

PREFACE

We are past the days when designing a route for a needed transportation project involved little more than finding the straightest, flattest route for a road or railroad, with the expectation that intervening swamps, forests, or neighborhoods could be severely impacted or even destroyed to achieve project goals. Federal environmental mandates, along with their state counterparts, increasingly affect how, when, and even whether a particular bridge, highway, or rail link will be built. A multitude of statutes, regulations, and executive orders address, and limit, the extent to which a transportation project will be permitted to result in impacts on people or the built and natural environment.

These requirements cover a broad range of potential impacts and take a variety of approaches. They have implications for planning—i.e., preparing for and initiating transportation projects—as well as for the acquisition of sites and the construction and operation of transportation systems and system improvements. Citizen activists and environmental organizations are well versed in these requirements and adept at using them to influence the location and design of particular improvements, as well as transportation policy generally. The transportation official, lawyer, engineer, or planner who ignores these requirements, or fails to appreciate and properly address them, places at peril the timely and cost-effective completion of agency projects.

The National Cooperative Highway Research Program (NCHRP) legal research project has recognized the importance of environmental law in transportation. Volume 4 of *Selected Studies in Highway Law* (SSHL), addendum no. 5 (published 1991), featured three reports on environmental law:

- *Environmental Litigation; Rights and Remedies*, by Hugh J. Harrinton. *Supplement by Supplement to Environmental Litigation: Rights and Remedies* by Larry Thomas.
- *Trial Strategy and Techniques in Environmental Litigation*, by Norval C. Fairman and Elias Bardis.
- *The Application of NEPA to Federal Highway Projects*, by Daniel R. Mandelker and Gary Feder.

Additional reports were published as NCHRP study topic reports, but not incorporated into the SSHL. These reports are relevant to this volume of environmental law:

- *Payment of Attorney Fees in Eminent Domain and Environmental Litigation*, by Geoffrey B. Dobson (1990)
- *Supplement to Legal Aspects of Historic Preservation in Highway and Transportation Programs*, NCHRP Legal Research Digest (LRD) No. 20, by Ross Netherton (1991).
- *Highway and Environmental: Resource Protection and the Federal Highway Program*, NCHRP LRD No. 29, by Michael C. Blumm (1994).
- *Federal Air Quality Laws Governing State and Regional Transportation Planning*, NCHRP LRD No. 31, by Arnold W. Reitzes, Jr. (1994).
- *Transportation Agencies as Responsible Parties at Hazardous Waste Sites*, NCHRP LRD No. 34, by Deborah Cade (1995).
- *Enforcement of Environmental Mitigation Commitments in Transportation Projects: A Survey of State Practices*, NCHRP LRD No. 43, by Richard Christopher (1999).

This revised volume addresses environmental laws and regulations of interest and importance to transportation agency personnel and their advisors. The analysis is intended for the transportation professional who may not be an expert in environmental laws and regulations. It includes discussion of critical statutory schemes, executive orders, and agency regulations falling within the rubric of "environmental law." The subject is addressed from the viewpoint of the transportation agency and is intended to be a reference source for addressing the environmental regulatory issues and problems particular to planning, site acquisition, construction, and operation of highways and other transportation improvements.

The volume is organized into six substantive sections that follow this introduction. Sections 1 through 5 each focus on a different stage of a transportation project, beginning with planning (Section 1) and continuing with environmental analysis and design (Sections 2 and 3), land acquisition (Section 4), and project construction and operation (Section 5). As a result, certain environmental requirements are addressed, and sometimes reiterated, in more than one section.

Section 1 addresses the subject of environmental laws related to transportation planning at the local and state levels. Topics covered include the role of Metropolitan Planning Organizations in transportation planning, and the metropolitan planning process, including long range transportation plans and transportation improvement programs. Statewide planning is also discussed, including the requirement for major investment studies. The relevant requirements imposed by the federal legislation known as TEA-21 are considered in this section. Corridor preservation as a critical element of long range transportation planning is addressed, including a discussion of specific techniques for preserving transportation corridors, regulatory takings concerns, and requirements for review under the National Environmental Policy Act (NEPA). Finally, this section discusses the transportation planning implications of the Federal Clean Air Act, and recent developments with respect to the conformity of transportation projects with state implementation plans.

Section 2 covers environmental impact review under NEPA, as well as state law analogues. The section discusses the NEPA review process from environmental assessment through supplemental environmental impact statement. Subjects of particular focus include the role of categorical exclusions, segmentation and timing, and "tiering" of environmental review. Leading case law interpreting these and other NEPA concepts and requirements is discussed, particularly as it pertains to transportation projects. Also included in this section is a discussion of the requirements imposed under Section 4(f) of the Department of Transportation Act.

Section 3, entitled "Other Environmental Law Applicable to Transportation Projects," includes discussion of other important federal laws with implications for the design and planning of transportation projects. These laws include Clean Water Act (CWA) requirements under Section 404, which regulates the discharge of dredged or fill material into waters of the United States, and the National Pollution Discharge Elimination System, under which permits are issued for, among other impacts to surface waters, the discharge of pollutants in storm water. This section also addresses the potential for encounters with hazardous materials and hazardous waste, which must be dealt with in accordance with the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA). The discussion considers liability and the evaluation of risk under these statutes. Additional statutes discussed include the Endangered Species Act and related state statutes, the "Swampbuster" provisions of the Food Security Act, the Wetlands Executive Order and Department of Transportation Order pertaining to wetlands, the Rivers and Harbors Act, federal requirements pertaining to construction in floodplains, the Coastal Zone Management Act, and various laws pertaining to public land management as it affects highway projects and the National Historic Preservation Act and Antiquities Act. Finally, this section addresses the requirement for mitigation of transportation projects under the regulations of the Federal Highway Administration.

Section 4 addresses environmental issues of concern in the acquisition of sites. The focus is on the condemnation of contaminated land, the potential for liability under CERCLA, and the

recovery of costs under that statute. A comparison is also made between CERCLA and state laws analogous to CERCLA.

Section 5 covers environmental law issues with a focus on the construction and operation of transportation projects. CERCLA is again a topic of discussion, along with the CWA stormwater discharge permitting and RCRA requirements, including requirements pertaining to underground storage tanks.

Section 6 departs from the previous sections' focus on particular environmental regulatory programs in order to address the subject of environmental litigation as it is likely to be encountered by a transportation agency. This section also discusses the topic of alternative dispute resolution.

Each subsection is footnoted to the principal source or sources from which the discussion of the subject derives. As is the intention of this project, some sections of this paper rely upon papers previously published by TRB for their organization and basic synthesis of a subject, with discussions both updated to reflect more recent developments in the law, and condensed in light of the broader scope of this document.