, has concluded that to serve the basic purposes of NEPA, the environmental review process “must ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.”²²⁹ To this end, CEQ regulations declare that, “to the fullest extent possible,” federal agencies shall “[e]ncourage and facilitate public involvement in decisions which affect the quality of the human environment.”²³⁰ The regulations specifically require agencies to give notice to the public of NEPA-related hearings, public meetings, and the availability of environmental documents.²³¹ CEQ guidance concludes that this requirement applies to EAs.²³² In accordance with this conclusion, FHWA regulations provide that EAs must be made available to the public and, when the agency expects to issue a FONSI, provide for public review for at least 30 days before a final decision is made.²³³ Neither CEQ nor FHWA regulations specifically address public notice or participation in agency decisions to invoke a categorical exclusion for particular projects, though FHWA’s strongly suggest that opportunities for public involvement be provided.²³⁴

When an agency determines that an EIS is to be prepared, CEQ regulations require that a notice of intent to prepare an EIS be published in the Federal Register at the earliest practicable time.²³⁵ As noted above, for transportation projects, Congress has required the lead agency to

establish a plan to coordinate public and agency participation in the environmental review process.²³⁶ In addition, the lead agency must provide opportunities for public involvement in determining the purpose and need of the project, as well as the range of alternatives to be considered.²³⁷ For the federal-aid highway program, FHWA regulations require each state to have a “public involvement/public hearing program” that includes such opportunities for public involvement.²³⁸ More generally, the required state program must provide for “[c]oordination of public activities and public hearings with the entire NEPA process.”²³⁹

CEQ regulations also require that, with the exception of proposals for legislation, an EIS be prepared in two stages consisting of a draft and final EIS.²⁴⁰ Agencies are directed to obtain comments on the draft, and must “request comments from the public, affirmatively soliciting comments from those persons or organizations who may be interested or affected.”²⁴¹ The regulations also authorize, but do not require, agencies to request comments on the final EIS before a final decision is made.²⁴² The agencies are also required to consider comments on a draft EIS, and to respond to them in the final EIS.²⁴³ FHWA regulations are to like effect,²⁴⁴ but provide for a 30-day public review of a final EIS before a final decision is made and a record of decision (ROD) is issued.²⁴⁵

CEQ regulations require agencies to hold public hearings “whenever appropriate or in accordance with statutory requirements.”²⁴⁶ Most courts have held that an agency is not required to hold a public hearing, even when such a hearing might be beneficial; the decision lies within the agency’s discretion.²⁴⁷ For some FHWA projects,

²²⁸ 42 U.S.C. § 4332(2)(C).

²²⁹ 40 C.F.R. § 1500.1(b).

²³⁰ 40 C.F.R. § 1500.2(d).

²³¹ 40 C.F.R. § 1506.6(b).

²³² Council on Environmental Quality, Memorandum to Agencies: 40 Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations, 46 Fed. Reg. 18026, 18037 (March 23, 1981).

²³³ 23 C.F.R. § 771.119(h).

²³⁴ See 23 C.F.R. § 771.111(h)(2)(ii).

²³⁵ 40 C.F.R. § 1501.7

²³⁶ 23 U.S.C. § 139(g)(1)(A).

²³⁷ 23 U.S.C. §§ 139(f)(1) & (f)(4)(A).

²³⁸ 23 C.F.R. § 771.111(h)(2)(vii).

²³⁹ 23 C.F.R. § 771.111(h)(2)(i).

²⁴⁰ 40 C.F.R. § 1502.9.

²⁴¹ 40 C.F.R. § 1503.1(a)(4).

²⁴² 40 C.F.R. § 1503.1(b).

²⁴³ 40 C.F.R. § 1503.4(a).

²⁴⁴ See 23 C.F.R. §§ 771.123, 771.125 (draft and final EIS).

²⁴⁵ 23 C.F.R. §§ 771.125(g), 771.127(a).

²⁴⁶ 40 C.F.R. § 1506.6(c).

²⁴⁷ See, e.g., *Friends of Ompompanoosuc v. FERC*, 968 F.2d 1549, 1557 (2d Cir. 1992).

public hearings are required by statute²⁴⁸ or by the agency's implementing regulations.²⁴⁹

E. Emergency Provisions Applicable to Environmental Review of Transportation Projects

There are a number of emergency provisions that may be applied in reviewing transportation projects for compliance with environmental requirements. In general, these provisions fall into two categories: 1) exemptions; and 2) provision for alternative arrangements. An exemption renders particular planning or regulatory requirements inapplicable to a project. By contrast, provisions for alternative arrangements modify, but do not eliminate, particular planning and regulatory measures to further overriding public policy objectives of protecting the public health, safety, and welfare in the face of emergencies.

1. NEPA Exemptions

a. FEMA Disaster and Emergency Assistance.—FEMA, acting under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Stafford Act) often plays a central role in assisting communities affected by major disasters and emergencies.²⁵⁰ The authorities under the Stafford Act may be invoked by FEMA only when the president has issued a declaration of a major disaster or emergency.²⁵¹ Assistance under the Stafford Act can cover a range of response and recovery actions. Section 403, for example, authorizes federal agencies, at the direction of the president, to provide essential assistance in the event of a major disaster, including:

- debris removal;
- road clearance and construction of temporary bridges if necessary to provide essential services or perform emergency tasks;
- demolition of unsafe structures; and
- actions to reduce immediate threats to life, property, or public health and safety.²⁵²

Section 406 similarly authorizes the president to make contributions to the cost of repairing, restoring, reconstructing, or replacing any “public

²⁴⁸ See 23 U.S.C. § 128.

²⁴⁹ 23 C.F.R. § 771.111(h).

²⁵⁰ The Stafford Act includes definitions of an “emergency” and a “major disaster.” See 42 U.S.C. §§ 5122(1)-(2).

²⁵¹ See 42 U.S.C. §§ 5170(a), 5191.

²⁵² *Id.* § 5170b(a)(3).

facility.”²⁵³ A public facility is defined to include “[a]ny non-Federal-aid street, road, or highway.”²⁵⁴

Section 316 of the Stafford Act

Section 316 of the Stafford Act exempts disaster actions from NEPA's environmental assessment process. That section provides that “[a]ny action which is taken or assistance which is provided pursuant to section 402, 403, 406, 407, or 502, including such assistance provided pursuant to the procedures provided for in section 422, which has the effect of restoring a facility substantially to its condition prior to the disaster or emergency, shall not be deemed a major Federal action significantly affecting the quality of the human environment within the meaning of [NEPA].”²⁵⁵

In *Hayne Blvd. Camps Preservation Ass'n, Inc. v. Julich*, plaintiffs challenged a FEMA decision to provide funds to the Orleans Levee District to remove the piers and pilings in Lake Ponchartrain that supported camps destroyed by Hurricane Georges in 1998.²⁵⁶ The plaintiffs claimed that FEMA had violated NEPA by failing to evaluate the environmental impact of its action. They argued that Section 316's exemption did not apply because the action funded by FEMA did not restore a facility to its pre-disaster condition. The court rejected this argument, noting that FEMA regulations provide that various actions undertaken pursuant to the Stafford Act, including debris removal, are exempt from NEPA without regard to whether those actions restore a facility to its pre-disaster condition.²⁵⁷ The court noted that when a court reviews an agency's interpretation of a statute the agency administers, “a court need not find that it is the only permissible construction that the agency might have adopted but only that the agency's understanding of this statute is sufficiently rational.”²⁵⁸ The court concluded that FEMA's regulation met this deferential standard.²⁵⁹ It should be emphasized, however, that Section 316 does not by its terms exempt actions

²⁵³ *Id.* § 5172(a)(1)(A).

²⁵⁴ *Id.* § 5122(10)(B).

²⁵⁵ *Id.* § 5159.

²⁵⁶ 143 F. Supp. 2d 628, 635 (E.D. La. 2001).

²⁵⁷ FEMA's regulation can be found at 44 C.F.R. § 10.8(c)(1).

²⁵⁸ *Id.* at 635 (citing *Chemical Mfrs. Ass'n v. Natural Res. Def. Council*, 470 U.S. 116, 125 (1985)).

²⁵⁹ *Id.*

from the requirements of environmental laws other than NEPA. Indeed, in *Hayne Blvd. Camps Preservation Ass'n*, the court held that FEMA was obligated to comply with the requirements of Section 106 of the National Historic Preservation Act and the Endangered Species Act.²⁶⁰

FEMA Categorical Exclusions

In addition to the exemption from NEPA provided by Section 316 of the Stafford Act, FEMA has promulgated regulations creating a number of categorical exclusions. While there may be considerable overlap among these categorical exclusions and the exemptions in Section 316, it is useful to provide the following short list of some of these categorical exclusions:

- Demolition of structures and other improvements or disposal of uncontaminated structures and other improvements to permitted offsite locations, or both;
- Repair, reconstruction, restoration, elevation, retrofitting, upgrading to current codes and standards, or replacement of any facility in a manner that substantially conforms to the preexisting design, function, and location; and
- Improvements to existing facilities and the construction of small scale hazard mitigation measures in existing developed areas with substantially completed infrastructure, when the immediate project area has already been disturbed, and when those actions do not alter basic functions, do not exceed capacity of other system components, or modify intended land use; provided the operation of the completed project will not, of itself, have an adverse effect on the quality of the human environment.²⁶¹

FEMA's regulations conform to CEQ regulations by requiring the preparation of an environmental assessment for actions normally subject to a categorical exclusion if "extraordinary circumstances" are present. The regulations identify a number of specific circumstances that will be deemed extraordinary.²⁶² Like the Stafford Act Section 316 exemptions, FEMA's categorical exclusions do not exempt the action from, or alter the requirements of, other applicable environmental laws.

b. FHWA Emergency Provisions.—In Section 1315(a) of MAP-21, Congress directed the Secretary of Transportation to conduct a rulemaking to establish a categorical exclusion from NEPA "for the repair or reconstruction of any road, highway, or bridge that is in operation or under construction when damaged by an emergency declared by the Governor of the State and concurred in by the Secretary, or for a disaster or emergency declared by the President" under the Stafford Act.²⁶³ The statute restricts repair and reconstruction projects eligible for the categorical exclusion to those that are 1) "in the same location with the same capacity, dimensions, and design as the original road, highway, or bridge"; and 2) commenced within 2 years of the emergency or disaster declaration.²⁶⁴

FHWA published a final rule in conformance with Section 1315(a) on February 19, 2013.²⁶⁵ The final rule is codified as a new c-list categorical exclusion at 23 C.F.R. § 771.118(c)(9). Based on its own experience and the suggestion of commenters, FHWA's emergency rule is somewhat broader than that suggested by Section 1315(a). In addition to roads, highways, and bridges, the rule applies to the repair, reconstruction, retrofitting, or replacement of tunnels and transit facilities and ancillary transportation facilities, such as pedestrian/bicycle paths and bike lanes.²⁶⁶ The rule also extends the categorical exclusion to include upgrades to meet existing codes and standards as well as those upgrades needed to address changed conditions, so long as the repair, restoration, or replacement occurs within the existing right-of-way and conforms substantially to the design, function, and location of the original facility.²⁶⁷

In one respect, however, the emergency categorical exclusion is narrower in scope than what the language of Section 1315(a) authorizes. Section 1315(a) authorizes a categorical exclusion for "an emergency declared by the Governor of the State and concurred in by the Secretary." The statutory term "emergency" is not defined and could reasonably be interpreted to include catastrophic facility failures, regardless of the cause of those failures. Such a failure might include, for example, a bridge or tunnel collapse caused by an existing condition or progressive deterioration in structural elements. A failure of this sort may

²⁶⁰ *Id.* at 634.

²⁶¹ 44 C.F.R. §§ 10.8(d)(2)(xii),(xv) & (xvi).

²⁶² *Id.* § 10.8(d)(3).

²⁶³ Pub. L. No. 12-141, § 1315(a), 126 Stat. 549.

²⁶⁴ *Id.* § 1315(a)(1)-(2).

²⁶⁵ 78 Fed. Reg. 11593 (Feb. 19, 2013).

²⁶⁶ 23 C.F.R. § 771.117(c)(9)(ii).

²⁶⁷ *Id.* § 771.117(c)(9)(ii)(A).

have profound impacts on public safety and transportation needs, but may not rise to the level of an emergency warranting a presidential declaration under the Stafford Act. FHWA, however, decided to limit the scope of the rule to emergencies (other than Stafford Act emergencies and major disasters), that fall within the scope of the emergency relief program established by 23 U.S.C. § 125. That program applies only to emergencies caused by “a natural disaster over a wide area” or a “catastrophic failure from any external cause.”²⁶⁸ It does not apply to catastrophic failures that are “primarily the result of existing conditions” or “primarily attributable to gradual and progressive deterioration or lack of proper maintenance.”²⁶⁹ FHWA explained that this limitation would “ensure consistency” and “avoid the need to create a separate and independent process for the Secretary’s concurrence with a Governor’s emergency declaration for catastrophic failures that do not qualify for the emergency relief programs.”²⁷⁰

FHWA’s emergency rule, like FEMA’s categorical exclusions, differs from the exclusion provided in Section 316 of the Stafford Act in one important respect. Because it is a categorical exclusion, it is limited by the possibility that “unusual circumstances” may render it inapplicable.²⁷¹ As noted above, unusual circumstances may include significant environmental impacts, substantial controversy on environmental grounds, significant impacts on Section 4(f) properties or properties protected by Section 106 of the National Historic Preservation Act, or inconsistencies with local, state, or federal environmental law.²⁷² Like the exclusion under Section 316 of the Stafford Act, however, the emergency rule applies only to NEPA obligations; it does not exempt the project from the requirements of other applicable environmental laws.

c. CEQ’s Emergency Rule.—CEQ regulations implementing NEPA include an emergency provision. It provides:

Where emergency circumstances make it necessary to take an action with significant environmental impact without observing the provisions of these regulations, the Federal agency taking the action should consult with the Council about alternative arrangements. Agencies and the [CEQ] will limit such arrangements to actions neces-

sary to control the immediate impacts of the emergency. Other actions remain subject to NEPA review.²⁷³

According to one commentator, as of 2010, the CEQ had granted alternative compliance arrangements under this emergency rule on 41 occasions.²⁷⁴ Importantly, the emergency rule only applies in those circumstances in which an EIS would otherwise be required; for actions that are subject to categorical exclusions or that do not have significant environmental impacts, other provisions may be applicable.

CEQ issued revised guidance on the rule in response to the BP oil spill in the Gulf of Mexico.²⁷⁵ The guidance emphasizes that “alternative arrangements are limited to ‘the actions necessary to control the immediate impacts of the emergency’ and that such arrangements establish an alternative way to comply to NEPA, not a waiver of the NEPA’s basic requirements.”²⁷⁶ The arrangements are to be made in consultation with CEQ, which will provide documentation supporting the alternative arrangements. The requirement to consult with CEQ may be delayed, however, when immediate actions “to secure the lives and safety of citizens or to protect valuable resources” are necessary.²⁷⁷

Neither the rule nor CEQ’s guidance defines what constitutes an “emergency.” Nor has the scope of the emergency rule been definitively addressed by the courts. In *Natural Resources Defense Council v. Winter*,²⁷⁸ the district court rejected a CEQ determination that the rule could be applied to support alternative NEPA arrangements for “the Navy’s need to continue its long-planned, routine sonar training exercises unmitigated by” the requirements of a previous judicial order.²⁷⁹ Instead, the court held that the emergency rule only encompasses “significant, unanticipated occurrences, such as natural disasters.”²⁸⁰ Because the Navy’s purported emergency

²⁷³ 40 C.F.R. § 1506.11.

²⁷⁴ See Jomar Maldonado, *Navigating the Emergency Provisions of Federal Environmental Planning Requirements*, 12 ENVIRONMENTAL PRACTICE 237, 238 (2010).

²⁷⁵ Memorandum for the Heads of Federal Departments and Agencies from Nancy H. Sutley, Chair, Council on Environmental Quality (May 12, 2010).

²⁷⁶ *Id.* at 2.

²⁷⁷ *Id.* at Attachment 1, at 1.

²⁷⁸ 527 F. Supp. 2d 1216 (C.D. Cal. 2008), *aff’d* 581 F.3d 658 (9th Cir. 2008).

²⁷⁹ *Id.* at 1227.

²⁸⁰ *Id.*

²⁶⁸ 23 U.S.C. § 125(a)(1)-(2).

²⁶⁹ 23 C.F.R. § 668.103.

²⁷⁰ 78 Fed. Reg. at 11596.

²⁷¹ 23 C.F.R. § 771.117(b).

²⁷² *Id.* § 771.117(b)(1)-(4).

was “simply a creature of its own making, i.e., its failure to prepare adequate environmental documentation in a timely fashion,” the emergency rule was deemed inapplicable.²⁸¹ This decision was, however, reversed by the Supreme Court on unrelated grounds, making its precedential effect somewhat tenuous.

In other decisions, the courts have sustained alternative arrangements under the emergency rule for flights of military aircraft contrary to the terms of an operative EIS, because the modified flight schedule was deemed essential to supply military equipment and troops for ongoing military operations;²⁸² and in circumstances where agency action was needed to avoid an imminent crisis beyond the agencies’ control.²⁸³

2. Exemptions Applicable to Specific Environmental Statutes

a. The Clean Air Act.—EPA has promulgated a regulation that exempts a number of emergency-related transportation projects from the conformity requirements of Section 176 of the Clean Air Act. The exemption allows certain transportation projects to proceed even in circumstances where there is no conforming transportation plan or transportation improvement program.²⁸⁴ The exemption does not apply to projects if the relevant metropolitan planning organization (MPO) in consultation with other agencies, EPA and FHWA, concur that the project may have adverse emission impacts, regardless of the reason for such impacts. Projects that are exempt from conformity determination must not interfere with transportation control measures adopted by the states and included in the relevant state implementation plan.²⁸⁵

In addition, as noted earlier, the Clean Air Act does include a grant of emergency powers to EPA.²⁸⁶ The most likely intent of this authority is to provide EPA with authority to respond to “evidence that a pollution source or combination of sources...is presenting an imminent and substan-

tial endangerment to health or welfare, or the environment” by issuing abatement orders, not to waive regulatory requirements in an emergency context.²⁸⁷ Nonetheless, the text of the provision authorizes EPA to “issue such orders as may be necessary to protect public health or welfare or the environment,” which might support a waiver of regulatory requirements that might otherwise impede or delay emergency response actions.²⁸⁸

EPA has express statutory authority to waive a variety of regulatory requirements in emergencies or where national security interests require such waivers.²⁸⁹ Most of these waiver authorities will not directly impact transportation projects, but could assist in related recovery/reconstruction efforts. The authorities include:

- 42 U.S.C. § 7410(f)—permits suspension of state implementation plan requirements for particular fuel burning stationary sources if the President determines that “national or regional energy emergency exists”
- 42 U.S.C. § 7412(i)(4)—exemptions available for compliance with control requirements for air toxics if the technology to implement the requirements is unavailable and “that it is in the national security interests of the United States” to provide the exemption.
- 42 U.S.C. § 7545(c)(4)(C)—temporary waiver of fuel or additive requirements if EPA determines that “extreme and unusual fuel and fuel additive supply circumstances are the result of a natural disaster, an act of God, a pipeline or refinery equipment failure, or another event that could not reasonably have been foreseen or prevented and not the lack of prudent planning on the part of suppliers of the fuel or fuel additive....”
- 42 U.S.C. § 7418(b)—authorizes exemptions from regulatory requirements for “any emission source of any department, agency, or instrumentality in the executive branch if [the president] determines it to be in the paramount interest of the United States.”

EPA also waives some regulatory requirements governing the demolition of asbestos-containing materials when “the facility is being demolished under an order of a State or local government

²⁸¹ *Id.*

²⁸² *Valley Citizens for a Safe Environment v. West*, Civ. A. No. 91-300077-F, 1991 WL 330963 (D. Mass. May 30, 1991).

²⁸³ *See Crosby v. Young*, 512 F. Supp. 1363 (E.D. Mich. 1981); *National Audubon Soc’y v. Hester*, 801 FR. 12d 405, 408 n.3 (D.C. Cir. 1986).

²⁸⁴ 40 C.F.R. § 93.126. The exemptions can be found in Table 2-Exempt Projects.

²⁸⁵ *Id.* § 93.126.

²⁸⁶ 42 U.S.C. § 7603.

²⁸⁷ *Id.*

²⁸⁸ *Id.*

²⁸⁹ For an overview, see Michael B. Gerard, *Emergency Exemptions from Environmental Laws After Disasters*, 20 NAT. RESOURCES & ENV’T. 10 (Spring 2006), at 13.

agency” if “the facility is structurally unsound and in danger of imminent collapse.”²⁹⁰

b. The Clean Water Act.—The Clean Water Act (CWA) and EPA’s implementing regulations include a number of exemptions from regulatory requirements. For example, the CWA authorizes the president to take action to ensure “immediate and effective removal” of discharges of hazardous substances from onshore facilities when necessary to protect public health or welfare or the environment.²⁹¹ EPA invoked this provision in the wake of Hurricane Katrina to authorize the pumping of highly contaminated floodwaters from the city of New Orleans into Lake Pontchartrain.²⁹² In the absence of such authorization, the pumping would violate Section 301 of the CWA.

EPA regulations include some exceptions to compliance with otherwise applicable regulatory requirements under the Section 402 permitting program in emergency situations. For example, EPA’s standard permit authorizes discharges of pollutants in excess of permit limitations in the event of an “upset.” An upset is defined as an “exceptional incident in which there is an unintentional and temporary noncompliance...because of factors beyond the reasonable control of the permittee.”²⁹³ In addition, discharges in compliance with orders issued by appropriate authority under the National Contingency Plan—such as dewatering operations—may be exempt from the Section 402 permitting program.²⁹⁴

EPA’s general permit for stormwater discharges associated with construction activities provides for immediate authorization for discharges without the filing of a notice of intent if the earth-disturbing activities are in response to a “public emergency (e.g., natural disaster, widespread disruption in essential public services), and the related work requires immediate authorization to avoid imminent endangerment to human health, public safety, or the environment, or to reestablish essential public services.”²⁹⁵ The authorization requires that a complete and accurate notice of intent be submitted within 30 days of commencing earth-disturbing activities.

²⁹⁰ 40 C.F.R. § 61.145(a)(3).

²⁹¹ 33 U.S.C. § 1321(c).

²⁹² See Gerard, *supra* note 289, at 12.

²⁹³ 40 C.F.R. § 122.41(n)(1).

²⁹⁴ *Id.* § 122.3(d).

²⁹⁵ *National Pollutant Discharge Elimination System General Permit for Discharges from Construction Activity*, § 1.2.1, available at http://www.epa.gov/npdes/pubs/cgp2012_finalpermit.pdf.

Section 404 exempts from its permit requirement discharges of dredged or fill material “for the purpose of maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, and bridge abutments or approaches, and transportation structures.”²⁹⁶ Corps’ regulations provide that “maintenance” does not include “any modification that changes the character, scope, or size of the original fill design.”²⁹⁷ The exemption is available only for “[e]mergency reconstruction...within a reasonable period of time after damage occurs.”²⁹⁸ The maintenance must be for “currently serviceable structures,” which one court has held to mean structures that are currently “performing [their] function to some degree” and “do[] not require reconstruction.”²⁹⁹ The exemption is unavailable, however, if it involves a discharge “incidental to any activity having as its purpose bringing an area of the navigable waters into a use to which it was not previously subject, where the flow or circulation of navigable waters be reduced.”³⁰⁰

The Corps’ general regulations also authorize the issuance of emergency permits, which include permits required by Section 404 of the CWA.³⁰¹ These “temporary emergency” permits for discharges of dredged or fill material may be issued “if unacceptable harm to life or severe loss of physical property is likely to occur before a permit could be issued or modified under procedures normally required.” The permit’s duration is limited to the time required to complete the emergency action and includes a condition requiring “appropriate restoration of the site.”³⁰²

c. The Resource Conservation and Recovery Act.—RCRA and EPA regulations implementing RCRA include several provisions that may be useful in the emergency context, particularly where an agency must handle and dispose of hazardous wastes that pose threats to public health or safety. Under RCRA, persons engaged in the treatment, storage or disposal of hazardous wastes generally are required to obtain permits

²⁹⁶ 33 C.F.R. § 1344(f)(1)(B).

²⁹⁷ 33 C.F.R. § 323.4(a)(2).

²⁹⁸ *Id.*

²⁹⁹ *Swinomish Indian Tribal Community v. Skagit County Dike Dist. No. 22*, 618 F. Supp. 2d 1262, 1268 (W.D. Wash. 2008).

³⁰⁰ 33 C.F.R. at 1344(f)(2).

³⁰¹ 33 C.F.R. § 233.22.

³⁰² *Id.*

from EPA or an authorized state authority, and to meet stringent requirements. RCRA, however, authorizes the president to “exempt any solid waste management facility of any department, agency, or instrumentality in the executive branch from [otherwise applicable regulatory requirements] if he determines it to be in the paramount interest of the United States to do so.”³⁰³

In addition, EPA may issue temporary emergency permits under RCRA when there is an “imminent and substantial endangerment to human health or the environment.” The temporary permit may require some protective measures, but need not include the strict requirements ordinarily applicable to treatment, storage, or disposal facilities.³⁰⁴ Emergency permits may be issued to a “non-permitted facility to allow treatment, storage, or disposal of hazardous waste,” or to a “permitted facility to allow treatment, storage, or disposal of a hazardous waste not covered by an effective permit.”³⁰⁵ EPA regulations also provide an exclusion from regulations applicable to treatment, storage or disposal facilities for “a person engaged in treatment or containment activities during immediate response to...[a] discharge of hazardous waste; [a]n imminent and substantial threat of a discharge of hazardous waste; [a] discharge of a material which, when discharged, becomes a hazardous waste;” or “[a]n immediate threat to human health, public safety, property, or the environment, from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist.”³⁰⁶ The exemption lasts only for the duration of the “immediate response.”³⁰⁷

d. Endangered Species Act.—Section 7(p) of the ESA authorizes the president to grant exemptions from the requirement under Section 7(a)(2) that agencies insure that their actions do not jeopardize listed species or adversely affect the species’ critical habitats. The exemption is limited to areas that have been declared to be major disaster areas under the Stafford Act.³⁰⁸ The scope of the exemption may include “any project for the repair or replacement of a public facility substantially as it existed prior to the disaster...and which the President determines (1) is necessary to prevent

the recurrence of such a natural disaster and to reduce the potential loss of human life, and (2) to involve an emergency situation which does not allow the ordinary procedures.”³⁰⁹ This limited exemption authority proved useful in the wake of Hurricane Katrina when the Department of the Interior and FEMA established a “practical protocol that exempted the repair or replacement of facilities under FEMA’s Public Assistance Program from section 7 consultation.”³¹⁰

A more broadly applicable emergency provision is included in Fish & Wildlife/NOAA-Fisheries joint regulations implementing Section 7 of the ESA. That provision states:

(a) Where emergency circumstances mandate the need to consult in an expedited manner, consultation may be conducted informally through alternative procedures that the Director determines to be consistent with the requirements of sections 7(a)–(d) of the Act. This provision applies to situations involving acts of God, disasters, casualties, national defense or security emergencies, etc.

(b) Formal consultation shall be initiated as soon as practicable after the emergency is under control. The Federal agency shall submit information on the nature of the emergency action(s), the justification for the expedited consultation, and the impacts to endangered or threatened species and their habitats. The Service will evaluate such information and issue a biological opinion including the information and recommendations given during the emergency consultation.³¹¹

Like CEQ’s emergency regulation for NEPA, the emergency consultation procedure is not an exemption from the requirements of the ESA, but rather provides an alternative means of compliance. The Fish and Wildlife Consultation Manual indicates that most emergency consultations are conducted informally and initially by means of a telephone communications, followed by written correspondence. The role of Fish & Wildlife in this process is to offer recommendations that minimize the effects of an emergency response on listed species or their critical habitats.³¹² The handbook advises service personnel to not “stand in the way of response efforts.”³¹³ Moreover, the handbook provides that, “[u]nder no circumstances should a Services representative obstruct an emergency

³⁰³ 42 U.S.C. § 6961(a).

³⁰⁴ 40 C.F.R. § 270.61(a) (2013).

³⁰⁵ *Id.*

³⁰⁶ 40 C.F.R. 264.1(g)(8)(i).

³⁰⁷ *Id.* § 264.1(g)(8)(iii).

³⁰⁸ 16 U.S.C. § 1536(p).

³⁰⁹ *Id.*

³¹⁰ Maldonado, *supra* note 274, at 239.

³¹¹ 50 C.F.R. § 402.05.

³¹² U.S. Fish and Wildlife Service and National Marine Fisheries Service, *Endangered Species Consultation Handbook: Procedures for Conducting Consultation and Conference Activities Under Section 7 of the Endangered Species Act*, at 8-1 (1998).

³¹³ *Id.*

response decision made by the action agency where human life is at stake.³¹⁴

If listed species or critical habitat has been adversely affected by response actions, the action agency must, “as soon as practicable after the emergency is under control” initiate formal consultation.³¹⁵ Thus, “emergency consultation...is not a substitute for required consultation under [Section 7].”³¹⁶ In some circumstances, the resulting biological opinion may not provide reasonable and prudent alternatives to avoid jeopardy or critical habitat impacts, simply because such alternatives may no longer be available. Fish & Wildlife does consider, however, whether “some further action can restore or enhance the species below the jeopardy threshold,”³¹⁷ and may include such measures as reasonable and prudent alternatives in the biological opinion. Thus, in some case, the emergency consultation procedures may result in a de facto exemption from the requirements of Section 7(a)(2).

The handbook describes an “emergency” as a “situation involving an act of God, disasters, casualties, national defense or security emergencies, etc., and includes response activities that must be taken to prevent imminent loss of human life or property. Predictable events...do not qualify as emergencies...unless there is a significant unexpected human health risk.”³¹⁸ Limited judicial authority concurs with this understanding of when the emergency consultation procedures may be applicable.³¹⁹ It is the action agency’s responsibility to determine whether an emergency is present, and Fish & Wildlife may rely on the action agency’s representations in concurring or disagreeing with that determination.³²⁰

e. Section 106 of the National Historic Preservation Act.—The Advisory Council has promulgated an emergency regulation that exempts from Section 106 requirements: “immediate rescue and

salvage operations conducted to preserve life or property.”³²¹ Other response operations associated with a disaster or emergency declared by the president, a tribal government, or the governor of a state, may be subject to procedures that serve as alternatives to ordinary Section 106 processes. The regulation encourages agencies to develop such alternative procedures in consultation with SHPOs and the Council and, if approved by the Council, may be used in lieu of the standard procedures.³²² Neither FHWA nor FEMA has developed such procedures.

Alternatively, the regulation provides that an agency may comply with Section 106 by either following a programmatic agreement that contains specific provisions governing historic properties in emergency situations or notifying and soliciting comment from the Council, the SHPO, and tribal organizations that may view affected properties as religiously or culturally significant.³²³ FEMA and FHWA have entered into a number of programmatic agreements, though not all of the FHWA agreements include emergency provisions.³²⁴ The alternatives provided by the Council’s regulation are fairly limited in scope. In addition to being limited to declared emergencies, they are available only for undertakings that are implemented within 30 days of a disaster declaration, although requests for extensions may be made to the Council.³²⁵

III. MODEL SURVEYS OF GOVERNMENTS AT THE VARIOUS LEVELS FOR ACTIONS AND PROCESSES

A. Background on Agencies in the Environmental Compliance Process

Environmental review processes usually involve three categories of agencies: applicant, lead, and cooperating agencies. This is true of both the planning requirements of the National Environ-

³¹⁴ *Id.*

³¹⁵ *Id.* at 8-4.

³¹⁶ *Forest Service Employees for Environmental Ethics v. U.S. Forest Service*, 397 F. Supp. 2d 1241, 1256 (D. Mont. 2005).

³¹⁷ *Id.* at 8-1.

³¹⁸ *Id.* at 8-1.

³¹⁹ See *Friends of Merrymeeting Bay v. U.S. Dep’t of Commerce*, 810 F. Supp. 2d 320, 328 (D. Me. 2011); *Washington Toxics Coalition v. U.S. Dep’t of Interior*, 457 F. Supp. 2d 1158, 1195 (W.D. Wash. 2006); *Forest Service Employees*, 397 F. Supp. 2d at 1257.

³²⁰ See *Friends of Merrymeeting Bay*, 819 F. Supp. 2d at 328–29.

³²¹ 36 C.F.R. § 800.12(d).

³²² *Id.* § 800.12(a).

³²³ *Id.* § 800.12(b).

³²⁴ FHWA’s programmatic agreements may be viewed in the AASHTO library, see Fed. Highway Admin., *Resource Center Environment Team*, http://www.fhwa.dot.gov/resourcecenter/teams/environment/resource_dir.cfm (last visited Feb. 11, 2013). It is reported that FEMA has entered into more than 30 statewide programmatic agreements that include emergency provisions. See Maldonado, *supra* note 274, at 239.

³²⁵ 36 C.F.R. § 800.12(d).

mental Policy Act (NEPA)³²⁶ and of the permitting and enforcement powers provided by various statutes. Generally speaking, an applicant agency is the party that must comply with environmental processes while planning, designing, or constructing. The lead or coordinating agency is responsible for coordinating the environmental review process.³²⁷ A third category of agencies is the cooperating agency, or an agency with jurisdiction by law or which has expertise in a particular environmental area.³²⁸ These categories are not mutually exclusive; a single agency may fulfill multiple roles.

For agency representation, the approach was to conduct a detailed analysis of applicant and lead agencies. This detailed analysis was complemented with a general analysis of all agencies, including cooperating agencies. This approach ensured that cooperating agency experience was captured via the lead and applicant agencies, without devoting excessive effort to any particular cooperating agency or statute. The detailed analysis involved in-person interviews, telephone interviews, email correspondence, and the review of documents. The general analysis was based on a national Web survey. Table 1 shows the 33 agency staff members that assisted with this project via interviews, emails, or as document authors. This table also serves to acknowledge the contributions provided by these individuals. Additional staff members also provided documentation and other information. Table 1 shows a mixture of lead and applicant agencies at the federal and state levels. Instead of interviewing local agencies directly, experience at the local level was captured by the examination of state agencies that assisted with the disaster applications of local agencies. The staff members represented all regions of the United States. Some staff members had experience with multiple agencies or states. For example, Jomar Maldonado was previously with FEMA, and Darlene Weaver was previously with Arizona DOT.

³²⁶ National Environmental Policy Act, 42 U.S.C. §§ 4321–4347 (2012).

³²⁷ 40 C.F.R. § 1501.5 (2014).

³²⁸ 40 C.F.R. § 1501.6 (2014).

Table 1. Description of agency staff.

Agency	Role	Level	Contacts
FHWA	Lead	Fed.	<ul style="list-style-type: none"> • Evtl. Tech. Serv., Manager, Lamar Smith • Evtl. Tech. Serv., Ecology, William Van Peeters • Evtl. Tech. Serv., Lead Specialist, Rodney Vaughn • Evtl. Tech. Serv., 4(f), Section 106, Daniel Johnson • Evtl. Tech. Serv., Environmental Program • Evtl. Tech. Serv., Ecologist, Kevin Moody • Office of Chief Counsel, Jomar Maldonado • Pennsylvania Division, Keith Lynch • Florida Division, Cathy Kendall, Nahir De Tizio • North Dakota Division, Mark Schrader • New York Division, Melissa Toni • Former Division Adm'r in N.J., Ga., Del., Charles Nemmers
FEMA	Lead	Fed.	<ul style="list-style-type: none"> • Evtl. Planning Office, Director, Angela Gladwell • Region X (AK, ID, OR, WA) Evtl. Officer, Mark Eberlein • Region I (CT, ME, MA, NH, RI, VT) Dep. Evtl. Officer, Lydia Kachadoorian • Vt. Joint Field Office, Evtl. Advisor, Peter Thomas • Vt. Joint Field Office, Historic Preservation, Sharla Azizi
Mo. SEMA	Lead	State	<ul style="list-style-type: none"> • Floodplain Management Officer, Dale Schmutzler
Mo. DOT	App.	State	<ul style="list-style-type: none"> • Evtl. & Historic Preservation Manager, Gayle Unruh • Archeology Field Director, Mike Meinkoth • Wetland Coordinator, Buck Brooks
Mo. DNR	Res.	State	<ul style="list-style-type: none"> • Emergency Response Chief, Brian Allen
Minn. DOT	App.	State	<ul style="list-style-type: none"> • Director and Chief Evtl. Officer, Lynn Clarkowski • Evtl. Documentation, Jason Alcott • Historian/Archaeologist, Cultural, Kristen Zschomler • Dep't. of Natural Resources Liaison, Peter Leete
Or. DOT	App.	State	<ul style="list-style-type: none"> • NEPA Program Manager, Darlene Weaver
Tex. DOT	App.	State	<ul style="list-style-type: none"> • Director of Evtl. Affairs, Carlos Swonke • Evtl. Affairs Division, Technical Serv., Jim Barta
Caltrans	App.	State	<ul style="list-style-type: none"> • Evtl. Analysis, Districts 4 and 7, Jeremy Ketchum
La. DOTD	App.	State	<ul style="list-style-type: none"> • Evtl. Eng. Administrator, Noel Ardoin
Mo. DOT	App.	Local	<ul style="list-style-type: none"> • Local Assistance, Daniel Salisbury
The Corps	Coop.	Fed.	<ul style="list-style-type: none"> • St. Louis Regulatory Branch, Mo. Section, Jennifer Brown

B. Lead/Coordinating Agencies

Title II of NEPA established the Council on Environmental Quality (CEQ).³²⁹ CEQ creates regulations and procedures for implementing NEPA, and provides guidance for federal agency decisionmaking.³³⁰ FHWA, the Federal Transit Administration, the Federal Aviation Administration, and the Federal Railroad Administration are agencies that fall under the United States Department of Transportation (USDOT) and follow similar rules for environmental analysis and review.³³¹ For conciseness, this digest uses FHWA as the primary example to illustrate USDOT agency practices. In terms of environmental compliance for most transportation facilities, FHWA (or its sister agencies) and FEMA are the two primary lead agencies involved in emergency recovery. The type of transportation facility affected determines which agency coordinates the environmental review and the distribution of emergency relief funds. FHWA administers the Emergency Relief (ER) program, which applies only to federal-aid highways.³³² Federal-aid highways are defined as highways on the federal-aid highway system, and all other public roads not classified as local roads or rural minor collectors. The federal-aid highway system is comprised of the National Highway System and the Dwight D. Eisenhower National System of Interstate and Defense Highways (the “Interstate System”).³³³ Though this legal digest does not explicitly cover facilities on federal lands that are not federal-aid highways, environmental compliance processes that are similar to those that apply to federal-aid highways also apply to such facilities. The FHWA ER Manual documents the federal policies and proce-

dures for state and local governments.³³⁴ FEMA coordinates the Public Assistance (PA) program for transportation facilities that are neither federal-aid highways nor roads on federal lands.³³⁵ The Stafford Act authorizes the president to provide major disaster and emergency assistance through FEMA, including assistance for infrastructure recovery.³³⁶ An emergency declaration is used to lessen or avert the threat of a major disaster, while a major disaster declaration results in broader authority, including long-term recovery.³³⁷ Though the two lead agencies of FHWA and FEMA focus on different portions of the transportation network, they are expected to support each other in emergency response.³³⁸

ER and PA are emphasized in this legal digest, since they are the two major programs that exist for infrastructure recovery and exemplify federal environmental compliance processes. Other federal and state programs exist that provide disaster assistance and invoke environmental review. Such programs might not involve the Department of Homeland Security (DHS) or a presidential declaration of a major disaster or emergency.³³⁹ In addition to federal assistance, states can also utilize the Emergency Management Assistance Compact (EMAC) or mutual aid between states.³⁴⁰ Since environmental compliance issues with EMAC resemble those of ER and PA, they are not discussed separately here.

1. FHWA

The ER program is authorized under 23 U.S.C. §125 to repair or reconstruct highways, roads, and trails that have suffered serious damage due to wide area disasters or external catastrophic failures. The ER Manual explains that ER funds supplement state resources to pay for unusually heavy expenses resulting from extraordinary conditions.³⁴¹ Such failures are required to have been produced by external causes.³⁴² Extraordinary conditions differ from recurring or seasonal natu-

³²⁹ 42 U.S.C. § 4342 (2000).

³³⁰ 42 U.S.C. § 4342-4344 (2000).

³³¹ In fact, FTA’s regulations for environmental impacts procedures in 49 C.F.R. § 622 cross reference 23 C.F.R. § 771, which is also followed by FHWA. FRA’s procedures are listed in Fed. Reg. 64, 101 (May 26, 1999), which mentions an effort to develop joint environmental regulations covering the four DOT administrations of FHWA, FTA, FRA, and USCS. FAA’s environmental procedures are listed in Order 5050.4B (April 28, 2006). In addition, the Surface Transportation Board, which has jurisdiction over rail transactions and certain trucking and freight matters, lists its environmental procedures in 49 C.F.R. § 1105 (2013).

³³² Fed. Highway Admin., *Emergency Relief Manual (Federal-Aid Highways)* 1, Office of Program Admin. (2013).

³³³ 23 C.F.R. 470.103(4) (2011).

³³⁴ Fed. Highway Admin., *supra* note 332.

³³⁵ *Id.*

³³⁶ 42 U.S.C. § 5121–5207 (2000).

³³⁷ 42 U.S.C. § 5122 (2000).

³³⁸ Keith Lynch, *Introduction: The EQ “Disaster Issue,”* THE ENVIRONMENTAL QUARTERLY, October 11, 2011, at 3.

³³⁹ Homeland Security, *National Response Framework* 24, 40 (2008).

³⁴⁰ Pub. L. No. 104-321 (1996).

³⁴¹ Fed. Highway Admin., *supra* note 332, at 1.

³⁴² *Id.*

ral events.³⁴³ FHWA determined that unusually heavy expenses are those that exceed a repair expense threshold of \$700,000.³⁴⁴ The maximum assistance amount is \$100 million per catastrophic event per state,³⁴⁵ although this threshold is sometimes raised under extraordinary circumstances.³⁴⁶ Emergency relief is divided into the categories of emergency and permanent repairs.³⁴⁷ Emergency or immediate repairs restore essential traffic, minimize damage, and protect facilities, while permanent repairs return the facility to pre-disaster conditions.³⁴⁸ For the first 180 days after the disaster, the federal pro rata share is normally 100 percent for emergency repairs.³⁴⁹ For permanent restoration work, the federal share is typically 90 percent for Interstate highways and 80 percent for other highways.³⁵⁰

The emergency recovery project decision undertaken under ER is made through the NEPA development process.³⁵¹ MAP-21 amended 23 C.F.R. 777(c)(9) to categorically exclude recovery projects that are kept to the existing right-of-way and are commenced within two years.³⁵² These projects must substantially conform to preexisting design, function, and location.³⁵³ Betterment projects could receive ER funding, but may not meet the requirements of categorical exclusion.³⁵⁴ For such projects, advanced coordination with resource agencies is encouraged, especially in the case of sensitive or high-value resources.³⁵⁵ For projects that do not fit under CE, an environmental assessment (EA) or an environmental impact statement (EIS) is prepared by the applicant agency.³⁵⁶ FHWA reviews environmental documents and issues decisions in the form of a finding of no significant impact (FONSI) or a requirement for an EIS in the case of EA, or, a record of decision

(ROD) in the case of EIS.³⁵⁷ Throughout the NEPA process, FHWA may work with the applicant agency to develop a consultation plan with participating agencies, create an environmental review schedule, and determine the methodology and analysis detail.³⁵⁸

FHWA takes on multiple roles in the environmental compliance process for emergencies. FHWA has the responsibility of administering ER funds and determining funding eligibility, including environmental compliance as a prerequisite for funding.³⁵⁹ Thus, FHWA has an oversight role. FHWA also supports states and other agencies with applications, recovery project design, and reconstruction by providing technical expertise, one aspect of which being environmental compliance.³⁶⁰ Therefore, FHWA also adopts the role of providing resources and facilitation. One FHWA staff member characterized one of FHWA's roles as "interpreter."³⁶¹ Because agencies use different terminology, FHWA can help to facilitate inter-agency communication, such as between the applicant agency and environmental resource agencies.³⁶² Since local FHWA divisions have built long-term relationships with their state DOT counterparts, they have a better starting point for communicating environmental concerns related to recovery projects than do resource agencies.³⁶³ In emergencies, FHWA is also tasked with the role of coordinating between the transportation industry, state and local governments, other federal agencies, or even international organizations.³⁶⁴

2. FEMA

The Stafford Act supplies the statutory authority for FEMA to provide disaster and emergency

³⁴³ *Id.* at 17.

³⁴⁴ *Id.* at 2.

³⁴⁵ 23 U.S.C. § 125(d)(1) (2013).

³⁴⁶ *E.g.*, Press release, Colo. Office of Emergency Mgmt., Gov. Hickenlooper Announces Flood Recovery Progress Oct. 23, 2013.

³⁴⁷ Fed. Highway Admin., *supra* note 332, at 3.

³⁴⁸ *Id.* at 3.

³⁴⁹ *Id.* at 46.

³⁵⁰ *Id.* at 47.

³⁵¹ *Id.* at 58–59.

³⁵² *Id.* at 58.

³⁵³ *Id.*

³⁵⁴ *Id.* at 58–59.

³⁵⁵ *Id.* at 58.

³⁵⁶ 23 C.F.R. §§ 771.119, 771.123-125 (2014).

³⁵⁷ 23 C.F.R. §§ 771.119, 771.123-125 (2014).

³⁵⁸ Fed. Highway Admin., *Environmental Review Process Checklist*, http://environment.fhwa.dot.gov/strmlng/sec602_checklist.asp (last visited Jan. 30, 2014).

³⁵⁹ Fed. Highway Admin., *supra* note 332, at 58–59.

³⁶⁰ U.S. Dep't of Transp., DOT 1900.9. *Department of Transportation Emergency Management Policies and Programs* 20 (2000).

³⁶¹ Telephone Interview with Daniel Johnson, Env'tl. Program Specialist, Fed. Highway Admin. (Nov. 25, 2013).

³⁶² *Id.*

³⁶³ *Id.*

³⁶⁴ U.S. Dep't of Transp., *Department of Transportation Emergency Management Policies and Programs DOT1900.9*, at 7, 9 (2000).

assistance and coordinate federal response.³⁶⁵ FEMA's core missions include preparedness, protection, response, recovery, and mitigation.³⁶⁶ FEMA's assistance is separated into the three categories of Individual Assistance, Public Assistance (PA), and Hazard Mitigation Assistance.³⁶⁷ The current legal digest focuses on public transportation infrastructure, which mainly involves the PA program. In distributing federal funds through PA, FEMA is charged with ensuring environmental compliance prior to funding.³⁶⁸

In order for FEMA to assist in local emergency response, the governor of the affected state or territory must make a request through the regional FEMA office for a presidential major disaster declaration.³⁶⁹ FEMA analyzes the declaration request and verifies that the severity and magnitude of the necessary response is beyond a state's resources.³⁷⁰ Similar to FHWA, FEMA uses the NEPA review process to address many other environmental laws and regulations.³⁷¹ However, even when some actions have been excluded from NEPA review, there may still be potential environmental impacts that require additional review for compliance with other environmental laws or regulations.³⁷² FEMA can utilize statutory exclusions (STATEX) to exempt certain activities from NEPA review.³⁷³ A notable excluded activity is a project that substantially limits the repair, restoration, and replacement of facilities to their pre-disaster footprint, function, and size.³⁷⁴ In following the normal NEPA process, FEMA can utilize CEAs, which involves types of actions that result in little or no individual and cumulative environmental impact.³⁷⁵ FEMA compiled a list of such actions in 44 C.F.R. § 10.8(d) based on its experi-

ence. Examples of such actions include minor improvements or minor hazard mitigation measures at existing facilities.³⁷⁶ FEMA assists with the EA process and the development of environmental impact statements, if needed.³⁷⁷ It reviews all documents and prepares necessary findings, such as findings of no significant impact in the case of an EA, or a record of decision for an environmental impact statement.³⁷⁸ FEMA maintains the NEPA administrative record, including the final decisions.³⁷⁹ FEMA regulations also allow for the regional administrator to take emergency actions with significant environmental impact by notifying the environmental officer for consultation with CEQ.³⁸⁰

An example of FEMA's role in assisting with emergency environmental compliance is the informal interagency cooperative agreement developed in FEMA Region I following Hurricane Irene in 2011.³⁸¹ FEMA Region I covers the New England states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.³⁸² FEMA's Environmental and Historic Preservation Section of the Vermont Joint Field Office worked with the Vermont Agency of Transportation's Historic and Archaeological Resources Unit and the State Historic Preservation Office to craft an informal agreement to facilitate the repair of critical historic bridges.³⁸³ This agreement covered the repair of 189 bridges, 18 of which were listed on the National Register of Historic Places.³⁸⁴ FEMA used its lead agency role to facilitate collaboration among agencies.³⁸⁵

FEMA's Region I also assisted with the development of a formal programmatic agreement that covered emergency undertakings that could affect

³⁶⁵ 42 U.S.C. § 5121-5206 (1988).

³⁶⁶ Fed. Emergency Mgmt. Agency, *Publication 1*, at 17 (2010).

³⁶⁷ Fed. Emergency Mgmt. Agency, *A Guide to the Disaster Declaration Process and Federal Disaster Assistance 2* (2011).

³⁶⁸ Fed. Emergency Mgmt. Agency, *Public Assistance Guide 127* (2007).

³⁶⁹ 42 U.S.C. § 5170(a) (1988).

³⁷⁰ Fed. Emergency Mgmt. Agency, *The Federal Emergency Management Agency* 36 (2010); Fed. Emergency Mgmt. Agency, *supra* note 367, at 2.

³⁷¹ Fed. Emergency Mgmt. Agency, *supra* note 368, at 128.

³⁷² *Id.* at 129.

³⁷³ 42 U.S.C. § 5159 (2007).

³⁷⁴ 42 U.S.C. § 5172 (2007).

³⁷⁵ 44 C.F.R. § 10.8(d) (2014).

³⁷⁶ *Id.*

³⁷⁷ 44 C.F.R. § 10.5 (2014).

³⁷⁸ *Id.*

³⁷⁹ *Id.*

³⁸⁰ 44 C.F.R. § 10.13 (2014).

³⁸¹ Email from Lydia Kachadoorian, Deputy Reg'l Env. Officer Fed. Emergency Mgmt. Agency Region I, to Carlos Sun, Associate Professor, University of Missouri (March 27, 2013, 9:53 CST) (on file with author); Peter Thomas et al., *Jousting with Bridges 6* (Fed. Emergency Mgmt. Agency 2013).

³⁸² Fed. Emergency Mgmt. Agency, *Region I: CT, ME, MA, NH, RI, VT*, <http://www.fema.gov/region-i-ct-me-ma-nh-ri-vt> (last visited Feb. 3, 2014).

³⁸³ Kachadoorian, *supra* note 381.

³⁸⁴ Thomas et al., *supra* note 381, at 32.

³⁸⁵ Kachadoorian, *supra* note 381.

historic properties.³⁸⁶ The parties to this agreement include FEMA, State Historical Preservation Officer (SHPO), Vermont Emergency Management, and the Advisory Council on Historic Preservation.³⁸⁷ Although invited, the Stockbridge-Munsee Tribe did not wish to be a signatory to the agreement, and must therefore be consulted on affected projects.³⁸⁸ This agreement allows FEMA to act on the collective behalf of agencies to fulfill all Section 106 responsibilities.³⁸⁹ The agreement also detailed timeframes for reviews under different scenarios, with the result that FEMA could assume another agency's concurrence if the agreed upon time period had elapsed.³⁹⁰

a. SEMA.—The State Emergency Management Agency (SEMA) is the state counterpart to FEMA. SEMA will not be described in detail as SEMA is similar to FEMA in many respects in terms of its role in coordinating environmental review. Missouri SEMA will be used to illustrate SEMA's role in environmental compliance. Though independent, Missouri SEMA interacts the most with other SEMAs in FEMA Region VII which includes the states of Nebraska, Iowa, Kansas, and Missouri.³⁹¹ In Missouri, SEMA is situated within the department of public safety and is tasked with coordinating response, recovery, planning, and mitigation for emergencies as well as assisting with the National Flood Insurance Program.³⁹² Thus SEMA oversees environmental compliance when SEMA funds are used for recovery. SEMA's permitting authority is based on a state executive order.³⁹³ Even though waivers or exceptions are not often issued, permitting can be expedited for emergencies.³⁹⁴

³⁸⁶ Programmatic Agreement Among the Fed. Emergency Mgmt. Agency, Vt. State Historic Preservation Officer, Vt. Emergency Mgmt. Division of the Dep't of Public Safety, and the Advisory Council on Historic Preservation 1 (April 19, 2011) [hereinafter Vt. Section 106 PA].

³⁸⁷ *Id.*

³⁸⁸ *Id.* at 2.

³⁸⁹ *Id.* at 3.

³⁹⁰ *Id.* at 6–7.

³⁹¹ Telephone interview with Dale Schmutzler, Floodplain Mgmt. Officer, State Emergency Management Agency (Feb. 12, 2014).

³⁹² MO. REV. STAT. § 44.020 (2007).

³⁹³ Mo. Exc. Order No. 98-03 (1998).

³⁹⁴ Schmutzler, *supra* note 391.

C. Applicant Agencies

1. State Transportation Agencies

As discussed previously, state transportation agencies may adopt multiple roles, depending on the state and the particular agency. A state DOT, for example, could be delegated some responsibility for overseeing environmental compliance.³⁹⁵ A more common role filled by state DOTs is that of applicant agency, either directly or indirectly, via assistance to local agencies. The state DOT is the owner, operator, and maintainer of state transportation facilities; thus, it is often the applicant agency for the recovery of its own facilities. Each state DOT contains an environmental division which works with federal and state environmental agencies and has expertise in different environmental areas.

a. The Minnesota Department of Transportation.—Minnesota Department of Transportation (MnDOT) staff members were interviewed on effective practices for successfully complying with environmental procedures for emergencies. These practices include the use of inventory tools, the delegation of FHWA duties, programmatic agreements, interagency staffing arrangements, strong interagency relationships, diverse staff expertise, and the use of innovative contracting methods.

MnDOT and its sister agencies, such as the Minnesota DNR, maintain up-to-date inventories of environmental, historic, and archaeological resources using a Geographic Information Systems (GIS) database.³⁹⁶ As part of a historic bridge programmatic agreement, MnDOT conducted a state-wide inventory of historic bridges.³⁹⁷ The availability of accurate data leads to a faster and more reliable environmental compliance process. For example, the Section 106 review for the I-35W Bridge project was accelerated because known historic properties were readily available from MnDOT's GIS database.³⁹⁸

³⁹⁵ For example, MAP-21, 23 U.S.C. § 327, allows the delegation of FHWA's NEPA coordination role to states.

³⁹⁶ John A. Volpe, NAT'L TRANSP. SYS. CENTER, MEETING ENVIRONMENTAL REQUIREMENTS AFTER A BRIDGE COLLAPSE 17 (2008) [hereinafter Volpe].

³⁹⁷ Email from Kristen Zschomler, Cultural Res. Unit Supervisor, Minn. Dep't. of Transp., to Carlos C. Sun, Assoc. Professor, Univ. of Missouri (March 15, 2013, 10:36 CST) (on file with author).

³⁹⁸ Email from Lynn Clarkowski, Director and Chief Environmental Officer, Minn. Dep't. of Transp., to Carlos C. Sun, Associate Professor, University of Missouri (March 15, 2013, 10:36 CST) (on file with author).

FHWA has delegated its Section 106 review authority to MnDOT's Cultural Resources Unit (CRU).³⁹⁹ Although FHWA remains legally responsible, federally-funded projects are instead submitted to MnDOT for review, and MnDOT subsequently makes all Section 106 determinations on behalf of FHWA.⁴⁰⁰ Thus, if MnDOT determines that no historic properties are implicated, then the Section 106 review is complete.⁴⁰¹ This eliminates the 30-day SHPO comment and consultation period.⁴⁰² Such a situation applies to approximately 75 percent of the projects undertaken by MnDOT. MnDOT has also employed some interagency agreements, many of which apply to emergency projects. The aforementioned Section 106 programmatic agreement between MnDOT, FHWA, SHPO, the Corps, and the Advisory Council is one example.⁴⁰³ Other examples include the various tribal agreements that have resulted in exempted tribal review for several classes of projects.⁴⁰⁴

MnDOT strengthened its relationship with the Minnesota DNR by funding a DNR staff position. While, technically, this staff member is a DNR employee, the staff member works only on DOT projects and permits, and has an office in MnDOT.⁴⁰⁵ The staff member is frequently involved in disaster and emergency relief, and works with DNR to ensure that permits are issued quickly.⁴⁰⁶ The staff member produced a best practices publication to assist MnDOT in obtaining general permits for public water works, stormwater discharge, and temporary appropriations.⁴⁰⁷ This publication included useful suggestions for species protection, hydraulic and hydrologic design, in-water construction, and worksite sediment and erosion control.⁴⁰⁸

One reason for the reported high level of trust between oversight agencies and MnDOT is the diverse and respected team of environmental pro-

fessionals that are employed by MnDOT.⁴⁰⁹ Thus, the reason the SHPO agreed to an alternate Section 106 arrangement was due to the strong team of nine expert historians, architectural historians, and archaeologists that were members of CRU.⁴¹⁰ The DNR staff position funded by MnDOT also exemplifies the level of trust and cooperation existing between MnDOT and DNR.⁴¹¹

MnDOT employs innovative contracting methods, such as design-build, to accelerate project delivery for recovery projects. MnDOT obtained legislative authority for design-build best value procurement in 2001, and has awarded over \$1 billion in design-build projects since that time.⁴¹² One example of the use of design-build for emergencies included the design-build contract for reconstruction of the I-35W Bridge.⁴¹³ MnDOT utilized FHWA's final rule allowing MnDOT to award a design-build (D-B) contract, issuing notices to proceed with preliminary design work before the NEPA process was finished.⁴¹⁴

b. The Missouri Department of Transportation.—The Missouri Department of Transportation's (MoDOT) reported best practices include the use of interagency agreements, the use of regional permits, environmental staffing, and interagency relationships. MoDOT entered into a programmatic CE agreement with FHWA wherein MoDOT has the authority to classify certain types of projects as CE without having to submit to FHWA for classification.⁴¹⁵ Several projects qualify under this agreement, including emergency repairs under ER.⁴¹⁶ Certain CE projects affecting significant public areas or involving select federal statutes are not part of the agreement.⁴¹⁷ MoDOT has utilized this agreement on emergency projects such as slide failures and bridge replacements.⁴¹⁸

³⁹⁹ Kristen Zschomler, *The Section 106 Process*, Minn. Dep't of Transp. 2010 Env'tl. Stewardship and Streamlining Workshop 4 (2010).

⁴⁰⁰ *Id.*

⁴⁰¹ Zschomler, *supra* note 399.

⁴⁰² Zschomler, *supra* note 399, at 13.

⁴⁰³ *Id.*

⁴⁰⁴ *Id.*

⁴⁰⁵ Zschomler, *supra* note 397.

⁴⁰⁶ *Id.*

⁴⁰⁷ Peter Leete, *Best Practices for Meeting DNR General Public Waters Work Permit GP2004-0001 ii-iii* (Dep't of Natural Res. 2010).

⁴⁰⁸ *Id.*

⁴⁰⁹ Zschomler, *supra* note 397.

⁴¹⁰ Zschomler, *supra* note 397.

⁴¹¹ Clarkowski, *supra* note 398.

⁴¹² Minn. Dep't of Transp., *Design-Build*, <http://www.dot.state.mn.us/designbuild> (last visited Feb. 2, 2014).

⁴¹³ Volpe, *supra* note 396, at 17.

⁴¹⁴ *Id.*

⁴¹⁵ Mo. Dep't of Transp. and Mo. Div. Fed. Highway Admin., *Programmatic Categorical Exclusion 1* (June 6, 2003) [hereinafter MoDOT CE PA].

⁴¹⁶ *Id.* at 1-3.

⁴¹⁷ *Id.* at 3.

⁴¹⁸ Interview with Gayle Unruh, Environmental & Historic Preservation Manager, Mo. Dep't. of Transp., in Jefferson City, Mo. (Feb. 20, 2013).

FHWA and MoDOT conduct a biennial review of the agreement to monitor its success.⁴¹⁹

FHWA and MoDOT have also entered into a general partnering agreement on environmental issues.⁴²⁰ This agreement clearly delineates the roles and responsibilities of the two parties.⁴²¹ Several ground rules are listed in the agreement, including a requirement for the timely relay of communications from stakeholders, the direction of district-level communications through MoDOT headquarters, and biannual meetings.⁴²² A hierarchy for conflict resolution starts with the MoDOT environmental manager and FHWA team leader and end with the MoDOT assistant chief engineer and FHWA division administrator.⁴²³ Target performance goals were listed in terms of FHWA approval lead times.⁴²⁴

MoDOT utilizes the Corps general permit (GP) for emergency flood-related type activities, GP-41.⁴²⁵ Such permits are developed regionally.⁴²⁶ In order to qualify for this permit, the governor or the president must issue a disaster declaration.⁴²⁷ Such a permit authorizes certain types of flood-related fill or excavation and other associated flood-protection and repair work.⁴²⁸ The permit allows post-construction notification, thus eliminating the lead time associated with pre-construction notification.⁴²⁹ For example, GP-41 has been used to repair bridges, highway embankments, and stream banks, and to build temporary roads.⁴³⁰ Such GPs are only used in approximately 8 of the 37 Corps districts in the contiguous United States.⁴³¹ During the 2008

floods, many localized incidences of slide failure occurred, and GP-41 was used extensively.⁴³²

MoDOT reports that its strong team of environmental staff is a major reason for its success in terms of emergency environmental compliance. Many of MoDOT's environmental staff possess graduate degrees in specialized environmental areas; this includes the environmental & historic preservation manager, archeology field director, and wetland coordinator.⁴³³ MoDOT maintains a core group of staff members who help to maintain institutional knowledge and long-term inter-agency relationships. Many of the environmental area leads have worked at MoDOT for 16 to 19 years.⁴³⁴ One reason for the successful adoption of the CE programmatic agreement is FHWA's respect for MoDOT's environmental capabilities.⁴³⁵

MoDOT staff believes there are good working relationships between environmental agencies in Missouri and strong relationships at the upper management level, e.g., between the directors, chiefs, and chief engineers.⁴³⁶ The management sets the tone in terms of interagency cooperation. Relationships are fostered via regular and special meetings, such as water quality, wetlands, and stream permitting meetings.⁴³⁷ For example, MoDOT and the Missouri DNR co-sponsored a wetlands mitigation/banking meeting, inviting other agencies such as the Corps, MoDOT, EPA, and National Resource Conservation Service (NRCS).⁴³⁸ FHWA mentioned that the rapport between FHWA and MoDOT was one reason for the adoption of the CE programmatic agreement.⁴³⁹ As mentioned previously, one reason for the good long-term relationships is MoDOT's preservation of a strong core of experts for an extended period of time.⁴⁴⁰ The Corps mentioned two reasons for the good relationship between MoDOT and the Corps. One reason was MoDOT's responsiveness to the Corps requirements and information

⁴¹⁹ MoDOT CE PA, *supra* note 415, at 1.

⁴²⁰ Fed. Highway Admin. Mo. Division/Mo. Dep't of Transp. Partnering Agreement 1-3 (Jan. 29, 2014) [hereinafter Partnering Agreement].

⁴²¹ *Id.*

⁴²² *Id.* at 4.

⁴²³ *Id.* at 4-5.

⁴²⁴ *Id.* at 2-3, 5.

⁴²⁵ Email from Buck Brooks, Wetland Coordinator, Mo. Dep't. of Transp., to Carlos C. Sun, Assoc. Professor, Univ. of Missouri (Feb. 21, 2013, 9:25 CST) (on file with author).

⁴²⁶ *Id.*

⁴²⁷ *Id.*

⁴²⁸ *Id.*

⁴²⁹ *Id.*

⁴³⁰ U.S. Army Corps of Eng'rs, Public Notice Permit No. GP-41 (2008-2013).

⁴³¹ Brooks, *supra* note 425.

⁴³² *Id.*

⁴³³ Unruh, *supra* note 418.

⁴³⁴ Telephone Interview with Michael Meinkoth, Archeology Field Dir., Mo. Dep't of Transp. (Feb. 20, 2013).

⁴³⁵ MoDOT CE PA, *supra* note 415, at 1.

⁴³⁶ Unruh, *supra* note 418.

⁴³⁷ Brooks, *supra* note 425.

⁴³⁸ *Id.*

⁴³⁹ MoDOT CE PA, *supra* note 415, at 1.

⁴⁴⁰ Unruh, *supra* note 418.

requests.⁴⁴¹ Another reason was the frequency of contact between the two agencies on regular projects and meetings.⁴⁴² SEMA also highlighted MoDOT's diligence in responding to SEMA requests as a reason for the strong work relationship between the two agencies.⁴⁴³

c. The Oregon Department of Transportation.—Two best practices reported by Oregon Department of Transportation (ODOT) staff include an organization-wide emphasis on environmental stewardship and strong relationships with environmental stakeholders.⁴⁴⁴ This emphasis is derived from the high value that Oregon citizens place on environmental stewardship. The public is highly interested in the functions of ODOT, which has an impact on ODOT's resources.⁴⁴⁵ The public is also highly engaged in ODOT activities via meetings, hearings, and commentary. The Oregon public is well versed in the political arena, and is active in engaging the state legislature and federal representatives.⁴⁴⁶ Though public demands can be exorbitant on occasion, the final outcome is usually positive, with fewer "surprises" toward the end of the public process.⁴⁴⁷ Public sentiment is also reflected in ODOT's leadership and staffing, and ODOT's concern for environmental issues results in the agency going above and beyond basic legal requirements.⁴⁴⁸ Environmental staff in specific areas strongly advocate for their respective areas of expertise.⁴⁴⁹

One key to ODOT's environmental compliance involves the strong relationships it has forged with other agencies and with the public.⁴⁵⁰ One reason for these strong relationships is the continuity among ODOT's environmental staff.⁴⁵¹ A low staff turnover rate can be partially attributed to stability in the state's growth rate, as well as strong management and leadership in environmental areas.⁴⁵²

⁴⁴¹ Telephone interview with Jennifer Brown, St. Louis Div. Regulatory Branch, U.S. Army Corps of Engs. (Feb. 13, 2014).

⁴⁴² *Id.*

⁴⁴³ Schmutzler, *supra* note 391.

⁴⁴⁴ Telephone Interview with Darlene Weaver, NEPA Program Manager, Or. Dep't of Transp. (Jan. 7, 2014).

⁴⁴⁵ *Id.*

⁴⁴⁶ *Id.*

⁴⁴⁷ *Id.*

⁴⁴⁸ *Id.*

⁴⁴⁹ Weaver, *supra* note 444.

⁴⁵⁰ *Id.*

⁴⁵¹ *Id.*

⁴⁵² *Id.*

d. The North Dakota Department of Transportation.—North Dakota Department of Transportation (NDDOT) has taken the following approaches to emergency environmental compliance. A programmatic agreement was established between the Corps, Fish & Wildlife, FHWA, and NDDOT on defining NEPA requirements for emergency repairs.⁴⁵³ NDDOT funds one-and-a-half staff positions at the Corps and Fish & Wildlife. The FHWA Division Office and NDDOT utilize informal consultation procedures to expedite ESA⁴⁵⁴ compliance.⁴⁵⁵ NDDOT works with the SHPO on multiple emergency relief projects simultaneously, thus expediting the review process.⁴⁵⁶ NDDOT also conducts archaeological surveys in high risk areas to discover potential locations ahead of time.⁴⁵⁷

e. The Florida Department of Transportation.—Florida Department of Transportation (FDOT) implemented a GIS-based environmental screening tool that integrated multiple environmental resources and project data.⁴⁵⁸ This tool allows for the rapid identification of potential environmental resources.⁴⁵⁹ The use of design-build contracting was one reason for the rapid recovery following Hurricane Ivan.⁴⁶⁰ Design-build allowed flexibility in environmental permitting and mitigation, since design and construction were integrated.⁴⁶¹ Previously, the Florida Department of Environmental Protection (FDEP) and FDOT had a difficult relationship stemming from differences in agency missions and processes.⁴⁶² Over time, the relationship between FDOT and other environmental agencies, including FDEP, was improved through specific projects and a quarterly committee

⁴⁵³ Emergency Relief Programmatic Agreement between the U.S. Army Corps of Engineers (USACE), the U.S. Fish and Wildlife Service (USFWS), the FHWA ND Division, and NDDOT (Mar. 31, 2011) [hereinafter N.D. ER PA].

⁴⁵⁴ Endangered Species Act, 16 U.S.C. §§ 1531–1544 (2012).

⁴⁵⁵ Mark Schrader and Stephanie M. Stoermer, *North Dakota's Proactive Response to Emergencies & Disasters*, THE ENVIRONMENTAL QUARTERLY, Oct. 11, 2011, at 12.

⁴⁵⁶ *Id.*

⁴⁵⁷ *Id.*

⁴⁵⁸ Fla. Dep't of Transp., *Efficient Transportation Decision Making Manual* 1-1, 1-2 (2013).

⁴⁵⁹ *Id.* at 6-1.

⁴⁶⁰ Volpe, *supra* note 396, at 14.

⁴⁶¹ *Id.*

⁴⁶² *Id.* at 13–14.

meeting that addressed transportation-related issues.⁴⁶³ These relationships allowed the tailoring of permits to FDOT's needs, and an improved permitting process.⁴⁶⁴

f. The California Department of Transportation.—California Department of Transportation's (Caltrans) reported best practices include flexible emergency environmental processes, alternate contracting processes, cultural and historic resource databases, and assignment of USDOT NEPA review responsibilities. Emergency environmental processes and requirements exist for emergencies in California, including threat of failure emergencies.⁴⁶⁵ Work is allowed to proceed concurrent to permit applications and informal consultations.⁴⁶⁶ This applies even in areas containing sensitive species or habitats.⁴⁶⁷ Highway repairs for emergencies caused by fire, flood, storm, earthquake, land subsidence, gradual earth movement, or landslide are statutorily exempt from the California Environmental Quality Act (CEQA)⁴⁶⁸ provided there is no expansion or widening and the project is initiated within 1 year of the damage occurring.⁴⁶⁹ However, the permission to proceed does not guarantee eligibility for federal ER funding.⁴⁷⁰ Mitigation could be required, although mitigation costs could be eligible for ER funds.⁴⁷¹

Caltrans is authorized to use alternate contracting processes in lieu of the formal advertising, bidding, and award process for emergency projects.⁴⁷² Applicable projects can include bridges, highways, or dams for water facility failures.⁴⁷³ Though environmental procedures are not waived, this flexibility in contracting may accelerate permitting and avoid a sequential contracting timeline.

Caltrans maintains databases of historic and cultural resources.⁴⁷⁴ Cultural resource information can be sensitive and is not shared publicly.⁴⁷⁵ The historic bridge inventory is available to the public online.⁴⁷⁶ California was also the only state to participate in the pilot NEPA assignment program under the Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA-LU)⁴⁷⁷ and has continued the program under Moving Ahead for Progress in the 21st Century (MAP-21)⁴⁷⁸ legislation.⁴⁷⁹ Under a memorandum of understanding (MOU) with FHWA, Caltrans was assigned USDOT's responsibilities for environmental review under NEPA.⁴⁸⁰

2. The County/Local Level and Relationships with State DOTs

Emergency response typically begins at the local level.⁴⁸¹ Local leaders need to understand the perspectives of their local community on environmental issues, as these leaders know their community best. A good example at the state level is that of Oregon, which is very active in public outreach involving local communities.⁴⁸² When the local community is engaged and informed ahead of time, there is less chance for the last minute derailment of recovery efforts. Because local communities may not have comprehensive expertise for handling emergencies, assistance from higher levels of government is often highly beneficial.⁴⁸³ Local communities often require assistance for understanding environmental requirements, federal contracting procedures, and emergency ex-

⁴⁶³ *Id.*

⁴⁶⁴ *Id.*

⁴⁶⁵ CAL. CONTRACT CODE § 10122(a) (2012).

⁴⁶⁶ Cal. Dep't of Transp. Div. of Env. Analysis, *Emergency Projects Environmental Process and Requirements 1* (2012).

⁴⁶⁷ *Id.* at 3.

⁴⁶⁸ California Environmental Quality Act, CAL. PUB. RES. §§ 21000-21177 (2012).

⁴⁶⁹ *Id.* at 2.

⁴⁷⁰ *Id.* at 1.

⁴⁷¹ *Id.*

⁴⁷² Deputy Directive DD-26-R2, Cal. Dep't of Transp. 1 (July 31, 2009).

⁴⁷³ *Id.*

⁴⁷⁴ Email from Jeremy Ketcham, Senior Env'tl. Planner, Cal. Dep't of Transp., to Carlos Sun, Assoc. Professor, University of Mo. (March 1, 2013, 5:16 CST) (on file with author).

⁴⁷⁵ *Id.*

⁴⁷⁶ *Id.*

⁴⁷⁷ Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Pub. L. No. 109-59 (2005).

⁴⁷⁸ MAP-21, Pub. L. No. 112-141 (2012).

⁴⁷⁹ Memorandum of Understanding Between the Fed. Highway Admin. and the Cal. Dep't of Transp. Concerning the State of Cal's Participation in the Project Delivery Program Pursuant to 23 U.S.C. 327 1-3 (Oct. 1, 2012).

⁴⁸⁰ *Id.* at 1.

⁴⁸¹ Homeland Security, *supra* note 339, at 15.

⁴⁸² Weaver, *supra* note 444.

⁴⁸³ Homeland Security, *supra* note 339, at 16.

pense eligibility.⁴⁸⁴ Thus the local experience with emergency environmental compliance is captured via the state agencies that assist with their applications such as state DOTs. Cooperating agency experience indicate that local communities who are not assisted by the state DOT fair much worse, because they are unfamiliar with agency expectations and procedures.⁴⁸⁵ In addition, local communities sometimes lack the financial resources to design properly and comply with environmental requirements.⁴⁸⁶

Though state DOTs often take on the applicant role, they may also adopt a coordinating role, may be delegated as the authority for environmental review, or may be intrinsically tied to another coordinating agency such as the state DNR. Since state DOTs follow similar environmental oversight procedures, MoDOT is herein used as an example. MoDOT can be the administrator of funds for federally-funded local projects. As such, MoDOT furnishes information to assist the local applicant, as well as coordinates the environmental review and issues approvals.⁴⁸⁷ MoDOT assists the local community in complying with all applicable federal and state environmental laws.⁴⁸⁸ For NEPA, MoDOT reviews the local NEPA document, determines the NEPA classification, and notifies the local community of other permits and clearances that must be obtained.⁴⁸⁹ For example, MoDOT might ask the local community to submit a Categorical Exclusion 2 (CE2) form that describes likely but uncertain impacts and mitigation measures; to submit a preliminary Environmental Assessment (pEA) document and the necessary surveys; or to document social justice issues.⁴⁹⁰ MoDOT then distributes the submitted documents to cooperating agencies for their review and comment, and coordinates the public review when applicable.⁴⁹¹ MoDOT also works

closely with FHWA to obtain federal approval when necessary.⁴⁹²

In addition to NEPA, MoDOT assists and coordinates local compliance with a full range of environmental laws.⁴⁹³ In general, all local communities require significant assistance from MoDOT, although a few communities who hire consultants well versed in environmental regulations fare slightly better.⁴⁹⁴ MoDOT could assist local communities in working with the Corps on stream crossing, channel modification, and wetlands;⁴⁹⁵ Missouri DNR on water quality;⁴⁹⁶ EPA/DNR on stormwater and erosion control;⁴⁹⁷ State Emergency Management Agency/FEMA on buyout lands; FEMA on floodplains and regulatory floodways;⁴⁹⁸ National Resources Conservation Service (NRCS) Office on farmland conversions;⁴⁹⁹ EPA/Metropolitan Planning Organization on air quality;⁵⁰⁰ FHWA on park lands;⁵⁰¹ National Park Service on public outdoor recreation facilities;⁵⁰² SHPO/DNR and local tribes on historic and archaeological sites and historic bridges;⁵⁰³ Missouri Department of Conservation on threatened and endangered species;⁵⁰⁴ and EPA/DNR on hazardous waste.⁵⁰⁵ Cooperating agencies indicate that

⁴⁹² *Id.* at 58.

⁴⁹³ *Id.* at 60-80 (paragraph 136.4.5).

⁴⁹⁴ Telephone interview with Dan Salisbury, Assistant Dist. Eng'r Joplin Area, Mo. Dep't of Transp. (Feb. 12, 2014).

⁴⁹⁵ Clean Water Act Section 404, 33 U.S.C. § 1344 (2002).

⁴⁹⁶ Clean Water Act Section 401, 33 U.S.C. § 1341 (2002).

⁴⁹⁷ Clean Water Act, 33 U.S.C. §§ 1251-1387 (2013); National Pollutant Discharge Elimination System 33 U.S.C. § 1324 (2013).

⁴⁹⁸ Exec. Order No. 11988 (1977); 23 C.F.R. § 650 (2014).

⁴⁹⁹ Farmland Protection Policy Act, 7 U.S.C. §§ 4201-4209 (2012).

⁵⁰⁰ Clean Air Act, 42 U.S.C. §§ 7401-7671 (2012); 23 C.F.R. § 450.104 (2014).

⁵⁰¹ 49 U.S.C. § 303 (2012).

⁵⁰² Land and Water Conservation Fund Act 16 U.S.C. §§ 4601-4 to -11 (2013).

⁵⁰³ National Historic Preservation Act Section 106, 16 U.S.C. § 470f (2012).

⁵⁰⁴ Endangered Species Act, 16 U.S.C. §§ 1531-1544 (2013); Migratory Bird Treaty Act, 16 U.S.C. §§ 703-712 (2012).

⁵⁰⁵ Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675 (2013).

⁴⁸⁴ Cathy Kendall & Nahir DeTizio, *Emergency Response-Florida Action*, THE ENVIRONMENTAL QUARTERLY, Oct. 11, 2011, at 5.

⁴⁸⁵ Brown, *supra* note 441.

⁴⁸⁶ *Id.*

⁴⁸⁷ Mo. Dep't of Transp., *EPG 136 Local Public Agency (LPA) Policy*, 3 available at http://epg.modot.mo.gov/files/0/0e/136_Local_Public_Agency_Aug_11_2010.doc.

⁴⁸⁸ *Id.* at 60.

⁴⁸⁹ *Id.* at 43-44.

⁴⁹⁰ 23 U.S.C. § 109(h) (2014); Exec. Order No. 13166 (2000).

⁴⁹¹ Mo. Dep't of Transp, *supra* note 487, at 47.

local cities and counties are much more difficult to work with when they do not take advantage of assistance provided by the state DOT.⁵⁰⁶

D. Resource Agencies and Entities

The enormous number of resource agencies associated with environmental laws and regulations prohibits the detailed discussion of each individual agency; however, brief discussions of certain agencies may help to illustrate jurisdiction, statutory authority, typical procedures, and enforcement mechanisms.

1. U.S. Army Corps of Engineers

The Corps regulates through the review and issuance of permits and inspection for compliance. Permits related to the Rivers and Harbors Act include Section 10 permits covering construction, excavation, or the deposit of materials; Section 9 permits relating to dams and dikes; Section 13 permits covering refuse disposal; and Section 14 permits covering temporary occupation.⁵⁰⁷ CWA-related permits include Section 404 permits covering the discharge of dredged or fill materials and Section 402 covering the discharge of all other pollutants.⁵⁰⁸ Permitting associated with the Marine Protection, Research and Sanctuaries Act Section 103 involves the transportation of dredged material to be dumped in the ocean.⁵⁰⁹ Permit violations could result in criminal, civil, and administrative penalties.⁵¹⁰

One technique for expediting emergency environmental permitting by the Corps is to accelerate the approval for recognized emergencies or to allow informal arrangements such as a verbal authorization to proceed.⁵¹¹ Another useful technique for emergency environmental compliance is the development of regional permits such as GP-41. GP-41 is a general permit issued for the permanent protection and/or repair of flood damaged

structures, land areas, and fills.⁵¹² This permit applies in the states of Kansas and Missouri. Such flood-related general permits are uncommon and used in only approximately 8 of the 37 Corps districts.⁵¹³

2. U.S. Fish and Wildlife Service and NOAA-Fisheries

Fish & Wildlife is responsible for the permitting and enforcement of several wildlife laws, including the ESA,⁵¹⁴ the Marine Mammal Protection Act,⁵¹⁵ the Migratory Bird Treaty Act,⁵¹⁶ the Wild Bird Conservation Act,⁵¹⁷ and the Bald and Golden Eagle Protection Act.⁵¹⁸ For example, Fish & Wildlife issues Section 10 incidental take permits for authorizing activities such as highway bridge construction.⁵¹⁹ A requirement of the take permit is that an agency must develop a habitat conservation plan that specifies likely impacts and mitigation strategies.⁵²⁰ NOAA-Fisheries shares ESA and Marine Mammal Protection Act responsibilities with Fish & Wildlife.⁵²¹ As of 2009, the list of endangered species in the United States included 411 animals and 600 plants, and the list of threatened species in the United States included 163 animals and 146 plants, for a total of 1,320 endangered and threatened species.⁵²² In general, Fish & Wildlife is responsible for terrestrial and freshwater species, while NOAA-Fisheries is responsible for most marine and ana-

⁵⁰⁶ *E.g.*, Brown, *supra* note 441.

⁵⁰⁷ Rivers and Harbors Appropriation Act of 1899, as amended, 33 U.S.C. §§ 401–418 (2000).

⁵⁰⁸ Clean Water Act, 33 U.S.C. §§ 1251–1387 (2002).

⁵⁰⁹ Marine Protection, Research, and Sanctuaries Act, 33 U.S.C. §§ 1411, 1413 (2000).

⁵¹⁰ U.S. Army Corps of Engs., *Regulatory Jurisdiction Overview*, http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/juris_info.aspx (last visited Feb. 6, 2014).

⁵¹¹ Brown, *supra* note 441.

⁵¹² Public notice, U.S. Army Corps of Engs., Proposed Reissuance of Regional General Permit No. 41 (Dec. 21, 2012) (on file with author).

⁵¹³ Brooks, *supra* note 425.

⁵¹⁴ Endangered Species Act, 16 U.S.C. §§ 1531–1544 (2013).

⁵¹⁵ Marine Mammal Protection Act, 16 U.S.C. §§ 1361–1423 (2013).

⁵¹⁶ Migratory Bird Treaty Act, 16 U.S.C. §§ 703–712 (2012).

⁵¹⁷ Wild Bird Conservation Act, 16 U.S.C. §§ 4901–4916 (2013).

⁵¹⁸ Bald and Golden Eagle Protection Act, 16 U.S.C. § 668 (2012); see U.S. Fish and Wildlife Serv., *Leaving a Lasting Legacy: Permits as a Conservation Tool 2*, (2002), available at <http://www.fws.gov/permits/legacy/fs.pdf>.

⁵¹⁹ 16 U.S.C. § 1539 (2013).

⁵²⁰ *Id.*

⁵²¹ Nat'l Marine Fisheries Serv., ENDANGERED SPECIES BULLETIN, Vol. 34, No. 2, at 4 (2009).

⁵²² *Id.* at 43.

dromous species.⁵²³ NOAA-Fisheries is responsible for 68 marine species.⁵²⁴

3. *The Advisory Council on Historic Preservation/State Historic Preservation Officer*

The Advisory Council on Historic Preservation (Advisory Council) is an independent federal agency that advises the president and congress on historic preservation policy⁵²⁵ and issues regulations to implement National Historic Preservation Act Section 106.⁵²⁶ On rare occasions, the Advisory Council could be involved directly in resolving Section 106 disputes if the dispute was unsuccessfully resolved at the state or tribal level.⁵²⁷ The SHPO is the state officer responsible for administering the responsibilities of NHPA.⁵²⁸ The SHPO consults with federal agencies during NRHP Section 106 review, reviews NRHP nominations, and maintains data on identified historic properties.⁵²⁹

4. *Tribal Sovereign Nations*

Federally recognized Indian tribes possess nationhood status and retain inherent powers of self-government.⁵³⁰ A list of federally recognized tribes is published annually by the secretary of the interior in the Federal Register.⁵³¹ A primary area requiring tribal consultation stems from Section 106 of the National Historical Preservation Act.⁵³² Thus, any undertakings that may affect historic properties of religious and cultural significance require federal agencies to consult with the affected tribe.⁵³³ Tribes have the option to designate a Tribal Historic Preservation Officer to assume any or all of the functions of a SHPO with respect to tribal land.⁵³⁴

⁵²³ *Id.* at 4.

⁵²⁴ *Id.* at 4.

⁵²⁵ 16 § U.S.C. 470i-j (2013).

⁵²⁶ 36 C.F.R. § 800.2(b) (2014).

⁵²⁷ Advisory Council on Historic Pres., *About the ACHP: General Information*, <http://www.achp.gov/about/achp.html> (last visited Feb. 8, 2014).

⁵²⁸ 16 U.S.C. § 470a(a) (2013).

⁵²⁹ 16 U.S.C. § 470a(a) (2013).

⁵³⁰ U.S. CONST. art. 1, § 8 and treaties, statutes, and court decisions.

⁵³¹ Fed. Reg. 78, 87 (May 6, 2013).

⁵³² National Historic Preservation Act, 16 U.S.C. § 470f (2006).

⁵³³ National Historic Preservation Act, 16 U.S.C. § 470a(a) (2006).

⁵³⁴ 16 U.S.C. § 470a(d) (2013).

5. *Departments of Natural Resources*

A department of natural resources (DNR) is a type of state agency that relates to several environmental laws. A DNR therefore serves as an apt illustrative example of a state resource agency. The Missouri DNR, for example, encompasses a wide range of programs including soil and water conservation, water resources, air pollution, hazardous waste, land reclamation, solid waste, water protection, geological surveys, the SHPO, and energy resources.⁵³⁵

The actions typically taken by a state DNR in the event of a major emergency occur sequentially as follows. After a major emergency has occurred, the governor declares a state of emergency, and may request the president to declare a state of emergency.⁵³⁶ The DNR works with the governor and the State Emergency Management Agency (SEMA) to issue executive orders that will grant the DNR director the power and authority to waive certain statutory requirements.⁵³⁷ For example, the DNR could ask for a waiver in dealing with debris, such as easing landfill segregation restrictions or allowing open burning.⁵³⁸ In a state-declared emergency involving a single state, state agencies operate within their normal funding streams, and there is typically no access to additional disaster funds.⁵³⁹ If a federal declaration occurs, then there is a split of funds that could include 75 percent federal and 25 percent state and local (or 90 percent federal and 10 percent state in severe cases, such as the Joplin tornado).⁵⁴⁰ In terms of state and local shares, the state might pick up the majority, as in 15 percent or 20 percent.⁵⁴¹ Once federal funds come into play, the DNR takes on the role of issuing documents ensuring that the state is in compliance with NEPA.⁵⁴² The DNR may work with agencies such as FEMA, EPA, and the Corps in documenting that federal and state statutes and regulations are followed when seeking reimbursement.⁵⁴³

⁵³⁵ Telephone Interview with Brian Allen, Emergency Response Chief, Mo. Dep't of Natural Res. (June 7, 2013).

⁵³⁶ *Id.*

⁵³⁷ *Id.*

⁵³⁸ *Id.*

⁵³⁹ *Id.*

⁵⁴⁰ *Id.*

⁵⁴¹ Allen, *supra* note 535.

⁵⁴² *Id.*

⁵⁴³ *Id.*

According to Missouri DNR staff, strong relationships exist between the state DNR and federal regional offices of various federal agencies, as well as between the DNR and its sister state agencies, such as the DOT.⁵⁴⁴ This strong working relationship is illustrated by the DNR's openness to requesting assistance from such agencies.⁵⁴⁵ For example, the DNR would not hesitate to request mission assignments from other agencies for the management of a particular response, or to request other types of assistance.⁵⁴⁶ These strong relationships help to eliminate regulatory obstacles so that recovery can gain traction.⁵⁴⁷

E. Summary of Case Studies

Table 2 summarizes the emergency projects or case studies that were reviewed for this project. These case studies involved 10 different states that were distributed geographically throughout the nation. The types of emergencies covered by the case studies included hurricanes, tornados, wildfires, floods, structural failures, and severe accidents.

⁵⁴⁴ Allen, *supra* note 535.

⁵⁴⁵ *Id.*

⁵⁴⁶ *Id.*

⁵⁴⁷ *Id.*

Table 2. Summary of emergency projects.

Emergency	Project	Year	State	Main Agencies
Bridge Failure	I-35W Minneapolis Bridge	2007	MN	MnDOT, FHWA
Hurricane Ivan	I-10 Escambia Bay Bridge	2004	FL	FDOT, FHWA
Barge Accident	I-40 Arkansas River Bridge	2002	OK	ODOT, FHWA
Hurricane Katrina	US-90 Biloxi Bay Bridge and St. Louis Bay Bridge	2005	MS	MDOT, FHWA
Floods	Western North Dakota slide	2011	ND	NDDOT, FHWA
Bridge Cracking	Crown Point Bridge	2009	NY, VT	NYSDOT, VTTrans
Wildfires	Bastrop road repair	2011	TX	TxDOT, FHWA
Hurricane Irene	Windsor and Windham County bridges	2011	VT	VTTrans, FHWA, FEMA
Joplin Tornado	Intersection repair near hospital	2011	MO	Joplin, MoDOT
Floods	Roads and bridges	2013	CO	CDOT, FHWA

1. I-35W Bridge Collapse over the Mississippi River in Minneapolis, Minnesota

Completed in 1967, the I-35W bridge was located near the I-94 junction in the heart of Minneapolis over the Mississippi River.⁵⁴⁸ It was the fourth busiest bridge in Minnesota.⁵⁴⁹ On August 1, 2007, a 1,000-foot-long deck truss of the eight-lane bridge collapsed.⁵⁵⁰ Approximately half of the deck truss fell into the river below.⁵⁵¹ As a consequence, 111 vehicles fell, 145 people were injured, and 13 people were killed.⁵⁵² At the time of the collapse, the bridge carried an average daily traffic of 141,000 vehicles, with 5,640 being heavy trucks.⁵⁵³

An emergency declaration was issued by the governor of Minnesota on August 2, 2007.⁵⁵⁴ The

⁵⁴⁸ Nat. Transp. Safety Board, *Highway Accident Report: Collapse of I-35W Highway Bridge 5* (2008).

⁵⁴⁹ Volpe, *supra* note 396, at 14.

⁵⁵⁰ Nat. Transp. Safety Board, *supra* note 548, at 1.

⁵⁵¹ *Id.*

⁵⁵² *Id.*

⁵⁵³ *Id.* at 6.

⁵⁵⁴ Minn. Emergency Exec. Order No. 07-09 (Aug. 2, 2007).

president also issued an emergency declaration on August 21, 2007, mobilizing FEMA and authorizing the use of Stafford Emergency Assistance at 75 percent federal funding.⁵⁵⁵ The high public profile of the I-35W bridge and the declared state-of-emergency evidenced the importance and urgency of the ensuing recovery efforts. Nonetheless, no waivers or exemptions from environmental permitting were issued accompanying the declarations.⁵⁵⁶

Excellent interagency relationships existing between the Minnesota Department of Transportation (MnDOT), environmental agencies, and other agencies helped to expedite reviews.⁵⁵⁷ The strong relationship between MnDOT and the Minnesota Department of Natural Resources (MNDNR) was the result of a long history of collaboration, as well as MnDOT's unique staffing of an MNDNR employee.⁵⁵⁸ MnDOT also quickly agreed with the City of Minneapolis upon the use of nearby park-

⁵⁵⁵ Emergency Declaration FEMA-3278-EM (Aug. 1, 2007).

⁵⁵⁶ Volpe, *supra* note 396, at 14.

⁵⁵⁷ *Id.* at 10.

⁵⁵⁸ *Id.* at 10.

land for construction staging in exchange for park improvements, without the need to iron out a formal written agreement.⁵⁵⁹

MnDOT had employed design-build contracting since 2001, and utilized this contracting method to accelerate project delivery for the I-35W bridge.⁵⁶⁰ This method allowed for the overlapping of environmental review with contracting and preliminary design work.⁵⁶¹ As a result, the project timeline was shorter than the sequential steps of traditional contracting.⁵⁶²

In terms of limiting project scope, MnDOT rebuilt the I-35W bridge using approximately the same alignment and left the operations unchanged, although the bridge was widened slightly to allow for future expansion, e.g., light rail.⁵⁶³ The bridge approach and nearby interchange improvements were excluded from the scope of the project.⁵⁶⁴ By maintaining the similarity of the new bridge, the ESA Section 7 consultation proceeded quickly, as the impacts on threatened or endangered species did not differ substantially from what occurred previously.⁵⁶⁵ The Minnesota DNR certified that an endangered mussel population would not be impacted.⁵⁶⁶ In terms of NEPA determination, this limited scope meant the project fit under CE.⁵⁶⁷

Reconstruction of the I-35W bridge required the dredging/filling of navigable waters under Section 404 of the CWA, which was satisfied by a permit issued by the United States Geological Survey (USGS) on behalf of the Corps.⁵⁶⁸ A general permit was adequate in this case because the disruption of the silt was deemed incidental to construction.⁵⁶⁹ Concerning impacts on navigation on the Mississippi River, USGS did not issue a permit until the final design was complete.⁵⁷⁰ For Section 402, governing stormwater discharge, a general permit was also adequate in this case.⁵⁷¹ In terms of NHPA Section 106 compliance, the

SHPO expedited its concurrence from 1 month to 4 days after MnDOT agreed to minimize impacts on a nearby historic rail yard.⁵⁷² The SHPO quickly identified potential historic sites through the use of its up-to-date database.⁵⁷³ For the National Pollutant Discharge Elimination System, a general permit was issued quickly by the Minnesota Pollution Control Agency, as there were no pollution discharge issues.⁵⁷⁴ In order to streamline the NEPA public involvement process, MnDOT adopted practices such as weekly informal meetings at the construction site.⁵⁷⁵ Due to the urgency of the emergency situation, the media and the public-at-large did not wish to deter the recovery effort.⁵⁷⁶ MnDOT complied with most environmental regulations and permitting requirements within 3 weeks of the collapse.⁵⁷⁷ The bridge was rebuilt, and was opened to traffic on September 18, 2008.⁵⁷⁸

2. Hurricane Ivan Destruction of I-10 over Escambia Bay

Hurricane Ivan was a Category 3 hurricane that crossed southern Florida,⁵⁷⁹ destroying a section of the I-10 bridge over Escambia Bay on September 16, 2004.⁵⁸⁰ This bridge provided critical east-west access to Pensacola, and was of national security interest.⁵⁸¹ An increase in the capacity of I-10 was already in FDOT's 20-year plan.⁵⁸² However, FDOT limited the scope of the recovery effort by not altering the bridge's approach capacities.⁵⁸³ Thus, though one lane was added in each direction on the bridge itself, traffic levels remained the same, as the approach capacities remained the same.⁵⁸⁴ The alignment was also left

⁵⁵⁹ *Id.* at 15.

⁵⁶⁰ *Id.* at 17.

⁵⁶¹ *Id.* at 17.

⁵⁶² Volpe, *supra* note 396, at 17.

⁵⁶³ *Id.* at 14.

⁵⁶⁴ *Id.* at 17.

⁵⁶⁵ *Id.* at 8.

⁵⁶⁶ *Id.* at 15.

⁵⁶⁷ *Id.* at 15.

⁵⁶⁸ Volpe, *supra* note 396, at 15.

⁵⁶⁹ *Id.* at 9.

⁵⁷⁰ *Id.* at 15.

⁵⁷¹ *Id.* at 9.

⁵⁷² *Id.* at 10.

⁵⁷³ *Id.* at 16.

⁵⁷⁴ Volpe, *supra* note 396, at 15.

⁵⁷⁵ *Id.* at 9.

⁵⁷⁶ *Id.*

⁵⁷⁷ *Id.* at 14.

⁵⁷⁸ Press Release, Minnesota Dep't of Transp., MnDOT Readies Roads for Opening of I-35W St. Anthony Falls Bridge (Sept. 16, 2008) (on file with author).

⁵⁷⁹ Nat. Oceanic and Atmospheric Administration, *Hurricanes in History*, <http://www.nhc.noaa.gov/outreach/history> (last visited Jan. 22, 2014).

⁵⁸⁰ Volpe, *supra* note 396, at 11.

⁵⁸¹ Dan Maxey, *I-10 Escambia Bay Bridge*, Fla. Institute of Consulting Engineers/Fla. Dep't of Transp. Design Conference (July 30, 2006).

⁵⁸² Volpe, *supra* note 396, at 14.

⁵⁸³ *Id.* at 4.

⁵⁸⁴ *Id.*

mostly unchanged, save for a shift to raise clearance from 12 to 25 ft at the lowest point.⁵⁸⁵ FDOT's limitation on scope enabled the recovery effort to be expedited while preparing the bridge for future road expansion.

Because FDOT had developed good relationships with environmental agencies over the long term, the established trust and familiarity resulted in quick and transparent actions in consultation and the issuance of permits.⁵⁸⁶ One example of how such relationships aided the permitting process involved the manner in which the Florida Department of Environmental Protection (FDEP) assisted FDOT in tailoring its permit applications to enable the permits to be processed quickly.⁵⁸⁷ Another factor in achieving a successful environmental process was the use of the design-build (D-B) contracting method, as opposed to the traditional design-bid-build method.⁵⁸⁸ D-B allowed the contractor to adopt a unified approach in design, construction, environmental permitting, and mitigation development.⁵⁸⁹ The constructor was responsible for all of the aforementioned tasks, and maintained flexibility in scheduling, coordinating, and implementing these tasks.⁵⁹⁰

The ESA consultation was smooth due to scope limitations.⁵⁹¹ However, the demolition of piers using explosives necessitated monitoring and mitigation, while nets kept endangered West Indian manatees and gulf sturgeons away from the construction activities.⁵⁹² Concerning the NEPA process, the limited scope of the project resulted in a Type 2 categorical exclusion.⁵⁹³ Because there were no historic or archaeological sites near the project, the SHPO issued a letter concurring with the previous no negative impact assessment on November 18, 2004.⁵⁹⁴

Only a general permit from the Corps was required to satisfy Section 404 since all silt disruption was incidental.⁵⁹⁵ However, for Section 403, a general permit was not adequate, and FDOT worked with the Florida State Department of

Environmental Quality (FDEQ) to offset the amount of increased stormwater discharged from the bridge.⁵⁹⁶ NOAA was consulted regarding compliance with the Coastal Zone Management Act, and it was determined that there was no negative impact on the coastal zone, and thus no need for mitigation.⁵⁹⁷ FDEP issued a consolidated wetland resource permit on May 18, 2005, requiring the monitoring of turbidity as a result of dredging and filling activities.⁵⁹⁸ A FDEP letter issued on June 9, 2005, satisfied EPA's air quality requirements.⁵⁹⁹ By statute, FDOT had 1 year to obtain an easement from FDEP for building over submerged land owned by the state; this requirement therefore did not delay the commencement of work.⁶⁰⁰ There was a delay in obtaining the United States Coast Guard (USCG) permit on navigable waters due to the arrival of Hurricane Katrina.⁶⁰¹ Except for the USCG permit, other permits and approvals were obtained relatively quickly. The westbound lanes of the I-10 bridge were opened to two-way traffic less than 3 weeks following Ivan.⁶⁰²

3. Towboat Accident over the Arkansas River near Webbers Falls, Oklahoma

On May 26, 2002, a towboat rammed a pier of the I-40 Bridge near Webbers Falls, Oklahoma, collapsing a 503-ft section of the bridge.⁶⁰³ The bridge, built in 1967, was over the Arkansas River—part of the McClellan-Kerr Arkansas River Navigation System (M-KARNS) operated by the Corps.⁶⁰⁴ The affected section of I-40 was a four-lane divided highway with an average daily traffic of 19,200 vehicles, with approximately 30 percent trucks.⁶⁰⁵ The I-40 section comprised part of the major east-west corridor between Memphis, Tennessee, and Oklahoma City, Oklahoma.⁶⁰⁶

⁵⁸⁵ *Id.* at 11–12.

⁵⁸⁶ *Id.* at 10.

⁵⁸⁷ Volpe, *supra* note 396, at 13–14.

⁵⁸⁸ *Id.* at 14.

⁵⁸⁹ *Id.*

⁵⁹⁰ *Id.*

⁵⁹¹ *Id.* at 8.

⁵⁹² *Id.*

⁵⁹³ Volpe, *supra* note 396, at 12.

⁵⁹⁴ *Id.* at 13.

⁵⁹⁵ *Id.* at 9.

⁵⁹⁶ FLA. ADMIN. CODE 62-25.040(3) (2006).

⁵⁹⁷ Volpe, *supra* note 396, at 9–10.

⁵⁹⁸ FLA. ADMIN. CODE 62-25.040(3).

⁵⁹⁹ Volpe, *supra* note 396, at 13.

⁶⁰⁰ Volpe, *supra* note 396, at 13.

⁶⁰¹ *Id.*

⁶⁰² *I-10 Bridge That Was Destroyed by Hurricane Ivan Will Reopen Today*, NW. FLA. DAILY NEWS, Oct. 5, 2004, at B2.

⁶⁰³ Nat. Transp. Safety Board, U.S. Towboat Robert Y. Love Allison with Interstate 40 Highway Bridge Near Webbers Falls, Oklahoma NTSB/HAR-04-/05 1 (2004).

⁶⁰⁴ *Id.*

⁶⁰⁵ *Id.* at 16, 19.

⁶⁰⁶ Volpe, *supra* note 396, at 19.

Some emergency procedures were used in the environmental compliance process, such as the temporary waiver of some permit requirements and public comment periods.⁶⁰⁷ Frequent site meetings involving high-level agency staff led to quick decisions onsite, without the need to consult with headquarters.⁶⁰⁸ The scope of the new project was limited by using the previous alignment and maintaining the same traffic capacity, despite an increase in pier size.⁶⁰⁹ Since no new right-of-way was implicated, the potential impacts of the project were due to reconstruction and staging only.⁶¹⁰ Using an existing memorandum of agreement between the Oklahoma DOT and FHWA, FHWA classified the project as a CE, and gave ODOT the authority to restrict NEPA activities.⁶¹¹ The day after the collapse, FHWA, ODOT, and the Corps determined that reconstruction would have no significant impact on the project area and surrounding environs.⁶¹² The Corps waived the permitting requirement for construction in navigable waters.⁶¹³

A CWA Section 404 permit was required due to dredging.⁶¹⁴ The Corps approved a request to delay the permit request until after the recovery and demolition of the bridge, and granted an emergency authorization.⁶¹⁵ General permits from the Corps were issued for CWA Section 403.⁶¹⁶ Though several protected species inhabited the project site, only the American Burying Beetle required protection during construction.⁶¹⁷ The Corps required ODOT to minimize the impact to the beetle's habitat, and Fish & Wildlife gave verbal approval to reconstruction.⁶¹⁸

Both the Cherokee Nation and the Corps owned land at the bridge ends.⁶¹⁹ A portion of the land contained a Fish & Wildlife refuge.⁶²⁰ ODOT desired to use Cherokee-owned river banks for

staging construction.⁶²¹ The agency had determined that the project would have no negative impacts on historic or cultural resources.⁶²² The Cherokee Nation waived the normal consultation requirements and concurred within 2 days, on the condition that the river banks be returned to their previous state.⁶²³ The SHPO also waived its mandatory 30-day review period, concurring within 1 day.⁶²⁴ The bridge was reopened 65 days following the incident.⁶²⁵

4. Hurricane Katrina Destruction of the Gulf Coast and U.S.-90

According to NOAA, Hurricane Katrina was one of the strongest Gulf storms of the past 100 years, causing widespread devastation along the central Gulf Coast, especially in the states of Louisiana, Alabama, and Mississippi.⁶²⁶ Katrina arrived at the Gulf Coast on August 29, 2005, and produced initial wind speeds of over 140 mph, with a precipitation rate of over 1 in. per hour for three consecutive hours.⁶²⁷ There were widespread disruptions to travel due to flooded roadways, debris on roadways, or destroyed bridges.⁶²⁸ In Mississippi, damage occurred to I-10, I-110, and US-90.⁶²⁹ US-90 is a major route along the Gulf Coast, running from Florida to Texas.⁶³⁰ Over 90 percent of structures near the Mississippi coast were destroyed, including the US-90 Biloxi Bay and US-90 Bay St. Louis bridges.⁶³¹ The Mississippi DOT (MDOT) had made it a priority to focus on the recovery of the US-90 bridges.⁶³² The four-lane Biloxi Bay Bridge was constructed in 1962 and connected the Mississippi cities of Biloxi and Ocean

⁶⁰⁷ *Id.* at 20.

⁶⁰⁸ *Id.* at 10.

⁶⁰⁹ *Id.* at 20.

⁶¹⁰ *Id.*

⁶¹¹ Volpe, *supra* note 396, at 20.

⁶¹² *Id.*

⁶¹³ *Id.*

⁶¹⁴ *Id.*

⁶¹⁵ *Id.*

⁶¹⁶ Volpe, *supra* note 396, at 8.

⁶¹⁷ *Id.* at 20.

⁶¹⁸ *Id.* at 20–21.

⁶¹⁹ *Id.* at 19.

⁶²⁰ *Id.*

⁶²¹ Volpe, *supra* note 396, at 7.

⁶²² *Id.* at 20.

⁶²³ *Id.* at 21.

⁶²⁴ *Id.* at 21.

⁶²⁵ *Id.* at 20.

⁶²⁶ Anne Waple, *Hurricane Katrina*, NOAA's National Climatic Data Center 1 (2005).

⁶²⁷ *Id.* at 5.

⁶²⁸ *Id.* at 6.

⁶²⁹ Kent Dussom & Mark McConnell, *Design-Build Program in Mississippi—Summary of Lessons Learned*, KYTC/FHWA/ACEC-KY Partnering Conference (2011).

⁶³⁰ Michael Kunzelman, *U.S. 90 Reveals Hard Times Left by Katrina*, THE WASHINGTON POST, May 19, 2006.

⁶³¹ Volpe, *supra* note 396, at 17.

⁶³² Dussom & McConnell, *supra* note 629.

Springs.⁶³³ The Bay St. Louis Bridge connected the cities of Bay St. Louis and Pass Christian.⁶³⁴

The environmental compliance process for both bridges was similar.⁶³⁵ According to federal administrative regulations, requests for deviations from regular procedures can be made in emergencies.⁶³⁶ Some informal procedures, such as verbal agreements, were used to expedite permitting, with FHWA's assistance.⁶³⁷ Regarding NEPA, MDOT was required to conduct an environmental assessment for the Biloxi Bay Bridge, and FHWA issued a finding of no significant impact (FONSI).⁶³⁸ The Bay St. Louis Bridge fell under a categorical exclusion.⁶³⁹

Protected species near the bridges included gulf sturgeon, sea turtles, and marine mammals. The Mississippi Sound was a critical habitat for gulf sturgeon.⁶⁴⁰ ESA emergency consultations with Fish & Wildlife and NOAA-Fisheries went smoothly due to the limiting of the scope for both projects.⁶⁴¹ NOAA-Fisheries required that fill be returned to its original location when dredging.⁶⁴² Permits were obtained from the Corps for dredge and fill in navigable waters.⁶⁴³ For the Biloxi Bay Bridge, the Corps followed emergency procedures, thus reducing public notice requirements and shrinking the permit lead time from 6 months to 6 weeks.⁶⁴⁴ Only general permits from the Corps were required for CWA Sections 402 and 404. NOAA concurred that there was no negative impact on the coast zone. Unfortunately, Katrina had destroyed most of the historic properties near both bridges, as well as the bridges themselves; thus, the SHPO concurred that the projects had no negative impact on historic properties.⁶⁴⁵

Because D-B enabling legislation had been enacted relatively recently in Mississippi, in 2004, MDOT reached out to the Florida DOT for help

with administering D-B.⁶⁴⁶ D-B allowed the integration of environmental compliance into design and construction; thus, work proceeded before all permits were obtained.⁶⁴⁷ D-B resulted in projects taking just over 2 years.⁶⁴⁸ In contrast, the sequential steps of design, bidding, and construction, characteristic of the conventional design-bid-build (D-B-B) process, were estimated at 3 to 4 years.⁶⁴⁹ D-B also offered flexibility for making changes in construction and associated changes in permits.⁶⁵⁰ However, D-B's swiftness raised concerns from some agencies that it was difficult to assess and protect wildlife.⁶⁵¹ The new Biloxi Bay Bridge was reopened to traffic on November 1, 2007, and was fully complete on April 16, 2008.⁶⁵² The new Bay St. Louis Bridge was fully reopened on January 4, 2008.⁶⁵³

5. North Dakota Floods of 2011

Despite the frequent occurrence of flooding in North Dakota, the 2011 Missouri River flood was historic by various measures. The flood began in February and continued for 10 months.⁶⁵⁴ Flooding caused the evacuation of 28 neighborhoods, notably in Minot, where over 4,000 homes and businesses and 12,000 residents were displaced.⁶⁵⁵ The Corps was forced to open the Lake Sakakawea spillway gates for the first time.⁶⁵⁶ Because of the magnitude of the disaster, the usual FEMA cost share of 75 percent was enlarged to 90 percent.⁶⁵⁷ The governor declared a statewide emergency on February 10, and a statewide flood disaster on May 10.⁶⁵⁸ The president approved a major disaster declaration on May 10 that was subsequently amended multiple times to include additional counties.

NDDOT and FHWA employed many processes for environmental compliance. A programmatic

⁶³³ Volpe, *supra* note 396, at 17.

⁶³⁴ *Bay St. Louis Bridge Reopens Last Two Lanes*, NEW ORLEANS CITYBUSINESS, Jan. 5, 2008.

⁶³⁵ Volpe, *supra* note 396, at 17.

⁶³⁶ 23 C.F.R. § 771.131 (2013).

⁶³⁷ Volpe, *supra* note 396, at 18.

⁶³⁸ *Id.* at 10.

⁶³⁹ *Id.* at 18.

⁶⁴⁰ *Id.*

⁶⁴¹ *Id.* at 8, 18.

⁶⁴² *Id.* at 18.

⁶⁴³ Volpe, *supra* note 396, at 18.

⁶⁴⁴ *Id.*

⁶⁴⁵ *Id.*

⁶⁴⁶ Dusson & McConnell, *supra* note 629.

⁶⁴⁷ *Id.*

⁶⁴⁸ *Id.*

⁶⁴⁹ *Id.*

⁶⁵⁰ Volpe, *supra* note 396, at 18.

⁶⁵¹ *Id.* at 19.

⁶⁵² *Biloxi Bay Bridge to Open Thursday*, NEW ORLEANS CITYBUSINESS, Oct. 28, 2007.

⁶⁵³ *Id.*

⁶⁵⁴ N.D. Dep't of Emergency Servs., *2011 Flood Report: Response and Recovery* 15 (2011).

⁶⁵⁵ *Id.*

⁶⁵⁶ *Id.*

⁶⁵⁷ *Id.*

⁶⁵⁸ *Id.*

agreement was finalized on March 11, 2011, between the Corps, Fish & Wildlife, FHWA, and NDDOT.⁶⁵⁹ This agreement presented streamlined processes for three categories of NEPA CE, and clarified other aspects of emergency relief such as funding eligibility requirements and timing.⁶⁶⁰ NDDOT-funded staff at the Corps and Fish & Wildlife were helpful in expediting consultations and requests from NDDOT.⁶⁶¹ On ESA, NDDOT and FHWA utilized informal consultation procedures to address the emergency, and later followed-up with formal procedures.⁶⁶² NDDOT and NDSHPO discussed multiple emergency relief projects simultaneously to save time.⁶⁶³ NDDOT used tribal monitors who represented the North Dakota Tribal Consultation Committee during meetings with NDSHPO.⁶⁶⁴ NDDOT's proactive archaeological surveys provided the current locations of archaeological sites.⁶⁶⁵ These helpful processes were employed both pre-event and post-event.

6. Crown Point Bridge Sudden Closure

The Crown Point Bridge or Lake Champlain Bridge is a 2,000-ft bridge connecting Crown Point, New York, with Chimney Point, Vermont, across the 112-mi-long Lake Champlain.⁶⁶⁶ The bridge is one of only three crossings over the lake, and is a vital economic and public safety link between the bi-state communities, as hospitals and fire departments are shared by these communities.⁶⁶⁷ Approximately 4,000 vehicles per day travel across the bridge.⁶⁶⁸ The bi-state nature of the bridge necessitated that the Vermont Agency

of Transportation (VTrans) and the New York State Department of Transportation operate as a team.⁶⁶⁹

The Crown Point Bridge was opened on August 26, 1929, and underwent major rehabilitation in 1991.⁶⁷⁰ A bi-state rehabilitation study in 2009 discovered that the bridge was in a much worse condition than had been anticipated.⁶⁷¹ The conditions were significantly worse than what had been found by a 2005 inspection.⁶⁷² The risk of catastrophic bridge failure led to the closure of the bridge on October 16, 2009, with no advance warning to the public.⁶⁷³ A tremendous public outcry called for a quick response and for the bridge to retain the same location.⁶⁷⁴ On October 20, 2009, the Vermont Secretary of Transportation declared an emergency, and on the next day, the governor of New York declared a state disaster emergency.⁶⁷⁵

The bridge environs were rich in archaeological and historic resources including the site of Native American activity dating to 5,000 B.C., several forts from the 1700s, and a pre-Revolutionary War tavern that had become a museum.⁶⁷⁶ A Section 106 programmatic agreement was executed in record time, and included protection for the site's archaeological and historic resources, as well as a commemoration of the previous bridge.⁶⁷⁷

A public advisory committee (PAC) was formed to represent the various perspectives and interests of the public.⁶⁷⁸ An intensive, 6-day public involvement process was adopted as part of a 30-day public comment period.⁶⁷⁹ In addition, 3,000 online surveys were reviewed.⁶⁸⁰ The design team reacted quickly to public input, and adjusted materials and information quickly, while sometimes working on weekends.⁶⁸¹ In fact, an extra design alternative based on public comments was devel-

⁶⁵⁹ Emergency Relief Programmatic Agreement Between the U.S. Army Corps of Eng'rs, the U.S. Fish & Wildlife Serv., the Fed. Highway Admin. N.D. Div., and N.D. Dep't of Transp. (Mar. 31, 2011) (on file with author).

⁶⁶⁰ *Id.*

⁶⁶¹ Schrader, *supra* note 455, at 11.

⁶⁶² *Id.*

⁶⁶³ *Id.*

⁶⁶⁴ *Id.*

⁶⁶⁵ *Id.*

⁶⁶⁶ Arthur Yannotti, Acting Deputy Chief Eng'r, N.Y. State Dep't of Transp., *Lake Champlain Bridge—Decision for Closure and Response to a Crisis*, Bridge Eng'g Distinguished Speaker Series at the State Univ. of N.Y. (April 18, 2011).

⁶⁶⁷ N.Y. State Dep't of Transp., *The Lake Champlain Bridge Emergency Replacement Project 3-4* (2012).

⁶⁶⁸ Scott Waldman, *Lake Champlain Bridge Set to Open*, TIMES UNION, Nov. 4, 2011.

⁶⁶⁹ Yannotti, *supra* note 666.

⁶⁷⁰ *Id.*

⁶⁷¹ *Id.*

⁶⁷² *Id.*

⁶⁷³ *Id.*

⁶⁷⁴ *Id.*

⁶⁷⁵ N.Y. State Dep't of Transp., *supra* note 667, at 4.

⁶⁷⁶ Yannotti, *supra* note 666.

⁶⁷⁷ N.Y. State Dep't of Transp., *supra* note 667, at 7.

⁶⁷⁸ Yannotti, *supra* note 666.

⁶⁷⁹ *Id.*

⁶⁸⁰ N.Y. State Dep't of Transp., *supra* note 667, at 9.

⁶⁸¹ Yannotti, *supra* note 666.

oped and ultimately selected.⁶⁸² Whereas there had been initial public outcry surrounding the bridge's sudden closure, as well as voiced passion for rehabilitating the historic bridge, robust communication with the public ultimately fostered public trust and support for a replacement bridge.⁶⁸³

Despite the fact that state emergency declarations were issued, the recovery project did not fall under federal ER because ferries were provided as temporary transportation.⁶⁸⁴ Thus, the project was required to meet typical project requirements including normal review, permitting, and contracting.⁶⁸⁵ A NEPA process for a project of similar complexity could take up to 5 years.⁶⁸⁶ To accelerate the process by using CE, the alignment of the bridge was maintained at previous levels.⁶⁸⁷ The NEPA process was completed in 4 months.⁶⁸⁸

The regional agency relationships have a long history of mutual respect and trust stemming from a lack of past permit compliance issues.⁶⁸⁹ FHWA arranged a regulatory agency summit in January 2010, during which all relevant federal and state agencies participated, including the US Coast Guard, the Corps, and Fish & Wildlife.⁶⁹⁰ At this summit, the agencies reached agreement on permitting requirements, processes, and timelines.⁶⁹¹ As a result, permits were issued to allow project bidding to 5 months following bridge closure.⁶⁹² VTrans committed to the use of an independent onsite environmental monitor who tracked erosion, sediment control, water handling, and concrete curing/dewatering.⁶⁹³ FHWA also increased its in-house construction and environmental inspections.⁶⁹⁴

Alternative contracting techniques were explored to accelerate recovery. Design-build was

dismissed because it was not allowed under law.⁶⁹⁵ A dynamic design-bid-build process was instead utilized.⁶⁹⁶ This process allowed for the overlap of linear functions such as planning, design, permitting, and construction.⁶⁹⁷ A construction contract was awarded 7.5 months following the closure of the old bridge.⁶⁹⁸ The bridge was reopened on November 7, 2011.⁶⁹⁹

7. Texas Bastrop Fires

The Bastrop County fire was the single most devastating wildfire occurring in Texas in the last decade, destroying over 1,000 homes and over 100,000 acres.⁷⁰⁰ The Bastrop County fire was only one of more than 180 fires that engulfed Texas at that time.⁷⁰¹ The conditions for fire involved extended drought followed by severe winds from Tropical Storm Lee.⁷⁰² Exacerbating the problem were the resulting floods, worsened by the loss of ground cover vegetation.⁷⁰³ The fire damaged road pavements, culverts, and landscaping.⁷⁰⁴ There was also the potential danger of fire-damaged trees collapsing on roadways.⁷⁰⁵

Some repairs were conducted on state highways using state funds, thereby not implicating federal laws and regulations.⁷⁰⁶ Two major environmental concerns associated with road and landscaping repairs included the endangered Houston Toad and culverts involving United States waters.⁷⁰⁷ Though the fires were not directly linked to Houston Toad mortality, critical habitats were located in the Bastrop region.⁷⁰⁸ Due to the Texas Department of Transportation's

⁶⁸² N.Y. State Dep't of Transp., *supra* note 667, at 14.

⁶⁸³ *Id.* at 9, 14.

⁶⁸⁴ *Id.* at 9.

⁶⁸⁵ *Id.*

⁶⁸⁶ *Id.*

⁶⁸⁷ Yannotti, *supra* note 666.

⁶⁸⁸ N.Y. State Dep't of Transp., *supra* note 667, at 9.

⁶⁸⁹ Melissa Toni, *Collaboration Success for the Crown Point Bridge Replacement Project*, THE ENVIRONMENTAL QUARTERLY, Oct. 11, 2011, at 15.

⁶⁹⁰ Yannotti, *supra* note 666.

⁶⁹¹ *Id.*

⁶⁹² Toni, *supra* note 689, at 15.

⁶⁹³ *Id.*

⁶⁹⁴ *Id.*

⁶⁹⁵ Yannotti, *supra* note 666.

⁶⁹⁶ N.Y. State Dep't of Transp., *supra* note 667, at 3-4.

⁶⁹⁷ N.Y. State Dep't of Transp., *supra* note 667, at 7.

⁶⁹⁸ Yannotti, *supra* note 666.

⁶⁹⁹ Scott Waldman, *Lake Champlain Bridge Set to Open*, TIMES UNION, Nov. 4, 2011.

⁷⁰⁰ Jim Vertuno & Michael Graczyk, *Bastrop Wildfires Destroy 1,000-Plus Homes*, ASSOCIATED PRESS, Sept. 6, 2011; Matt Peckham, *Disastrous Texas Wildfire Now Worst in State's History*, TIME NEWSFEED, Sept. 6, 2011.

⁷⁰¹ Vertuno & Graczyk, *supra* note 700.

⁷⁰² Peckham, *supra* note 700.

⁷⁰³ James Barta, *Bastrop Wildfire and Aftermath 1* (Tex. Dep't of Transp. Env. Affairs 2013).

⁷⁰⁴ *Id.*

⁷⁰⁵ *Id.*

⁷⁰⁶ *Id.*

⁷⁰⁷ *Id.*

⁷⁰⁸ *Id.*

(TxDOT) relationship with the Corps and Fish & Wildlife, as well as the urgency of the projects, the permitting and consultation processes were expedited.⁷⁰⁹ TxDOT consulted informally with Fish & Wildlife for the removal of trees.⁷¹⁰ TxDOT utilized the Corps' nationwide permit 3 (NWP-3) for repairing culverts in federal jurisdictional waters.⁷¹¹ NWP-3 authorizes repairs of structures authorized by 33 C.F.R. § 330.3, including minor deviations in a structure's configuration or filled area and minimum stream channel modifications.⁷¹² As part of the NWP-3 application, a concurrence letter was obtained from Fish & Wildlife to validate that mandatory management practices to protect the Houston Toad were followed.⁷¹³

8. Hurricane Irene and Vermont's Historic Bridges

On August 28, 2011, Hurricane Irene tore through the East Coast, including Vermont, and produced over 7 in. of precipitation.⁷¹⁴ Record levels of flooding, along with the movement of debris and scouring, caused extensive damage to transportation infrastructure, especially bridges.⁷¹⁵ Bridges were damaged principally on abutments and superstructures, but some bridges were entirely washed out.⁷¹⁶ It became critical to repair such bridges, since entire communities were cut off.⁷¹⁷ The president issued a major disaster declaration for the state of Vermont on September 1, 2011.⁷¹⁸

Damaged bridges considered for FEMA funding included many different types and classifications.⁷¹⁹ Most bridges contained vehicular traffic, although there were a few railroad and pedestrian bridges.⁷²⁰ A common theme of many of these bridges was some level of historical significance.⁷²¹ Eighteen bridges were listed on the NRHP.⁷²² Be-

cause Vermont citizens place a high value on the natural landscape, bridges had often been built to conform to the natural landscape.⁷²³ Thus, bridge design often adopted local characteristics, rather than contemporary design trends.⁷²⁴ Bridges are one of the most photographed cultural and historic icons in Vermont.⁷²⁵ Therefore, a primary environmental concern for the repair of the bridges in question was compliance with Section 106.⁷²⁶

An informal interagency agreement was developed "on-the-fly" between FEMA's Environmental and Historic Preservation Section of the Vermont Joint Field Office, VTrans Historic and Archaeological Resources Unit, and the SHPO.⁷²⁷ This agreement was based on a previous programmatic agreement that developed the Vermont Historic Bridge Program.⁷²⁸ The program developed preservation plans for several types of bridges, and was participated in by many communities.⁷²⁹ Under the Program, VTrans was the lead agency; it coordinated with FEMA, conducted archaeological surveys, and prepared determination of effect documents.⁷³⁰ VTrans's front-end work expedited FEMA's own studies and consultation with the SHPO.⁷³¹ The informal agreement utilized the same efficiencies. There exists an ongoing effort to formalize the informal procedures.⁷³²

To expedite repairs, the majority of projects consisted of in-kind repairs utilizing the existing footprint and types of materials.⁷³³ For example, a rusticated stone-colored stain was used on the pier of Rail Bridge 501 to match the granite abutments.⁷³⁴ Some bridges were listed on the NRHP, and care was taken to conform to the Secretary of the Interior's standards for reconstruction so that these bridges could remain on the NRHP.⁷³⁵ The effective cooperation among the various agencies involved, and respect for the historical signifi-

⁷⁰⁹ Barta, *supra* note 703, at 1.

⁷¹⁰ *Id.*

⁷¹¹ *Id.*

⁷¹² U.S. Army Corps of Eng'rs, *2012 Nationwide Permits, Conditions, District Engineer's Decision, Further Information, and Definitions* 4 (2012).

⁷¹³ Barta, *supra* note 703, at 1.

⁷¹⁴ Thomas et al., *supra* note 381, at 1.

⁷¹⁵ *Id.*

⁷¹⁶ *Id.* at 22.

⁷¹⁷ *Id.* at 1.

⁷¹⁸ *Id.* at 6.

⁷¹⁹ *Id.*

⁷²⁰ Thomas et al., *supra* note 381, at 6, 20.

⁷²¹ *Id.* at 6.

⁷²² *Id.* at 22, 26, 28.

⁷²³ *Id.* at 8.

⁷²⁴ *Id.* at 9.

⁷²⁵ *Id.* at 6.

⁷²⁶ Kachadoorian, *supra* note 381.

⁷²⁷ *Id.*

⁷²⁸ Thomas et al., *supra* note 381, at 6.

⁷²⁹ *Id.*

⁷³⁰ *Id.* at 6–7.

⁷³¹ *Id.* at 7.

⁷³² Kachadoorian, *supra* note 381.

⁷³³ Thomas et al., *supra* note 381, at 27.

⁷³⁴ *Id.* at 37.

⁷³⁵ *Id.* at 29.

cance of Vermont's bridges, resulted in the successful repair and preservation of 189 bridges.⁷³⁶

9. The Joplin Missouri Tornado

On May 22, 2011, a three-quarter-mile-wide EF-5 tornado tore through Joplin, Missouri, destroying almost a third of the city, causing 161 fatalities and 1,371 injuries, and damaging over 2,000 buildings, including a major regional hospital.⁷³⁷ The Joplin tornado was the single deadliest tornado in the United States since 1947.⁷³⁸ The governor of Missouri issued several executive orders as a result of the tornado and its associated storms, declaring and extending a state of emergency.⁷³⁹ The president also issued a major disaster declaration covering several Missouri counties, which was later amended to include the Joplin event.⁷⁴⁰

One overwhelming aspect of the Joplin tornado was the disposal of waste and management of debris. The Missouri DNR coordinated early with EPA on hazardous waste management.⁷⁴¹ This was also a rare occasion in which MoDOT worked directly with EPA in the aftermath of an emergency.⁷⁴² The DNR worked with the State Emergency Management Agency (SEMA), establishing several streamlined processes for the clearing of sites for critical infrastructure and obtaining permits to support debris management for recovery.⁷⁴³ Such processes waived certain requirements for the segregation of multiple waste streams and allowed open burning.⁷⁴⁴

The Joplin case also illustrates an occasion on which FEMA ceded the lead role to FHWA on a non-federal aid facility in order to expedite local recovery. A specific example was the deployment of traffic signals and temporary trailers near a

hospital.⁷⁴⁵ Though the project was funded by FEMA, FHWA took the lead so that an existing NEPA programmatic agreement with MODOT could be used to expedite the approvals.⁷⁴⁶

One reported reason for the successful recovery in Joplin was good working relationships among all agencies involved, such as the Missouri DNR, MoDOT, FHWA, and EPA's Region VII.⁷⁴⁷ For example, MoDOT recognized that they were not the lead agency and willingly fulfilled their team role by responding to the directions given by the emergency commander.⁷⁴⁸ Thus MoDOT specialized in their role in managing the transportation infrastructure, thus freeing up law enforcement from traffic control and other DOT duties.⁷⁴⁹ Strong relationships were developed over time at regular emergency planning meetings and during previous incidents, such as at CERCLA-type incidents.⁷⁵⁰ The relationships also resulted from the continuity in staff of the various agencies.⁷⁵¹ For example, the DNR's chief of emergency response worked for 22 years at DNR, and half of DNR's emergency response staff had tenures of at least 10 years.⁷⁵²

10. The 2013 Colorado Floods

From September 11 to September 16, 2013, catastrophic floods in Colorado caused the closure of numerous highways and bridges, cutting off communities throughout the state.⁷⁵³ The flooding drastically affected rivers, altering courses and causing waters to move around bridges and over existing roads.⁷⁵⁴ More than 200 mi of roadway and 50 bridges were destroyed or damaged.⁷⁵⁵ For example, sections of Highways 7 and 287 collapsed, and sections of I-25 and I-70 were closed

⁷³⁶ *Id.* at 38.

⁷³⁷ A. G. Sulzberger & Brian Stelter, *A Rush to Protect Patients, Then Bloody Chaos*, N.Y. TIMES, May 23, 2011, at A1; Fed. Emergency Mgmt. Agency, *The Response to the 2011 Joplin, Missouri, Tornado Lessons Learned Study 3* (Dec. 20, 2011).

⁷³⁸ *Id.*

⁷³⁹ Mo. Exec. Order No. 11-10 (May 24, 2011).

⁷⁴⁰ Fed. Emergency Mgmt. Agency, FEMA-DR-1980 (May 23, 2011).

⁷⁴¹ Mo. Dep't of Natural Res., *Disaster Coordination Efforts Following May 22, 2011 Joplin Tornado*, <http://www.dnr.mo.gov/disaster2011joplin.htm> (last visited Feb. 6, 2014).

⁷⁴² Unruh, *supra* note 418.

⁷⁴³ Mo. Dep't of Natural Res., *supra* note 741.

⁷⁴⁴ Allen, *supra* note 535.

⁷⁴⁵ Unruh, *supra* note 418.

⁷⁴⁶ *Id.*

⁷⁴⁷ Allen, *supra* note 535.

⁷⁴⁸ Salisbury, *supra* note 494.

⁷⁴⁹ *Id.*

⁷⁵⁰ Allen, *supra* note 535.

⁷⁵¹ *Id.*

⁷⁵² *Id.*

⁷⁵³ Press Release, Fed. Highway Admin., U.S. Transportation Secretary Foxx Announces \$5 Million in "Quick Release" Emergency Relief Funds for Colorado (Sept. 13, 2013) (on file with author).

⁷⁵⁴ Telephone Interview with Rodney Vaughn, Lead Program Specialist, Fed. Highway Admin. (Nov. 27, 2013).

⁷⁵⁵ Fed. Highway Admin., *NEPA Process for the September 2013 Flood Event 1* (Nov. 14, 2013).

to traffic.⁷⁵⁶ On September 15, the president declared the floods a major disaster and mobilized FEMA for emergency recovery operations.⁷⁵⁷

Shortly after the floods, relevant agencies such as the Colorado DOT (CDOT), FHWA, SHPO, the Corps, and Fish & Wildlife worked to clarify existing understandings and agreements.⁷⁵⁸ Good interagency working relationships existed based on regular coordination meetings and previous ad hoc projects.⁷⁵⁹ Emergency consultation processes were adopted. CDOT consulted with Fish & Wildlife, implementing recommended conservation measures and documenting project impacts after-the-fact.⁷⁶⁰ The Preble's Meadow Jumping Mouse, Ute Ladies'-Tresses Orchid, and Colorado Butterfly Plant comprised species that were potentially affected.⁷⁶¹ A programmatic agreement between the Advisory Council, SHPO, CDOT, and FHWA was utilized.⁷⁶² This agreement contained special procedures for emergency situations which allowed CDOT to conduct emergency repairs prior to completing Section 106 reviews.⁷⁶³ The Advisory Council and SHPO also extended the time frame for emergency repairs beyond the normal 30 days.⁷⁶⁴ The Corps nationwide permits 3 and 14 were used to facilitate recovery affecting U.S. waters.⁷⁶⁵ Nationwide permit 3 concerns the repair, rehabilitation, or replacement of structure or fill where only minor deviations from the original exist.⁷⁶⁶ Nationwide permit 14 concerns the construction, expansion, modification, or improvement of linear transportation projects, and temporary structures, fills, and work.⁷⁶⁷

FHWA rules provide that a CE applies for a disaster or emergency recovery under certain conditions, such as when repairs occur within the existing right-of-way and substantially conform to

preexisting design, function, and location.⁷⁶⁸ This classification applies to both emergency and permanent repairs.⁷⁶⁹ Whenever possible, recovery projects utilized the existing alignment in order to attain CE classification.⁷⁷⁰ A CE programmatic agreement between CDOT and FHWA was utilized when there were only minor degrees of right-of-way changes from the original design.⁷⁷¹ Under this agreement, eligible projects were deemed approved by FHWA, and did not require further FHWA NEPA approval or FHWA's signature on CDOT's CE form.⁷⁷² When the river changed course, however, a different alignment was necessary, thus requiring normal environmental processes.⁷⁷³ In some cases, permanent work was performed alongside emergency work, thus reducing follow-on permanent repairs.⁷⁷⁴ Such works were undertaken as emergency actions, and utilized streamlined emergency consultation processes.⁷⁷⁵ The category of work or the cost share reimbursement was unchanged for these hybrid projects.⁷⁷⁶ For permanent repairs that required FHWA approval, similar projects were combined, and a batch approval process was utilized to streamline the process.⁷⁷⁷ By October 23, 77 percent of the damaged roads were reopened.⁷⁷⁸ Permanent recovery is ongoing.

F. Web Survey

For this legal digest, a national Web survey complemented indepth interviews and analysis by identifying national trends. The survey was developed from a review of best practices for emergency environmental compliance. The Web survey was sent to 164 environmental experts in agencies at various levels of government, including state and federal agencies. These agencies represented

⁷⁵⁶ *Id.*

⁷⁵⁷ Press release, The White House, President Obama Signs Colorado Disaster Declaration (Sept. 15, 2013) (on file with author).

⁷⁵⁸ Vaughn, *supra* note 754.

⁷⁵⁹ *Id.*

⁷⁶⁰ Fed. Highway Admin., *supra* note 755, at 2.

⁷⁶¹ *Id.* at 2.

⁷⁶² *Id.* at 2–3.

⁷⁶³ *Id.*

⁷⁶⁴ *Id.*

⁷⁶⁵ Vaughn, *supra* note 754.

⁷⁶⁶ U.S. Army Corps of Eng'rs, *2012 Nationwide Permits, Conditions, District Engineer's Decision, Further Information, and Definitions* 4 (2012), at 4–5.

⁷⁶⁷ *Id.* at 9–10.

⁷⁶⁸ 23 C.F.R. § 771.117(c)(9) (2013).

⁷⁶⁹ *Id.*

⁷⁷⁰ Vaughn, *supra* note 754.

⁷⁷¹ *Id.*

⁷⁷² Programmatic Agreement for the Review and Approval of Certain NEPA Categorically Excluded Transp. Projects Between the Fed. Highway Admin., Colo. Division, and the Colo. Dep't of Transp. 1 (Aug. 4, 2011).

⁷⁷³ Vaughn, *supra* note 754.

⁷⁷⁴ Fed. Highway Admin., *supra* note 755, at 1–2.

⁷⁷⁵ *Id.*

⁷⁷⁶ *Id.*

⁷⁷⁷ *Id.* at 3.

⁷⁷⁸ Press Release, Colo. Office of Emergency Mgmt., Gov. Hickenlooper Announces Flood Recovery Progress, Additional Counties Eligible for FEMA Assistance (Oct. 23, 2013) (on file with author).

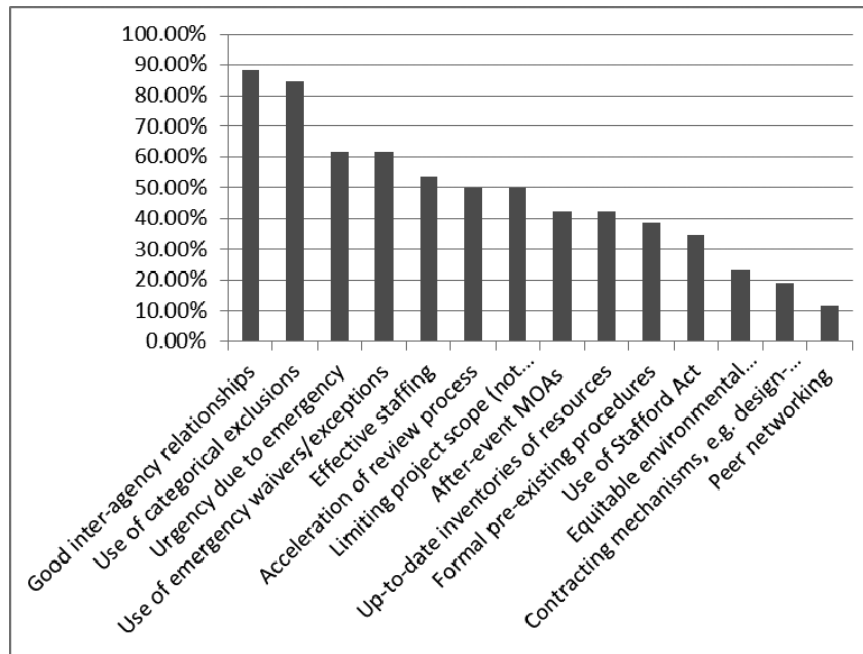
the various roles in environmental compliance: lead, applicant, and cooperating. The agencies covered all 50 states, as well as the District of Columbia. The survey included demographic and organizational information, as well as an opportunity for respondents to describe examples of successful emergency compliance.

The answers to the question, “Reasons for successful environmental compliance/permitting in emergencies,” are shown in Figure 1. Figure 1 shows that the majority of respondents selected the practices of good interagency relationships, the use of categorical exclusions, urgency due to the emergency, waivers and exceptions, and effective staffing. The top two practices were far and away the most popular, being selected by over 85 percent of the respondents. These survey results were consistent with the perspectives presented during interviews. Many interviewees discussed the importance of strong interagency relationships and the building of trust over time.⁷⁷⁹ Many also mentioned the manner in which repair projects were scoped so as to fall under NEPA CE.⁷⁸⁰ One surprising result was that the use of formal pre-existing procedures, such as programmatic agreements, was not selected by many respondents. This was surprising, since most interviewees mentioned the benefits of such agreements and federal agencies and national organizations promote their use. One possible explanation is that some respondents chose the answer, “use of categorical exclusions,” even when there were programmatic agreements involved with the review of CE.

⁷⁷⁹ Allen, *supra* note 535; Weaver, *supra* note 444; Johnson, *supra* note 361; Ketcham, *supra* note 474.

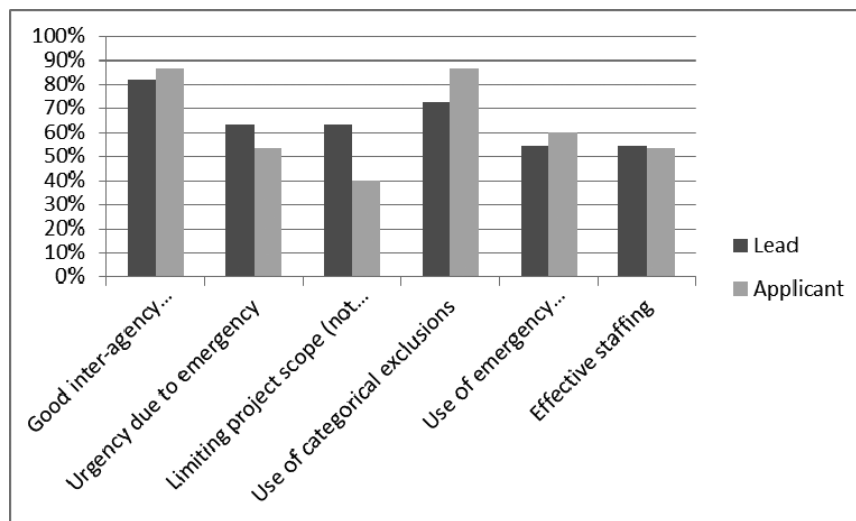
⁷⁸⁰ Weaver, *supra* note 444; Telephone Interview with Kevin Moody, Ecologist, Fed. Highway Admin. (Nov. 27, 2013); Unruh, *supra* note 418.

Figure 1. Reasons for successful emergency environmental compliance.



Cross tabulation is the derivation of frequency of response by respondent subcategories. Figure 2 displays the cross tabulation of the top reasons for successful environmental compliance by agency role. Since few responses were received for the cooperating agency category, only lead and applicant agency responses are shown in Figure 2. The responses between lead and applicant agencies appeared to be similar. The top two selections of good interagency relationships and the use of categorical exclusions were far and away the most popular choices. The largest difference was a 24 percent greater response from lead agencies regarding the selection of limiting project scope.

Figure 2. Cross tabulation of top reasons for success.



Though the focus of this legal digest is on reasons for successful environmental compliance, a few interesting pieces of information were also gleaned from the survey in regards to challenges to compliance. Question 5 inquired on the greatest challenge to emergency environmental compliance. The most frequent responses included lack of clarity on environmental requirements (62 percent), delays in obtaining permits (52 percent), and lack of coordination among agencies (48 percent). Question 7 inquired about laws and regulations with which compliance during emergencies is difficult. Only the following two choices were selected by a majority of respondents: park lands (e.g., Section 4f) and wildlife (e.g., ESA). Both were selected by approximately 70 percent of respondents.

In summary, the Web survey was intended to identify national trends, and to confirm issues that arose during the detailed interviews conducted for this legal digest. Due to limited resources, detailed interviews were not conducted for every state and agency. The survey results confirmed that the best practices conveyed during the conducted interviews or identified in the literature were indeed recognized and utilized by many agencies and states throughout the nation.

IV. IDENTIFICATION OF TECHNIQUES AND STRATEGIES TO EXPEDITE RECOVERY

This section identifies several best practices for expediting recovery while complying with existing environmental laws and regulations. The section does not comprise a comprehensive list of all available techniques and strategies; rather, it includes some of the most popular best practices. The popularity of these practices was confirmed by the national survey described in Section III.F of this digest. This list is not intended to be used as a comparative study between states, as each state is faced with different quantities and types of environmental resources, types of disasters, state environmental statutes, and public attitudes toward environmental resources.

A. Pre-Disaster

Planning for emergency environmental compliance provides many benefits. It results in the ability to implement actions, policies, and processes that were developed ahead of time to influence emergency recovery, and it contributes to a unity of effort.⁷⁸¹ Two critical pre-disaster issues that support the various techniques and strategies for

expediting recovery include agency relationships and preexisting procedures. The techniques and strategies for expediting recovery are tied closely to one another. Though each technique is covered in a separate section in this report, these techniques often work in conjunction with one another. For example, the section on building agency relationships is tied to formal pre-existing procedures, since formal agreements do not usually materialize when good working relationships are absent.

1. Relationships with Other Agencies

a. Establishment of Relationships and Trust with Other Agencies.—The establishment of relationships and trust with other agencies is a critical element for expediting recovery. This issue repeatedly surfaced in interviews, in written accounts of disaster relief, and in the results of the national survey conducted for this digest.⁷⁸² When trust exists, agency staff members are more comfortable with using timesaving informal communications in lieu of formal agreements and written correspondence.⁷⁸³ Written agreements typically require a significant investment of time and effort to be negotiated and finalized. Positive preexisting relationships may help to avoid the hardline interpretations of laws and regulations that can result from a lack of trust and the fear of potential abuses of process.⁷⁸⁴ Such relationships lessen the potential for territoriality, resulting in better outcomes for the public at large. The National Response Framework (NRF) uses the term “engaged partnership” to describe one of its five key principles of operation for national response.⁷⁸⁵ The NRF describes characteristics of the engaged partnership concept as having shared goals, aligning capabilities, planning together in times of calm, and responding together effectively in times of need.⁷⁸⁶

Under the theme of agency relationships, the Federal Emergency Management Agency (FEMA) emphasizes the importance of “unity of effort through unified command.”⁷⁸⁷ This means agencies have a clear understanding and respect for

⁷⁸² Allen, *supra* note 535; Weaver, *supra* note 444; Johnson, *supra* note 361; Ketcham, *supra* note 429; Volpe, *supra* note 333, at 10, 21; Schmutzler, *supra* note 391.

⁷⁸³ Volpe, *supra* note 396, at 10.

⁷⁸⁴ Johnson, *supra* note 361.

⁷⁸⁵ Homeland Security, *supra* note 339, at 8.

⁷⁸⁶ *Id.* at 9.

⁷⁸⁷ *Id.* at 10.

⁷⁸¹ Homeland Security, *supra* note 339, at 71.

the roles and responsibilities of each agency.⁷⁸⁸ The elements of unified command include a single set of objectives, using a collective approach, improving coordination, understanding joint priorities and restrictions, respect for an agency's legal authority, and optimizing joint efforts. Each of these elements require that strong relationships have already been developed.

It is important to establish strong interagency relationships at both the working level and the executive level.⁷⁸⁹ The executive level sets the agency tone for interagency cooperation. Good higher-level relationships can help to resolve lower-level disputes and avoid straining relationships. For example, the good interpersonal relationship between the directors of the New York State Department of Transportation and the Vermont Agency of Transportation helped to resolve staff disagreements quickly over the telephone on the Crown Point Bridge reconstruction.⁷⁹⁰

The American Association of State Highway and Transportation Officials (AASHTO) offers guidance in the form of helpful steps for building and maintaining relationships with other agencies at all levels.⁷⁹¹ Although many of these steps are intuitive, they form a good checklist of practical actions. One step is to avoid trust killers of commitment and promise failures and the denial of mistakes.⁷⁹² A second step is to build agency qualifications and expertise, thus demonstrating an ability to take on additional tasks. One illustration of this step is to hire a staff that is highly qualified in particular environmental areas, and to operate a diverse staff with expertise in all relevant environmental areas. Another method is to demonstrate commitment to environmental stewardship by considering environmental aspects equitably from the onset of any process, instead of at the backend.⁷⁹³ One example is the inclusion of environmental compliance, monitoring,

and reporting protocols within an agency.⁷⁹⁴ Since local communities are typically limited in terms of their staff expertise, it is important that state agencies assist in developing a more environmentally aware local culture. An agency's use of a proactive approach demonstrates a commitment to long-term environmental stewardship. Such an approach anticipates hazards and decreases vulnerability to disasters and cascade failures.⁷⁹⁵ Agency expertise can also be improved technologically, to the betterment of all sister agencies. For example, the Florida Environmental Screening Tool allows for the quick identification of environmental resources, and has helped to improve relationships among agencies.⁷⁹⁶

A third step in building and maintaining interagency relationships involves careful communication between agencies. One aspect of this step is the expression of appreciation, both formally and informally—for example, a written thank you letter to agency staff and the staff supervisor. Conversely, this step also involves clearly explaining and resolving any problems to ensure no lingering miscommunication exists. Such miscommunication can build suspicion and erode trust. Another step is for agencies to develop a better understanding of other agencies. One way to achieve this goal is to participate in staff exchanges, or to fund or cofund agency staff positions. For example, the Minnesota Department of Transportation funds and houses a staff member who is technically a Minnesota Department of Natural Resources employee; this staff member is frequently involved in disaster and emergency management situations, and has established a process to ensure that DNR permits are issued in very short order.⁷⁹⁷

A final step is the creation of opportunities for agency staff to meet and develop professional relationships. The best way to promote this step is to create and encourage regular opportunities for agency interaction.⁷⁹⁸ Relationships often develop naturally due to specific long-term projects or general project development.⁷⁹⁹ For such projects, face-to-face meetings are encouraged in lieu of telephone and email correspondence. Site visits and field trips provide opportunities for staff to

⁷⁸⁸ Volpe, *supra* note 396, at 17.

⁷⁸⁹ Johnson, *supra* note 361.

⁷⁹⁰ N.Y. State Dep't of Transp., *supra* note 667, at 10, 16.

⁷⁹¹ Am. Ass'n of State Highway & Transp. Officials, Center for Environmental Excellence, *How to Go About Building Trust*, http://environment.transportation.org/documents/programmatic_agreement_toolkit/trust.html (last visited May 27, 2013).

⁷⁹² *Id.*

⁷⁹³ Telephone Interview with Mark Eberlein, Regional 10 Evtl. Officer, Federal Emergency Mgmt. Agency (Apr. 1, 2013).

⁷⁹⁴ Am. Ass'n of State Highway & Transp. Officials, *supra* note 791.

⁷⁹⁵ Moody, *supra* note 780.

⁷⁹⁶ Kendall & DeTizio, *supra* note 484, at 7.

⁷⁹⁷ Clarkowski, *supra* note 398.

⁷⁹⁸ Volpe, *supra* note 396, at 4.

⁷⁹⁹ Johnson, *supra* note 361.

spend meaningful time interacting with one another.⁸⁰⁰ Relationships also arise as a result of participation in regular regional or local emergency planning meetings such as regional emergency transportation coordination, homeland security, wetlands mitigation, floodplains, or hazard management, as well as collaborating at the ground level in the case of disasters and on post-incident reviews.⁸⁰¹ An informal method of relationship building includes encouraging staff to participate in professional environmental organizations to facilitate the development of relationships outside of specific projects or issues.⁸⁰² Examples of environmental organizations include coalitions for the environment, conservation groups, and professional engineering organizations. The sponsorship of environmental workshops, seminars, and conferences can further foster staff interaction.⁸⁰³ The larger the organization, the more effort that may be required in order to build interagency relationships, since opportunities for personal interaction could potentially decrease with the size of the agency.⁸⁰⁴

The Role of Management

One theme that surfaced during multiple interviews of department of transportation (DOT) staff was the importance of managerial leadership towards building strong interagency relationships.⁸⁰⁵ Management sets the tone for the manner in which agencies relate to one another.⁸⁰⁶ In practice, management is responsible for approving resources, including staff time, that will facilitate the development of long-term relationships and efforts, such as a programmatic agreement development. Interagency relationships suffer when members of the management do not expend resources to develop relationships.

When strong high-level relationships exist, interagency disagreements at the working level can be elevated and resolved at the higher levels. A good example of high-level cooperation is the bi-state Crown Point Bridge reconstruction. The directors of NYSDOT and VTrans worked on a one-on-one basis, and often helped to resolve disagreements between their staff by speaking to each other over the telephone.⁸⁰⁷ Another example of effective high level interaction includes the circle meetings that were conducted by senior agency representatives at the riverbank of the I-40 bridge.⁸⁰⁸ These senior representatives had the authority to make decisions at the project site.⁸⁰⁹

Conflict Resolution—Neutral Facilitator—Collaborative Problem Solving

In some situations, the use of a facilitator can provide a fresh perspective, clarify misunderstandings, and promote collaborative problem solving. One common facilitator is the Federal Highway Administration's (FHWA) Environmental Technical Service (ETS).⁸¹⁰ Because FHWA has in-built relationships with state DOTs, it has a better starting point to address environmental issues. Some FHWA staff view their role as that of interpreter, realizing that different agencies can speak different agency "languages" when dealing with environmental issues.⁸¹¹ FHWA can act as an intermediary between federal and state agencies, or between federal agencies and contractors. For example, FHWA has, in the past, facilitated discussions between the Corps and the Pennsylvania Department of Transportation (PENNDOT) at a wetlands contraction site.⁸¹²

Regarding interagency disagreements over NEPA, the CEQ might take on the role of facilitator and mediator between agencies.⁸¹³ Any federal agency may refer a disagreement over a major federal action to CEQ.⁸¹⁴ CEQ may mediate the

⁸⁰⁰ Volpe, *supra* note 396, at 10.

⁸⁰¹ Allen, *supra* note 535; Johnson, *supra* note 361; Unruh, *supra* note 418; Brooks, *supra* note 425; Meinkoth, *supra* note 434; Schmutzler, *supra* note 391.

⁸⁰² Brooks, *supra* note 425.

⁸⁰³ *Id.*

⁸⁰⁴ *Id.*

⁸⁰⁵ Unruh, *supra* note 418; Johnson, *supra* note 361; Weaver, *supra* note 444.

⁸⁰⁶ Am. Ass'n of State Highway & Transp. Officials, Center for Environmental Excellence, *Principles of Developing a PA*, http://environment.transportation.org/documents/programmatic_agreement_toolkit/developing.html (last visited May 27, 2013).

⁸⁰⁷ N.Y. State Dep't of Transp., *supra* note 667, at 10, 16.

⁸⁰⁸ Volpe, *supra* note 396, at 20.

⁸⁰⁹ *Id.*

⁸¹⁰ Johnson, *supra* note 361; Fed. Highway Admin., *Environmental Review Toolkit: Conflict Resolution*, <http://environment.fhwa.dot.gov/strmlng/es2conflict.asp> (last visited Jan. 14, 2014).

⁸¹¹ Johnson, *supra* note 361.

⁸¹² *Id.*

⁸¹³ 42 U.S.C. § 4344(3) (2000).

⁸¹⁴ 40 C.F.R. § 1504 (2014).

dispute, ask the agencies to further negotiate, hold public meetings and hearings to obtain more information, or submit to the president for action.⁸¹⁵

Another example of a dispute resolution process is that adopted by the Florida Department of Transportation's (FDOT) Efficient Transportation Decision Making (ETDM).⁸¹⁶ ETDM outlines a clear progression through which dispute resolution is elevated.⁸¹⁷ The lowest level of dispute resolution occurs at the Environmental Technical Advisory Team (ETAT) level.⁸¹⁸ ETAT is comprised of representatives from the applicable Metropolitan Planning Organization or Tribal Planning Organization (MPO/TPO), Native American Tribes, and state and federal agencies.⁸¹⁹ The next level is the locally responsible agency head working with FDOT's district secretary.⁸²⁰ A white paper is generated and submitted as part of the local resolution. The dispute can be further elevated to the state level, involving statewide agency heads and, ultimately, the governor.⁸²¹ Federal processes may be involved when state processes are unsuccessful.

b. Peer Networking with Counterparts from Other States.—Though each state is unique in its treasury of environmental resources, public attitudes, state laws, and typical emergencies, networking with peers from other states can sometimes reveal ideas and practices that could be implemented locally. A primary motivation behind the publication and dissemination of the current legal digest is to encourage the adoption of best practices used by other agencies. For example, the Oregon DOT consulted with colleagues from Texas for advice surrounding the 2002 I-40 bridge reconstruction and debris removal.⁸²² Likewise, MnDOT sought out their Oregon DOT colleagues for recommendations concerning the I-

35W bridge.⁸²³ In terms of contracting experience, the Mississippi DOT reached out to the Florida DOT for assistance administering design-build contracts for reconstructing the US-90 Biloxi Bay and Bay St. Louis bridges.⁸²⁴ MoDOT often networks with the neighboring states of Iowa and Nebraska, since those states face similar environmental issues.⁸²⁵

2. Staffing

a. Shared Staff.—The funding of environmental resource agency positions is one method of improving interagency coordination. A “shared staff member” helps to bridge gaps between agencies by being embedded in another agency and thereby experiencing another agency's culture, priorities, and challenges. Concurrently, the staff member also helps the adopted agency to consider changes that could lead to a closer working relationship.

The practice of funding a shared staff member is currently employed in several states. For example, MnDOT funds a DNR employee who resides in the MnDOT office and works exclusively on MnDOT projects.⁸²⁶ North Dakota DOT funds one position at the Corps, and half of a position at Fish & Wildlife.⁸²⁷ Oklahoma DOT funds a Corps manager to oversee ODOT regulatory permit applications for transportation projects.⁸²⁸ Arizona, North Carolina, and Ohio also maintain similar environmental agencies positions funded by their DOTs.⁸²⁹

b. Environmental Team Composition: Continuity and Consistency.—The development of strong interagency relationships is closely tied to the strength and continuity of agency staffing. An agency with frequent turnover at various levels of its environmental staffing faces a much greater challenge in building and maintaining interagency relationships. In addition, the lack of a critical mass in staffing results in a loss of institutional knowledge and the unnecessary reduplication of previous efforts. The importance of staffing

⁸¹⁵ U.S. Dep't of Transp., U.S. Army Corps of Engs., U.S. Dep't of Interior, U.S. Env. Protection Agency, U.S. Dep't of Commerce, Advisory Council for Historic Pres., and U.S. Dep't of Agric., Environmental Streamlining National Memorandum of Understanding (July, 1999) [hereinafter National MOU].

⁸¹⁶ Fla. Dep't of Transp, *Efficient Transportation Decision Making Overview* 8 (2006).

⁸¹⁷ *Id.* at 8-9.

⁸¹⁸ *Id.* at 8-9.

⁸¹⁹ *Id.* at 1-1.

⁸²⁰ *Id.* at 8-9.

⁸²¹ *Id.* at 8-9.

⁸²² Volpe, *supra* note 396, at 11.

⁸²³ *Id.*

⁸²⁴ *Id.* at 19.

⁸²⁵ Unruh, *supra* note 418.

⁸²⁶ Clarkowski, *supra* note 398.

⁸²⁷ Schrader, *supra* note 455, at 11.

⁸²⁸ Press Release, Nate Herring, Corps, Oklahoma Dep't of Transp. Sign Agreement (Oct. 19, 2012) (on file with author).

⁸²⁹ Am. Assoc. of Highway and Transp. Officials, *Primer on Contracting for the Twenty-First Century* 17 (2006).

continuity surfaced in multiple interviews.⁸³⁰ FHWA staff experience indicated that states with strong environmental staff perform much better during emergencies.⁸³¹ The interviews with state-level professionals reflected a similar sentiment. State agencies also perform more efficiently during emergencies when sister agencies possess continuity in staffing.⁸³²

FEMA identified a main challenge to effective response as the high turnover of government officials who are responsible for emergency response.⁸³³ Such turnover may occur at all levels of government, from elected or appointed officials, to career administrators, to staff members who perform ground-level work during times of emergency response. As suggested by FHWA staff members and the NRF, it is essential for agencies to maintain a critical core in order to also maintain continuity in their response capability.⁸³⁴ One Corps staff indicated that it takes between 5 to 10 years for a person to develop good relationships with other agencies, thus frequent turnovers disrupt the relationships building process.⁸³⁵

Employee turnover is one area of industrial and organizational psychology that has received much scholarly attention.⁸³⁶ Despite being an older reference, Cotton and Tuttle published a useful article on the subject of staff turnover using a meta-analytical review of over 120 studies.⁸³⁷ Meta-analysis is a statistical method for quantifying research results across multiple independent studies.⁸³⁸ Some of the statistically significant correlates of employment turnover that are relevant to this legal digest included external factors such as the perception of job alternatives, and work-related factors such as pay, job satisfac-

tion, satisfaction with turnover, organizational commitment, and role clarity.⁸³⁹

The common saying that “employees leave supervisors, not companies” illustrates the importance of management and leadership in transportation agencies.⁸⁴⁰ Several interviewees expressed the notion that strong environmental leadership helps to retain employees, while the opposite results in high employee turnover.⁸⁴¹ Another organizational issue is role clarity among agency environmental staff. For example, in Oregon, environmental stewardship is advocated throughout the Oregon DOT’s structure; thus, there exists unity in goal and purpose between the environmental compliance staff and the rest of the agency.⁸⁴²

Some correlates of turnover are difficult to influence, or may be completely out of an agency’s control; one of these relates to the growth rate of the region and the availability of job alternatives. Some interviewees have commented that states with larger metropolitan regions or areas of rapid growth have witnessed greater turnover within their environmental staff.⁸⁴³ In larger communities, agencies could perhaps offer incentives for staff retention, since the process of retraining and the loss of institutional knowledge and inter-agency relationships resulting from staff turnover could be costly to an agency.

3. Formal Pre-Existing Procedures Established with Other Agencies

a. Memorandum of Agreement (MOA) and Programmatic Agreements.—

Preliminary Matters and Definitions

It is important to differentiate between two types of memoranda employed in interagency coordination. A primary difference involves whether a memorandum is merely a memorialization of discussions or is intended to be a binding agreement.⁸⁴⁴ A memorandum of understanding (MOU)

⁸³⁰ Weaver, *supra* note 444; Johnson, *supra* note 361; Allen, *supra* note 535; Unruh, *supra* note 352; Brooks, *supra* note 425; Meinkoth, *supra* note 434; Brown, *supra* note 441.

⁸³¹ Johnson, *supra* note 361.

⁸³² Weaver, *supra* note 444; Allen, *supra* note 535; Unruh, *supra* note 418.

⁸³³ Homeland Security, *supra* note 339, at 2.

⁸³⁴ Homeland Security, *supra* note 339, at 22; Johnson, *supra* note 361; Moody, *supra* note 780.

⁸³⁵ Brown, *supra* note 441.

⁸³⁶ J. Cotton & J. Tuttle, *Employee Turnover: A Meta-Analysis and Review with Implications for Research*, ACAD. OF MGMT. REVIEW, Vol. 11, No. 1, 55, 55 (1986).

⁸³⁷ *Id.*

⁸³⁸ M. Egger et al., *Meta-Analysis: Principles and Procedures*, BRITISH MEDICAL J. Vol. 315, No. 7121, 1533, 1533 (1997).

⁸³⁹ Cotton & Tuttle, *supra* note 836, at 60.

⁸⁴⁰ D. ALLEN & P. BRYANT, *MANAGING EMPLOYEE TURNOVER: DISPELLING MYTHS AND FOSTERING EVIDENCE-BASED RETENTION STRATEGIES* 89 (Business Expert Press 2012).

⁸⁴¹ Weaver, *supra* note 444; Unruh, *supra* note 418.

⁸⁴² Weaver, *supra* note 444.

⁸⁴³ *Id.*; Unruh, *supra* note 418; Meinkoth, *supra* note 434.

⁸⁴⁴ *Bridgeview Development Corp. v. Hooda Realty Inc.*, 145 A.D. 2d 457, 457 (1988).

simply defines a general area of understanding and states common goals, while a memorandum of agreement (MOA) is legally binding, and could commit an agency to a transfer of funds.⁸⁴⁵ Thus, the emphasis of this legal digest is on the more formal MOA, but a MOU can also be useful in expediting the environmental compliance process.

MOAs are utilized when the effects of an undertaking are known, while programmatic agreements (PAs) are utilized when the effects are not fully known.⁸⁴⁶ The Transportation Equity Act for the 21st Century transportation reauthorization bill included an environmental streamlining section, Section 1309.⁸⁴⁷ Section 1309 encourages an early, coordinated review process which can be documented via a memorandum of understanding among the affected agencies. A national memorandum of understanding was approved by seven agencies in July, 1999.⁸⁴⁸ These agencies included the USDOT, the Corps, the U.S. Department of the Interior, EPA, the U.S. Department of Commerce, the American Council on Historic Preservation, and the U.S. Department of Agriculture. This memorandum encourages the use of programmatic agreements and memoranda of understanding for the reduction of project delays.

Every Day Counts is an FHWA initiative launched in 2010 that seeks to shorten project delivery timelines through the use of innovative processes and technology.⁸⁴⁹ One of these innovative processes is to expand the use of PA. The FHWA desires to facilitate the use of PA among states, locally, at the industry level, and among the general public. In states that are unfamiliar with PAs, FHWA is even willing to take the lead in PA development.⁸⁵⁰ The FHWA Shortening Pro-

ject Delivery Toolkit includes a specific section on expanding the use of PA.⁸⁵¹ A PA can be used in many environmental areas, and encompass different types of projects, such as the temporary staging of debris in parks or the delegation of CE review.⁸⁵²

AASHTO is a nonprofit organization that represents the DOTs of the United States.⁸⁵³ Membership is composed of the heads of state DOTs.⁸⁵⁴ AASHTO's efforts include educating the public and legislators, coordinating between DOTs and the Federal Government, setting national transportation standards, and providing technical assistance to state DOTs.⁸⁵⁵ In providing technical assistance in the environmental arena, AASHTO has established the Center for Environmental Excellence. The goals of this center are to champion environmental stewardship and promote innovative methods for streamlining the environmental process in transportation.⁸⁵⁶ One resource produced by this center is the Programmatic Agreement Toolkit.⁸⁵⁷ This Toolkit describes the principles behind PAs, the steps for developing agreements, drafting guidance, and a library of actual agreements. The Toolkit's developer, the Statistical Research Incorporated (SRI) Foundation, is a historical preservation foundation; thus,

⁸⁴⁵ U.S. Army Corps of Engineers, Natural Resources Management Gateway, Memoranda of Understanding/Agreement, available at <http://corpslakes.usace.army.mil/partners/moumoa.cfm> (last visited May 26, 2013).

⁸⁴⁶ Am. Ass'n of State Highway & Transp. Officials, Center for Environmental Excellence, *What is a Programmatic Agreement?*, http://environment.transportation.org/documents/programmatic_agreement_toolkit/WhatIsPA.html (last visited May 26, 2013).

⁸⁴⁷ TEA-21, Pub. L. No. 105-178 (1998).

⁸⁴⁸ National MOU, *supra* note 813.

⁸⁴⁹ Fed. Highway Admin., *Every Day Counts, About Every Day Counts*, available at <http://www.fhwa.dot.gov/everydaycounts/about/> (last visited May 30, 2013).

⁸⁵⁰ Fed. Highway Admin., *Every Day Counts, Expanding Use of Programmatic Agreements*, available at

<http://www.fhwa.dot.gov/everydaycounts/projects/toolkit/programatic.cfm> (last updated May 22, 2012).

⁸⁵¹ *Id.*

⁸⁵² Kendall & DeTizio, *supra* note 484, at 7.

⁸⁵³ Am. Assoc. of State Highway and Transp. Officials, *AASHTO>Organization, AASHTO Overview*, available at <http://www.transportation.org/Pages/Organization.aspx> (last visited May 26, 2013).

⁸⁵⁴ Am. Assoc. of State Highway and Transp. Officials, *AASHTO>States, AASHTO Members*, available at <http://www.transportation.org/Pages/States.aspx> (last visited May 26, 2013).

⁸⁵⁵ Am. Assoc. of State Highway and Transp. Officials, *supra* note 853.

⁸⁵⁶ Am. Assoc. of State Highway and Transp. Officials, Center for Environmental Excellence, *About the Center*, <http://environment.transportation.org/center/about/> (last visited May 26, 2013).

⁸⁵⁷ Am. Assoc. of State Highway and Transp. Officials, Center for Environmental Excellence, *Programmatic Agreement Toolkit—A How to Guide*, http://environment.transportation.org/center/products_programs/programmatic_agreement.aspx/ (last visited May 26, 2013).

the Toolkit focuses on historic preservation examples.⁸⁵⁸

The Toolkit discusses two categories of PA: 1) project-specific, and 2) procedural. The project-specific PA outlines parties' actions and responsibilities for meeting environmental compliance for a specific project. The procedural PA is more general, and concerns a whole class of projects or resources.⁸⁵⁹ Thus, procedural PAs are useful when commonality exists between various resources, effects, or projects. The project-specific PA is typically utilized only for large, complex, or controversial projects where a custom approach is required.

Benefits of PA

The USDOT explains that the major benefit of PA is that repetitive actions involved with environmental consultation, review, and compliance are handled on a program basis, instead of a case-by-case basis.⁸⁶⁰ The use of PA could produce many potential specific results. One potential result is the delegation of duties in the compliance process. Thus, environmental review could be delegated from a federal or state agency to a state DOT, such as from FHWA to a state DOT, or from a state DNR to a state DOT. For example, the state DOT could take on the review of CE or wetland permits. Thus, a state agency could coordinate directly with federal and other environmental agencies, eliminating the role of a federal agency such as FHWA. Despite the advantages of delegation, the reader is also alerted to its potential consequences. The delegated party now has to perform the coordination role previously undertaken by an agency like FHWA; thus the party must possess the resources and relationships to ensure successful coordination. And because the state agency now steps into a federal agency's shoes, there is the potential for an increase in exposure to litigation. Through MAP-21 legislation, an existing pilot delegation program was broadened to allow any state to assume FHWA's role in the NEPA process.⁸⁶¹

⁸⁵⁸ Statistical Research Inc. Found., *SRIF History*, <http://www.srifoundation.org/history.html> (last visited May 26, 2013).

⁸⁵⁹ Am. Assoc. of State Highway and Transp. Officials, *supra* note 857.

⁸⁶⁰ Fed. Highway Admin., *Expanding the Use of Programmatic Agreements, Everyday Counts Initiative*, <http://www.fhwa.dot.gov/everydaycounts/projects/toolkit/programmatic.cfm> (last visited May 26, 2013).

⁸⁶¹ 23 U.S.C. § 327 (2013).

Another benefit of PA is the acceptance of alternate standards of performance. As a result, programmatic biological assessments or opinions might be used in place of a separate Section 7 consultation for future projects. The shortening of timeframes allows agencies to proceed in a timely fashion and without the fear of a forced start-over. Reasons timeframes may be reduced include enhanced clarity and focus pertaining to roles and responsibilities, the standardization of procedures for coordination and compliance, and improved relationships among agencies.⁸⁶² PA could also enable the participation of parties not involved in the normal process. Finally, PAs, when effective, could help to strengthen relationships with other agencies by improving work flow and staff morale.⁸⁶³

PA Development

Existing literature presents several keys for developing PA. These keys are listed herein by rough order of importance. The first and most important key is to develop relationships of trust and cooperation between all parties.⁸⁶⁴ Since PAs are developed before emergency situations arise, the nurturing of relationships occurs in absence of the urgency usually present during emergencies. One useful approach is to identify common ground so that all parties may benefit. The strategies detailed in Section IV.A.1, *Relationship with Other Agencies*, of the current document also apply here.⁸⁶⁵ A second key to developing PA is to focus on the true intent and purpose of environmental laws, rather than the process. Thus the focus transfers to the stewardship of valuable environmental resources. A third key that is especially applicable in less-established relationships is to "start small." One technique is to find the simplest PA that is likely to be successful and to follow through to ensure its success. Another technique is to limit the PA to a relatively short term, in order to limit risk and establish renewal criteria. Providing for monitoring opportunities and scheduling regular evaluation meetings are other useful techniques for limiting risk. A modest start can nevertheless pave the way for the future expansion of the PA's scope. A fourth key is to man-

⁸⁶² Fed. Highway Admin., *supra* note 860.

⁸⁶³ *Id.*

⁸⁶⁴ Am. Ass'n of State Highway & Transp. Officials, *supra* note 791.

⁸⁶⁵ Am. Ass'n of State Highway & Transp. Officials, *supra* note 791.

age personalities. If major personality conflicts exist, then methods through which the effects of such conflict could be limited should be identified. For example, one strategy is to limit the necessary interactions between the concerned parties. A fifth key is to use a neutral party to aid in facilitating PA development.⁸⁶⁶ Such a neutral party should not have a stake in the issues affecting the relevant parties. Ideally, the neutral party should be skilled in the areas of negotiation and mediation. All parties should agree on the choice of the neutral party. A sixth key is to make the PA severable, so that the failure of one aspect of the PA does not bring the whole agreement down. The final key is to involve the public in creating project-specific PAs; this key is generally not required of procedural PAs, since there is no such legal requirement; the impact is on interagency resources.

PA Examples

The development of PA may involve significant staff resources and an extended timeframe. Even after a PA has been executed, there exists the need to renew the agreement and to educate any new personnel on its use.⁸⁶⁷ The following examples illustrate the effort required for PA development. In Vermont, the creation of a Section 106 PA required one dedicated staff member each from both the Vermont Transportation Agency and the Vermont SHPO. From development to execution, the PA process lasted approximately 4 years.⁸⁶⁸ In Michigan, Michigan DOT staff members worked 10 hours per week for approximately 1 year to develop a PA on water resources.⁸⁶⁹ In Colorado, a Section 7 PA required two full-time Colorado DOT staff, private consultants, and a legal consultant. In Maryland, a Section 106 PA took 1.5 years to execute, but might have been accelerated had specific deadlines been set.⁸⁷⁰

PAs have been used successfully across all environmental areas. These include Section 4(f) evaluation, Section 106 review, NEPA categorical exclusion documentation and approval, coastal zone management, culvert replacement, tribal consultation, historic properties, endangered spe-

cies, and wetlands.⁸⁷¹ There are fewer examples of PAs that were developed specifically for use in emergencies.

The following emergency PA is illustrative of elements of PA drafting. A PA entitled, “Programmatic Agreement among the Federal Emergency Management Agency, Vermont State Historic Preservation Officer (SHPO), Vermont Emergency Management Division of the Department of Public Safety (VEM), and the Advisory Council,” was finalized in 2011.⁸⁷² Though the area pertaining to the PA is not presented explicitly in the title, it is clear from the names of the parties that the PA focuses on Section 106 of NHPA.

Recitals or background information are introduced with the word, “whereas.” The first paragraph presents the mission of FEMA.⁸⁷³ Paragraph two lists FEMA’s statutory authority in administering federal assistance in Vermont, including the Homeland Security Act, the Stafford Act, and various flood legislations.⁸⁷⁴ The third paragraph discusses the scope of the PA, which relates to undertakings and the resulting impacts on historic properties.⁸⁷⁵ Paragraph four outlines the process of federal FEMA assistance through the Vermont Emergency Management Division of the Department of Public Safety.⁸⁷⁶ The fifth and sixth paragraphs discuss the Stockbridge-Munsee Tribe.⁸⁷⁷ The tribe could potentially have been affected by the PA, but chose not to sign the PA. Paragraph seven describes the PA development process with the Advisory Council on Historic Preservation. The eighth and ninth paragraphs present statutory and Advisory Council regulatory authority for the use of the PA and the resulting elimination of SHPO and Advisory Council review of certain routine activities.⁸⁷⁸ The section concludes with the statement that FEMA would fund subgrantees only following a review consistent with the PA. In summary, the recitals communicated the general purpose of the lead agency, the statutory authority for the lead agency and the use of a PA, the specific focus of the PA on historic properties, and the relationship between the

⁸⁶⁶ Am. Ass’n of State Highway & Transp. Officials, *supra* note 791.

⁸⁶⁷ Moody, *supra* note 780.

⁸⁶⁸ Am. Ass’n of State Highway & Transp. Officials, *supra* note 806.

⁸⁶⁹ *Id.*

⁸⁷⁰ *Id.*

⁸⁷¹ Fed. Highway Admin., *supra* note 860.

⁸⁷² Vt. Section 106 PA, *supra* note 386, at 1.

⁸⁷³ *Id.*

⁸⁷⁴ *Id.*

⁸⁷⁵ *Id.*

⁸⁷⁶ *Id.*

⁸⁷⁷ *Id.* at 1-2.

⁸⁷⁸ Vt. Section 106 PA, *supra* note 386, at 2-4.

parties and any third parties that could be affected by the PA.

A list of stipulations follows. Stipulations in this context refer to any items in the PA that forms a material article of the PA. The first section of stipulations defines the PA's scope of applicability; this includes the valid time interval, the specific resource affected (i.e., National Register of Historical Places eligible properties), the applicable action (i.e., FEMA direct or assigned undertakings), any exemptions such as salvage and personal property, the relationship to related processes, and other miscellaneous articles. The second section includes the roles and responsibilities of each of the signatory parties. Examples of responsibilities include staffing qualifications, reporting requirements, delegation authority, agency responsiveness, notice obligations, and coordination needs. Examples of roles include lead, consultee, delegator, grantee, sub-grantee liaison, and mediator. The final section lists important timelines for emergencies, recovery activities, and all programs. Upon the expiration of a specific timeframe, a concurrence from the consulting agency is assumed.

The remainder of the PA divides actions into four major subsections. They include initial coordination, project review, public participation, and other considerations. The initial coordination subsection outlines the set of actions immediately following the declaration of a disaster, such as required notifications and joint actions. Joint actions include a listing of areas containing unidentified historic properties, the identification of NRHP non-integrity properties, and direction for local communities on staging and landfill sites. The project review subsection presents expedited emergency review processes, programmatic review allowances, and standard project review procedures. The next subsection emphasizes the value of public participation and the need for identifying interested parties relative to affected resources. Other miscellaneous considerations include changes in the scope of work and unexpected discoveries. The PA concludes with the execution of the agreement by all relevant agency heads. The appendices include background material and the important list of specific programmatic allowances not requiring SHPO and Advisory Council review. The length and detail of this PA illustrates the significant effort required for developing such a PA.

The PA entitled, *The Emergency Relief Programmatic Agreement between the US Army Corps of Engineers, US Fish and Wildlife Service, Fed-*

eral Highway Administration, and North Dakota Department of Transportation, streamlined the NEPA process by defining the requirements for different types of emergency repairs. The recitals explained the jurisdictions and environmental responsibilities of the parties. The title and recitals clearly focused the scope of this PA on federal ER. An important stipulation stated that prior FHWA approval was not required for emergency repairs and preliminary engineering.⁸⁷⁹ The environmental classification of emergency work was separated into three categories of CE. Category One involved little or no environmental impacts, and was limited to restoration to pre-existing conditions.⁸⁸⁰ Such projects do not require any additional data submittal to FHWA, except for a detailed damage inspection report.⁸⁸¹ Repair examples include temporary traffic control, embankments and fill, temporary structures or bypasses, and debris or slide removal.⁸⁸² Category Two applies to projects where impacts are minor and require no further NEPA review.⁸⁸³ Such projects include slight additions to pre-existing conditions such as adding riprap, minor upgrades in pipe size, and projects that require ESA or Section 106 review. Category Three requires documented NEPA evaluation, and could involve major alterations or betterments.⁸⁸⁴ A project must follow the Corps nationwide permit 3 guidelines.⁸⁸⁵ This programmatic agreement streamlined the processes for ER projects that fall under NEPA CE, and clarified ER eligibility requirements.⁸⁸⁶

b. Use of General Permits.—The development of regional general permits is one way of facilitating emergency recovery for common types of regional disasters. For example, the Corps is divided into various divisions and districts, and the local division and district is authorized to issue regional permits.⁸⁸⁷ For the five Corps districts of Kansas City, St. Louis, Rock Island, Little Rock, and Memphis, the General Permit No. 41 allows the permanent protection and/or repair of flood damaged structures, land areas, and fills.⁸⁸⁸ These dis-

⁸⁷⁹ 23 C.F.R. 668.109(a)(1) (2013).

⁸⁸⁰ N.D. ER PA, *supra* note 453, at 5.

⁸⁸¹ *Id.*

⁸⁸² *Id.*

⁸⁸³ *Id.* at 6.

⁸⁸⁴ *Id.* at 7.

⁸⁸⁵ *Id.* at 7-8.

⁸⁸⁶ N.D. ER PA, *supra* note 453, at 1-8.

⁸⁸⁷ 33 C.F.R. Part 320–330 (2014).

⁸⁸⁸ Brooks, *supra* note 425.

tricts are affected by the flooding from the Mississippi River and tributaries. Another example is the Louisiana DNR General Permit No. 29 that authorizes emergency repairs and cleanup activities such as emergency dredging or filling, or refurbishment of roads.⁸⁸⁹ General Permit No. 29 was applicable to 19 coastal parishes in Louisiana.⁸⁹⁰

4. Up-to-Date Inventories, Information, and Tools

Two general types of information that assist agencies in emergency environmental compliance are procedural and environmental resource data. Procedural information is valuable to agency staff members who are not well-versed in emergency recovery. In addition to the information itself, there is a need for information to be easily accessible. Convenient ways for procedural information to be made available include websites and pre-event email reminders. Such electronic information could always be duplicated in hardcopy form in case there are severe disruptions to telecommunications following a disaster. Because agency staff gain valuable experience through lessons learned from previous disasters, such knowledge could be incorporated into emergency manuals and other guidance documents. For example, FDOT maintains a webpage dedicated to the lessons learned from previous hurricane events;⁸⁹¹ this webpage provides areas of listed species, guidance on debris staging, contracting recommendations, and important contacts.⁸⁹² Some of the webpage information is also sent to state and local emergency partners prior to hurricane events. FHWA Florida Division's supplemental guidance to the Federal ER Manual is another useful example of a web resource.⁸⁹³

Environmental resource data that is up-to-date and readily available helps to expedite the environmental review process. Time is saved when an applicant agency identifies relevant environmental resources for the review agency.⁸⁹⁴ The I-40 bridge reconstruction is one example of the use of up-to-date data. The Oklahoma DOT, SHPO, and state archaeologist had maintained current inventories of natural, cultural, and historic re-

sources for the I-40 bridge site.⁸⁹⁵ Thus, resource agencies had access to existing data to enable quick decisions concerning permits and approvals.⁸⁹⁶

Since the use of electronic media such as webpages is common, the current digest emphasizes more advanced informational tools, such as GIS and other related tools. A GIS is a relational database that links maps with tabular information.⁸⁹⁷ Software tools such as GIS-based databases and predictive statistical models facilitate the process of locating potential environmental resources. The maintenance of up-to-date inventories of environmental resources results in an accurate assessment of potential environmental impacts.⁸⁹⁸ This accurate upfront assessment prevents surprises and costly delays throughout the project development stages. These inventories also accelerate the review process, since they minimize the need to undertake time-consuming field surveys, and provide agencies with the information necessary to issue rulings.⁸⁹⁹

a. MnDOT GIS-Based Statewide Archaeological Predictive Model.—The Minnesota Statewide Archaeological Predictive Model (Mn/Model) is a GIS-based tool that facilitates the identification of potential archaeological and historical sites.⁹⁰⁰ Mn/Model began in 1995 as part of the environmental streamlining associated with ISTEA.⁹⁰¹ Mn/Model is part data management and part predictive model for pre-construction archaeology.⁹⁰² The data is updated periodically by the SHPO, and there is ongoing work to develop a statewide web submittal portal for more frequent and efficient updating of archaeological and standing structures.⁹⁰³ The predictive portion refers to the process whereby environmental variables such as elevation, geomorphology, and hydrography are used to predict possible archaeological site loca-

⁸⁹⁵ Volpe, *supra* note 396, at 21.

⁸⁹⁶ *Id.*

⁸⁹⁷ Minn. Dep't of Transp., *Minnesota Statewide Archaeological Predictive Model: Geographic Information System*, <http://www.dot.state.mn.us/mnmodel/gis.html> (last visited Jan. 20, 2014).

⁸⁹⁸ Volpe, *supra* note 396, at 4.

⁸⁹⁹ *Id.* at 11.

⁹⁰⁰ Minn. Dep't of Transp., *Minnesota Statewide Archaeological Predictive Model: Geographic Information System*, <http://www.dot.state.mn.us/mnmodel/gis.html> (last visited Jan. 20, 2014).

⁹⁰¹ *Id.*

⁹⁰² Zschomler, *supra* note 397.

⁹⁰³ *Id.*

⁸⁸⁹ La. Dep't of Natural Res., Coastal Use General Permit No. 29 (CUP-GP-29) Consistency Determination 1-2 (May 12, 2006).

⁸⁹⁰ *Id.*

⁸⁹¹ N.D. ER PA, *supra* note 453, at 7.

⁸⁹² *Id.* at 6.

⁸⁹³ *Id.* at 6.

⁸⁹⁴ Eberlein, *supra* note 793.

tions.⁹⁰⁴ For example, variables such as “distance to water” and “height above surroundings” are predictive variables, since archaeological research has shown that hunter-gatherers concentrated their activities near bodies of water and on landforms such as river terraces and beach ridges.⁹⁰⁵ Two different statistical models are used: one for surface sites and another for deeply buried archaeological sites.⁹⁰⁶ The potential benefits of the Mn/Model include accessibility, efficiency, accuracy, and ease of use.⁹⁰⁷ Mn/Model is highly accessible, since each cultural resources project manager has access to the GIS system. MnDOT is also sharing the use of Mn/Model with qualified federal and state agencies.⁹⁰⁸

The substantial time savings accrued from the use of Mn/Model for locating historical properties increases staff efficiency. Accuracy in locating historical/archaeological sites is important in order to reduce the risk of missing sites, with resulting complications that could slow or derail recovery efforts. The graphical nature of a GIS entails that a project site map could contain all associated historical/archaeological data. The aforementioned benefits are especially useful during emergency recovery. An example of how such a database expedites permitting was discussed in the I-35W bridge case in Part III.E of the current digest.⁹⁰⁹

b. Florida’s GIS-Based, Internet-Accessible Environmental Screening Tool.—FDOT’s Efficient Transportation Decision Making (ETDM) developed a GIS-based tool called the Environmental Screening Tool (EST).⁹¹⁰ The genesis of EST was a multiagency summit in 2000, where participants identified good decision making data as a key feature in revamping the transportation planning process in Florida.⁹¹¹ The EST tool was further

supported by streamlining provisions in TEA-21⁹¹² and MAP-21.⁹¹³

EST is an internet-accessible GIS system that integrates different types of environmental resources and project data and quickly identifies natural and human impacts of proposed projects.⁹¹⁴ Project data include characteristics such as mode, length, cost, termini, functional classification, traffic, and urbanization.⁹¹⁵ Community data covers community history, values, demographics, infrastructure, and socioeconomic status.⁹¹⁶ In terms of environmental resources, EST includes data layers such as aesthetic effects, air quality, coastal and marine, contamination, farmlands, floodplains, historical/archaeological sites, noise, and recreation areas.⁹¹⁷ The GIS-based tool enables the automatic identification of potential environmental resources within a fixed distance of between 100 ft to 1 mi.⁹¹⁸

In order to maintain data accuracy, several entities are charged with the responsibility of keeping various data components up-to-date via Agency Operating Agreements.⁹¹⁹ For example, the FDOT ETDM coordinator tracks transportation project data, the MPO coordinator tracks long range transportation plan projects, the FDOT community liaison tracks community data, and an Environmental Technical Advisory Team tracks agency resource data.⁹²⁰ EST is available for immediate online access to staff who are working on projects and permits from all applicable agencies.⁹²¹ For example, FDOT used EST to identify debris staging areas that would avoid affecting sensitive environmental resources.⁹²²

⁹⁰⁴ Minn. Dep’t of Transp., *supra* note 900.

⁹⁰⁵ *Id.*

⁹⁰⁶ Minn. Dep’t of Transp., *Minnesota Statewide Archaeological Predictive Model: Geomorphology*, <http://www.dot.state.mn.us/mnmodel/geomorphology> (last visited Jan. 20, 2014).

⁹⁰⁷ Zschomler, *supra* note 397.

⁹⁰⁸ Minn. Dep’t of Transp., *Minnesota Statewide Archaeological Predictive Model: Implementation*, <http://www.dot.state.mn.us/mnmodel/implementation> (last visited Jan. 20, 2014).

⁹⁰⁹ Volpe, *supra* note 396, at 16.

⁹¹⁰ Fla. Dep’t of Transp., *supra* note 458, at 1-1, 1-2.

⁹¹¹ *Id.* at 2-3.

⁹¹² TEA-21, Pub. L. No. 105-178 (1998).

⁹¹³ MAP-21, Pub. L. No. 112-141 (2012).

⁹¹⁴ Fla. Dep’t of Transp., *Efficient Transportation Decision Making Overview* 7 (2006).

⁹¹⁵ Fla. Dep’t of Transp., *supra* note 458, at 6-3, 6-4.

⁹¹⁶ *Id.* at 6-4.

⁹¹⁷ Fla. Dep’t of Transp., *Efficient Transportation Decision Making: Web Application Frequently Asked Questions*, available at <https://etdmpub.flas-etat.org/est/> (last visited July 30, 2013).

⁹¹⁸ Fla. Dep’t of Transp., *supra* note 458, at 6-1.

⁹¹⁹ *Id.* at 6-8.

⁹²⁰ *Id.* at 6-3.

⁹²¹ Kendall & DeTizio, *supra* note 484, at 6-7.

⁹²² *Id.* at 7.

B. Post-Disaster

1. Informal Agreement

The use of informal agreements and procedures is related to the pre-disaster techniques of establishing strong interagency relationships and developing formal agreements. Good relationships and trust are required for informal agreements, since such agreements are not memorialized. Formal agreements provide a template to guide informal, ad hoc agreements. An example of an informal agreement was discussed in Section III.E.8 entitled, *Hurricane Irene and Vermont's Historical Bridges*. FEMA and VTrans used an existing programmatic agreement on historic bridges as a model for an informal agreement for Irene recovery.⁹²³ This informal agreement was developed on-the-fly via in-person, telephone, and email correspondence.⁹²⁴ Under this agreement, FEMA utilized VTrans's front-end work on determination of effects to accelerate compliance with Section 106.⁹²⁵

2. Project Planning and Development

a. Limiting Project Scope to Prior Right-of-Way, Alignment, and Capacity.—Limiting the scope of projects to the existing right-of-way, alignment, and capacity results in several benefits.⁹²⁶ One benefit is the avoidance of new environmental impacts and related conflicts.⁹²⁷ Another benefit is the improvement of eligibility for emergency funding for all components of the project. A third benefit is a quick ESA Section 7 consultation with the Fish & Wildlife, since the impact on threatened or endangered species would remain similar.⁹²⁸ However, there is still the concern that reconstruction activities could impact wildlife. A fourth benefit concerns the streamlining of the NEPA process. First, there is usually no need to consider alternatives, as the previous alignment is maintained.⁹²⁹ Second, a limited scope increases the likelihood that a project could be classified as a CE.⁹³⁰ Many of the case studies discussed in Part III, Section E, of the current digest utilized this technique. Examples include the I-35W bridge, Hurricane

Ivan/I-10, and the Arkansas Towboat Accident repairs.

b. Contracting Mechanisms.—Federal funding eligibility is contingent upon the satisfaction of competitive bidding requirements.⁹³¹ Some contracting methods such as D-B, design-sequencing, abbreviated plans, shortened advertising, cost-plus-time bidding, and early contractor involvement could help to improve the environmental compliance process and/or to accelerate projects for emergency recovery.⁹³² For example, the D-B method of project delivery shortens the traditional design-bid-build process by combining the separate sequential steps of design, bid, and construction.⁹³³ The unification of these steps entails that environmental issues are handled consistently throughout the design and construction stages. This unification also allows for more creativity in devising mitigation strategies, since both design and construction are in play during the planning and permitting phases.⁹³⁴ For D-B to be effective, the contractor must possess expertise in environmental compliance. Since applicant agencies have sometimes developed strong relationships with coordinating and cooperating agencies, it could be of benefit to leverage these relationships, rather than relying solely on contractors.⁹³⁵

One example of the use of D-B is the reconstruction of I-10 following Hurricane Ivan. FDOT utilized D-B to concurrently design, obtain permits, and develop environmental mitigation.⁹³⁶ Another example is the reconstruction of the I-35W bridge in Minnesota following its collapse.⁹³⁷ FHWA's rules on D-B allow DOTs to use D-B as an optional alternative to traditional contracting for qualifying projects, including the award of D-B contracts prior to the completion of NEPA.⁹³⁸ Because statutory authority for D-B varies significantly across states, the reader is cau-

⁹²³ Thomas et al., *supra* note 381, at 6.

⁹²⁴ Kachadoorian, *supra* note 381.

⁹²⁵ Thomas et al., *supra* note 381, at 6-7.

⁹²⁶ Volpe, *supra* note 396, at 4.

⁹²⁷ *Id.*

⁹²⁸ *Id.* at 9.

⁹²⁹ *Id.* at 7.

⁹³⁰ 42 U.S.C. § 5172 (2007).

⁹³¹ ROBERT S. KIRK, CONG. RESEARCH SERV., EMERGENCY RELIEF OF DISASTER DAMAGED ROADS AND TRANSIT SYSTEMS 5 (Jan. 28, 2014).

⁹³² Am. Assoc. of Highway and Transp. Officials, *supra* note 829, at 15, 17; Kirk, *supra* note 948, at 5.

⁹³³ Fed. Highway Admin., *Design-Build Effectiveness Study: Final Report* i, xi, II-9 (2006).

⁹³⁴ *Id.* at II-9.

⁹³⁵ Unruh, *supra* note 418.

⁹³⁶ Volpe, *supra* note 396, at 10.

⁹³⁷ *Id.* at 17.

⁹³⁸ 23 C.F.R. § § 627, 635, 636, 637, 710 (2007).

tioned to examine state statutes for limits on authority.⁹³⁹

c. Exemptions, Waivers, and Emergency Procedures.—Environmental laws are mostly statutory in nature, meaning Congress enacts specific statutes to address various aspects of environmental protection and conservation. Since Congress itself makes a determination of values in enacting legislation, the concept of legal necessity does not apply, even for emergencies.⁹⁴⁰ Thus, agencies must rely on emergency provisions from laws and regulations, rather than the common law doctrine of necessity. Various federal statutes have limited emergency provisions that waive certain environmental compliance duties and exempt certain categories of actions. Since the CEQ issues guidance for implementing NEPA, the majority of federal agencies' emergency NEPA procedures follow CEQ guidance.⁹⁴¹ However, individual statutes could also contain specific emergency provisions.

There could also be state provisions for waivers of state law. In Missouri for example, the Governor has certain statutory emergency powers.⁹⁴² These powers include the power to waive statutory requirements or administrative rules regarding areas such as professional licensing, department of health business, and finance and banking, but the waiving of state environmental laws and regulations is not mentioned explicitly in Missouri Revised Statutes § 44.100.1.⁹⁴³ Instead, the Governor may order the suspension of any functions or duties of administrative agencies in emergencies under § 44.110. The potential exists that emergency provisions between state and federal statutes could conflict.⁹⁴⁴ Furthermore, the environmental requirements from federal laws and regulations are not perfectly aligned, some being very limited in scope.⁹⁴⁵

⁹³⁹ N. Smith, *50-State Survey of Transportation Agency Design-Build Authority*, Nossaman, LLP (April 4, 2011).

⁹⁴⁰ Press Release, Fed. Highway Admin., U.S. Transportation Secretary Foxx Announces \$5 Million in "Quick Release" Emergency Relief Funds for Colorado (Sept. 13, 2013) (on file with author).

⁹⁴¹ Jomar Maldonado, *Navigating the Emergency Provisions of Federal Environmental Planning Requirements*, ENVTL. PRAC. Vol. 12, Iss. 3 1, 3 (2010).

⁹⁴² MO. REV. STAT. § 44.100.1 (2008).

⁹⁴³ *Id.*

⁹⁴⁴ Telephone Interview with Jomar Maldonado, Senior Attorney Advisor, Fed. Highway Admin. (Feb. 19, 2013).

⁹⁴⁵ Maldonado, *supra* note 941, at 1.

In response to Hurricane Dennis, the Florida Fish and Wildlife Conservation Commission issued an exception letter to expedite certain recovery activities.⁹⁴⁶ This letter was issued in response to an emergency order issued by the Florida Department of Environmental Protection.⁹⁴⁷ The letter authorized recovery activities near sea turtle nesting beaches that would normally be forbidden during the nesting season.⁹⁴⁸ To comply with the letter, an agency is required to follow best management practices such as the surveying and marking of nests, and the avoidance of such nests during activities.⁹⁴⁹

In addition to exemptions and waivers, emergency procedures could be employed that result in alternate procedures. The Corps, for example, expedited permit issuance after Hurricane Rita by allowing alternate permitting procedures such as general permits and letters of permission.⁹⁵⁰ The alternate procedures involved the immediate telephone contact with the Corps Galveston District or EPA, whoever had the jurisdiction, and follow-up documentation.⁹⁵¹ This documentation included the location and description of work, cause of the emergency, urgency of work, schedule, and summary of resource agency coordination.⁹⁵² Similarly, the Corps also allowed emergency permit procedures after Hurricane Katrina.⁹⁵³ The procedures were coordinated with EPA, Fish & Wildlife, FEMA, CEQ, Mississippi and Louisiana Departments of Environmental Quality, Louisiana Department of Natural Resources, and Mississippi State Historic Preservation Office.⁹⁵⁴ The reduced preconstruction procedures include the submission of the responsible party name, brief description of work, and work area map.⁹⁵⁵ The postconstruction documentation includes the

⁹⁴⁶ Fla. Fish & Wildlife Conservation Comm'n, RE: Emergency Response to Hurricane Dennis (July 13, 2005).

⁹⁴⁷ *Id.*

⁹⁴⁸ *Id.*

⁹⁴⁹ *Id.*

⁹⁵⁰ U.S. Army Corps of Eng'rs., Emergency Procedures U.S. Army Corps of Engineers Permits Regulatory Branch Galveston District (Sept. 27, 2005).

⁹⁵¹ *Id.*

⁹⁵² *Id.*

⁹⁵³ U.S. Army Corps of Eng'rs., Emergency Permit Procedures for the States of Louisiana and Mississippi Within the Boundaries of the Mississippi Valley Division CEMVD-PD-KM (Sept. 3, 2005).

⁹⁵⁴ *Id.*

⁹⁵⁵ *Id.*

completed work description, acreage of impacted wetland, and as-built drawings.⁹⁵⁶ By adopting these procedures, the responsible party consents to the Corps' determination about the necessity of an after-the-fact permit.⁹⁵⁷

C. Miscellaneous Considerations

During the course of this research, many experts raised the issue of how best to define successful emergency response.⁹⁵⁸ Specifically, some suggested that success in environmental compliance should optimally include sustainability and resiliency, concepts that are gaining wider national attention.⁹⁵⁹ Experts question whether success means more than simply not running afoul of statutes, and should include attaining greater goals as intended by legislation on a larger scale. In fact, FHWA states that resiliency should be considered when undertaking repairs.⁹⁶⁰ In some instances, there is the potential that a rapid, environmentally-compliant solution may not be the best sustainable and most resilient solution. One example of this phenomenon includes the restriction of a project to preexisting right-of-way and design in order to utilize NEPA categorical exclusion, while an expansion of the project could have resulted in a more durable and resilient solution.⁹⁶¹ However, there is the potential for an expanded scope to lead to significant delays from a much higher level of environmental analysis. For example, the 2004 Indian River Drive emergency repair in Florida was delayed an additional five years due to the desire to make permanent repairs, among other factors such as the sensitivity of adjacent resources and citizen opposition.⁹⁶² In some instances, there are alternatives that are more sustainable and are equally as environmentally compliant as other solutions, an example being the use of low-cost alternatives to rip-rap to counter erosion.⁹⁶³

The Hurricane Ivan/I-10 bridge case study illustrated an approach that took into account both short term expediency and long term sustainability. FDOT had limited the recovery project scope by not expanding capacities on the bridge ap-

proaches.⁹⁶⁴ This reduced scope enabled the environmental process to proceed quickly. At the same time, FDOT expanded the width of the bridge itself to accommodate a future expansion of the approach spans.⁹⁶⁵ This dual approach may not always be possible, since lane additions on a bridge or road could necessitate a large footprint, with the resulting necessity of greater environmental review.

Despite the importance of sustainability and resiliency, the scope of this research digest focused on compliance with existing environmental laws and expediting recovery. The reader is referred to other resources for best practices in adopting sustainable solutions for emergency recovery. For example, tools such as INVEST,⁹⁶⁶ Greenroads,⁹⁶⁷ and Envision⁹⁶⁸ can help agencies include sustainability in their recovery projects.

V. CONCLUSION

Transportation agencies are entrusted with the vital task of managing and operating public transportation facilities such as roads, bridges, and transit. The notion that transportation is a derived demand is highlighted during emergencies, since mobility is a necessity that allows other parties, such as first responders, grocery stores, fuel suppliers, and police to meet public health and safety needs. The identification of successful procedures and case studies for emergency environmental compliance helps to ensure that emergency transportation needs are met without compromising environmental safeguards put in place by various laws.

This legal digest contained a systematic review of best practices for emergency environmental compliance through indepth analysis of applicable statutes and regulations, the examination of agency procedures, the review of case studies, the summary of a national web survey, and the documentation of proven strategies. The following is a

⁹⁵⁶ *Id.*

⁹⁵⁷ *Id.*

⁹⁵⁸ Vaughn, *supra* note 754; Weaver, *supra* note 444; Moody, *supra* note 780.

⁹⁵⁹ Vaughn, *supra* note 754; Moody, *supra* note 780.

⁹⁶⁰ Fed. Highway Admin., *supra* note 248, at 2-3.

⁹⁶¹ Moody, *supra* note 780.

⁹⁶² Kendall & DeTizio, *supra* note 484, at 5.

⁹⁶³ Eberlein, *supra* note 793.

⁹⁶⁴ Volpe, *supra* note 396, at 11.

⁹⁶⁵ *Id.*

⁹⁶⁶ Fed. Highway Admin., *INVEST (Infrastructure Voluntary Evaluation Sustainability Tool)*, available at <https://www.sustainablehighways.org> (last visited Dec. 31, 2013).

⁹⁶⁷ S. T. MUENCH ET AL., *GREENROADS MANUAL V1.5*. (J.L. Anderson, C.D. Weiland, and S.T. Muench, eds.) (2011).

⁹⁶⁸ The Inst. of Sustainable Infrastructure, *ISI Envision Sustainable Infrastructure Rating System*, <http://www.sustainableinfrastructure.org/rating> (last visited Dec. 31, 2013).

summation of the most frequently used best practices.

Pre-disaster:

- Strong interagency relationships involving trust at both ground and management levels, and the fostering of such relationships on a regular basis;
- Shared staffing between applicant and resource agencies for developing efficient interagency procedures and mutual understanding;
- Development and maintenance of critical mass in staffing to provide continuity and consistency in knowledge, expertise, and interagency relationships;
- Implementation and renewal of memoranda of agreement and programmatic agreements for streamlining emergency compliance; and
- Utilization of technology for improving access and accuracy of environmental resources data required for planning and permitting.

Post-disaster:

- Limiting project scope to prior right-of-way, alignment, and capacity to meet NEPA categorical exclusion classification;
- Adopting informal emergency review procedures stemming from interagency cooperation;
- Employing alternative contracting mechanisms such as design-build that provide flexibility for environmental compliance; and
- Fully utilizing emergency exemptions, waivers, and alternate procedures.

The urgency felt by all parties involved in the emergency recovery process is one motivation for successful environmental compliance in the case of emergencies.⁹⁶⁹ This reason is not classified as a best practice, since it is a natural companion to emergencies. Some normal causes of project delay are typically absent in emergencies.⁹⁷⁰ These causes include a lack of funding, local controversy and opposition, and political indifference.⁹⁷¹ This urgency also makes the purpose and need of the project clear for the NEPA process.⁹⁷² The media and other public stakeholders tend to be more accommodating in the NEPA public involvement

process, since no one wishes to be viewed as an impediment to emergency recovery.⁹⁷³

⁹⁶⁹ Volpe, *supra* note 396, at 5.

⁹⁷⁰ *Id.*

⁹⁷¹ *Id.*

⁹⁷² *Id.* at 7.

⁹⁷³ *Id.* at 9.

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