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Volume 3

Environmental Law and Transportation

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OF THE NATIONAL ACADEMIES

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in
Transportation Law

Volume 3

ENVIRONMENTAL LAW AND TRANSPORTATION

Transportation Research Board

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ENVIRONMENTAL LAW AND TRANSPORTATION

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NOTICE

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The members of the Project Committee selected to monitor this project and to review this report were chosen for recognized scholarly competence and with due consideration for the balance of disciplines appropriate to the project. The opinions and conclusions expressed or implied are those of the researchers, and, while they have been accepted as appropriate by the Project Committee, they are not necessarily those of the Transportation Research Board, the National Research Council, The National Academies, or the program sponsors.

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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.

Glossary of Acronyms Used

AASHTO	American Association of State Highway and Transportation Officials
ADR	Alternative Dispute Resolution
AOC	Agreed Order on Consent
APA	Administrative Procedures Act
BLM	Bureau of Land Management
BMS	Bridge Management Systems
CAA	Clean Air Act
CBRA	Coastal Barrier Resources Act
CE	Categorical Exclusion
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System
CFR	Code of Federal Regulations
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CO	Carbon Monoxide
CTGs	Control Technology Guidelines
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DOT	Department of Transportation
EA	Environmental Analysis
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FGA	Funding Grant Agreements
FHWA	Federal Highway Administration
FIP	Federal Implementation Plan
FLPMA	Federal Land and Policy Management Act
FOIA	Freedom of Information Act
FONSI	Finding of No Significance
FSA	Food Security Act
FTA	Federal Transit Administration
FWCA	Fish and Wildlife Conservation Act
FWS	Fish and Wildlife Service
HCP	Habitat Conservation Plan
HGM	Hydrogeomorphic
HUD	Department of Housing and Urban Development
ICA	Intergovernmental Cooperation Act
ILF	In-Lieu Fee
ISTEA	Intermodal Surface Transportation Efficiency Act
IWR	Institute For Water Resources
LRTP	Long Range Transportation Plan
MBRT	Mitigation Bank Review Team
MBTA	Migratory Bird Treaty Act
MEPA	Michigan Environmental Protection Act
MIS	Major Investment Study

MOAs	Memoranda of Agreement
MPOs	Metropolitan Planning Organizations
MSGP	Multi-Sector General Permit
NAAQS	National Ambient Air Quality Standards
NCP	National Contingency Plan
NEPA	National Environmental Protection Act
NFIP	National Flood Insurance Program
NFMA	National Forest Management Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO2	Nitrogen Dioxide
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollution Discharge Elimination System
NPL	National Priority List
NWP	Nationwide Permit
PM	Particulate Matter
PMS	Pavement Management Systems
POTWs	Publicly Owned Treatment Works
PRP	Potentially Responsible Parties
PS&E	Plans, Specifications, & Estimates
RACT	Reasonably Available Control Technology
RCRA	Resource Conservation Recovery Act
RD&T	Research Development and Technology
RDP	Regional Development Plan
RHA	Rivers and Harbors Act
ROD	Record of Decision
SHPO	State Historic Preservation Officer
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SMS	Safety Management Systems
STIP	State Transportation Improvement Program
SWPPP	Storm Water Pollution Prevention Plan
TCMs	Transportation Control Measures
TEA-21	Transportation Equity Act for the 21st Century
THPO	Tribal Historic Preservation Officer
TIP	Transportation Improvement Program
TMAs	Transportation Management Areas
TMS	Transportation Monitoring System
TSDFs	Treatment Storage and Disposal Facilities
TVA	Tennessee Valley Authority
UPWPs	Unified Planning Work Programs
USTs	Underground Storage Tanks
VMT	Vehicle Miles Traveled
VOCs	Volatile Organic Compounds
WET	Wetland Evaluation Technique; Whole Effluent Toxicity
WRP	Wetlands Reserve Program

SECTION 1

ENVIRONMENTAL LAW IN TRANSPORTATION PLANNING

A. METROPOLITAN PLANNING ORGANIZATIONS (MPOS)*

1. Legal Requirements

a. General Requirements

The Federal Aid Highway Act of 1962 charges MPOs with the general obligation to follow a "continuing, cooperative, and comprehensive" planning process to develop an intermodal transportation system for metropolitan areas.[1] The membership consists of local elected officials, officials of agencies that administer or operate major modes of transportation in the metropolitan area (including designated transportation agencies), and appropriate state officials.

b. Develop a Long-Range Transportation Plan (LRTP)

As required by the Act, each MPO prepares, and updates periodically, an LRTP for its metropolitan area.[2] Specifically, the LRTP identifies existing transportation facilities that should function as an integrated metropolitan transportation system within a 20-year forecast period. The LRTP includes, at a minimum, a financial plan that demonstrates financing sources and techniques to implement the LRTP, an assessment of capital investment, and other measures necessary to preserve and efficiently use the existing metropolitan transportation system. These include requirements for operational improvements; resurfacing, restoration, and rehabilitation of existing and future major roadways; and operations, maintenance, modernization, and rehabilitation of existing and future transit facilities. The LRTP also includes appropriate transportation enhancement activities.[3] Finally, the LRTP addresses any transportation control measures (TCMs) required by the Clean Air Act (CAA).[4] Each MPO provides the public with an opportunity to comment on the LRTP[5] and makes the LRTP available to the public and the governor of the subject state.[6] The public involvement process must be "proactive" and provide complete information, timely notice, and opportunity for early and continuing public involvement.[7]

c. Develop a Transportation Improvement Program (TIP)—134(h)

Each MPO, after the public comment process described above, and with the cooperation of the state and affected transit operators, develops a TIP for its area.[8] The TIP prioritizes projects in 3-year forecast periods consistent with the LRTP[9] and a financial plan that demonstrates available sources to implement the projects.[10] The TIP must conform to the applicable state air quality implementation plan in air quality nonattainment and maintenance areas for ozone, carbon monoxide, and particulate matter (PM) under the CAA.[11] TIP projects are financially constrained by year to include only those projects for which funding is available or committed or "can reasonably be anticipated to be available."[12] The MPO must update the TIP at least once every 2 years, but may modify the TIP at any time. The MPO may make minor TIP amendments without public comment and advance the priority of projects without a formal TIP amendment.[13] Once the MPO and the Governor approve the TIP, and the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) determine that the TIP conforms with the State Implementation Plan (SIP), the TIP becomes part of the Statewide Transportation Improvement Program (STIP), to be updated at comparable intervals.[14]

d. Other Legal Requirements

i. Limits of Authority.—The Federal Aid Highway Act at 23 U.S.C. § 134 provides that nothing therein shall be construed to interfere with the authority, under any state law, of a public agency with multimodal transportation responsibilities to develop plans and programs for adoption by a MPO, develop long-range capital plans, coordinate transit services and projects, and to carry out other activities pursuant to state law.[15]

ii. Multi-State MPO Coordination.—States with responsibility to provide coordinated transportation planning for a portion of a multi-state metropolitan area may enter cooperative agreements or "compacts" to mutually support such activities, including establishing special agencies such as multi-state MPOs.[16]

iii. Intra-State MPO Coordination.—Similarly, MPOs with contiguous authority within a metropolitan or nonattainment area may consult with the other MPOs

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*This section updates, as appropriate, and relies in part upon ARNOLD REITZE, JR, FEDERAL AIR QUALITY GOVERNING STATE AND REGIONAL TRANSPORTATION PLANNING (Legal Research Digest No. 31, Nat'l Coop. Highway Research Program, 1994) (hereinafter referred to as "Reitze I").

[1] 23 U.S.C. § 134(a)(4). (1994, Supp. 2001). Unless noted otherwise, all U.S.C. references are to the 1994 ed.

[2] 23 U.S.C. § 134(g)(1).

[3] 23 U.S.C. § 134(g)(2).

[4] 23 U.S.C. § 134(g)(3).

[5] 23 U.S.C. § 134(g)(4).

[6] 23 U.S.C. § 134(g)(5).

[7] 23 C.F.R. § 450.212(a).

[8] 23 U.S.C. § 134(h)(1).

[9] 23 U.S.C.A. § 134(h)(3)(c) (West 1990, Supp. 2001).

[10] 23 U.S.C. § 134(h)(2)(B).

[11] 42 U.S.C. § 7401 *et seq*.

[12] 23 U.S.C.A. § 134(h)(3)(D) (West 1990, Supp. 2001).

[13] 23 U.S.C. § 134(h)(6); 23 C.F.R. § 450.324 (2001).

[14] 23 C.F.R. §§ 450.328 & 330 (2001). Unless otherwise noted, all C.F.R. references are to the 2001 edition.

[15] 23 U.S.C. § 134(b)(3).

[16] 23 U.S.C. § 134(d).

designated for such area and the state itself to coordinate plans and programs.[17]

2. How MPOs Are Established

a. Designation

i. General.—The Governor, along with units of general purpose local government that together represent at least 75 percent of the affected population, designates MPOs for urbanized areas of more than 50,000 people by agreement or in accordance with procedures established by state or local law.[18] The Governor may designate more than one MPO within an urbanized area only if the Governor and the existing MPO determine that the size and complexity of the urbanized area make additional designations appropriate.[19]

ii. Membership in Transportation Management Areas.—The FHWA and FTA designate metropolitan areas with populations of over 200,000 as Transportation Management Areas (TMAs).[20] The FHWA and FTA undertake certification review of the TMAs every 3 years.[21]

iii. Continuing Designation and Revocation.—Designations of MPOs remain in effect until the Governor and the member units of local government revoke designation by agreement or local procedures, or until the same authorities redesignate the MPO.[22]

iv. Redesignation.—Redesignation follows the same process as initial designation.[23] An MPO must be redesignated upon request of a unit or units of general purpose local government representing at least 25 percent of the affected population (including the central city or cities as defined by the bureau of the census) in any urbanized area whose population is between 5,000,000 and 10,000,000 or which under the CAA is an extreme nonattainment area for ozone or carbon monoxide.[24]

b. MPO Boundaries

The Governor and the MPO determine the boundaries of a metropolitan planning area by agreement. Each metropolitan area must cover at least the existing urbanized area and the contiguous area expected to become urbanized within the 20-year forecast period. The metropolitan area may encompass the entire metropolitan statistical area or consolidated metropolitan statistical area, as defined by the Bureau of the Census.[25]

Special rules apply to MPOs in nonattainment areas. As modified by the 1998 Transportation Equity Act for the 21st Century (TEA-21),[26] for an urbanized area designated as a nonattainment area for ozone or carbon monoxide under the CAA, the boundaries of the metropolitan planning area in existence as of the date of enactment of TEA-21 (June 9, 1998) are retained, but may be adjusted by agreement of the Governor and affected MPOs to reflect increases in nonattainment area boundaries.[27] For an urbanized area designated after June 9, 1998, as a nonattainment area for ozone or carbon monoxide, the boundaries must encompass the existing urbanized area and the contiguous area expected to become urbanized within the 20-year forecast period, and may also encompass the entire metropolitan statistical area or consolidated metropolitan statistical area, as defined by the Bureau of the Census. In addition, the boundaries may also include any nonattainment area identified under the CAA for ozone or carbon monoxide.[28]

3. MPOs Vary in Power and Composition

The Housing and Urban Development Act of 1965 encouraged the formation of regional planning organizations controlled by elected rather than appointed officials, such as councils of governments. Initially, the majority of MPOs were regional councils; however, that has changed since the 1980s, and presently a majority of MPOs are either separately staffed or supported by staffing from city or county organizations.

4. Role of MPOs in Transportation Planning

The requirements imposed by historical and recent federal legislation affect state and regional transportation planning. The Federal-Aid Highway Act of 1962,[29] as codified in 23 U.S.C. § 134, declared that it is in the national interest to encourage and promote the development of various modes of transportation. The rationale behind the call to broaden the base of the national transportation system was to maximize the mobility of people and goods within and through urbanized areas and to minimize transportation-related fuel consumption and air pollution. The Act charged MPOs with the general obligation to follow a "continuing, cooperative, and comprehensive" planning process to develop this intermodal transportation system for the state, the metropolitan areas, and, ultimately, the Nation. The Intergovernmental Cooperation Act of 1968[30] obligated governors to establish a process for reviewing and commenting upon the compatibility of proposed federal-aid projects on overall transportation plans. The 1973 Highway Safety

[17] 23 U.S.C. § 134(e).
[18] 23 U.S.C. § 134(b)(1).
[19] 23 U.S.C. § 134(b)(6).
[20] 23 U.S.C. § 134(i)(1)(A).
[21] 23 U.S.C. § 134(i)(5)(A)(ii).
[22] 23 U.S.C.A. §§ 134(b)(4)&(5).
[23] *Id.*
[24] 23 U.S.C. § 134(b)(5)(B).
[25] 23 U.S.C. § 134(c).
[26] Public Law 105-178 (June 9, 1998), 112 Stat. 170-179, codified as 23 U.S.C. § 134. See discussion at Section 1A.4.b *infra*.
[27] 23 U.S.C. § 134(c)(3).
[28] 23 U.S.C. § 134(c)(4).
[29] Pub. L. No. 87-866 (Oct. 23, 1962), 76 Stat. 1145.
[30] Pub. L. No. 90-577 (Oct. 16, 1968), 82 Stat. 1098, as amended. 40 U.S.C. § 531 *et seq*.

Act required an MPO for each urbanized area.[31] Frequently, local transportation policy boards that had been created in response to the 1962 Federal-Aid Highway Act were designated the MPOs.[32]

a. CAA[33]

With the CAA, Congress found that the growth in air pollution brought about by the large populations located in metropolitan areas, and the resultant urbanization, industrial development, and use of motor vehicles, endangers the public health and welfare. The CAA acknowledges that states and local governments are primarily responsible for air pollution prevention and control at its source, and therefore that federal financial assistance and leadership is essential. Under the CAA, the federal government sponsors national research and development, provides technical and financial assistance to state and local governments, and assists regional air pollution prevention and control programs.

The U.S. Department of Transportation (DOT) determines whether all state and metropolitan area plans, programs, and projects in nonattainment and maintenance areas conform to the overall purpose of the CAA and the CAA Amendments of 1990. If necessary, both the state and metropolitan levels of transportation planning incorporate TCMs to reduce pollutant emissions and meet the national ambient air quality standards (NAAQS).[34] Each state submits a SIP for air quality improvement to the Environmental Protection Agency (EPA). The SIP outlines state legislation and regulations and other enforceable standards regulating air pollution sources and sets deadlines for meeting air quality standards established by the 1990 amendments.

b. Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and TEA-21 of 1998

ISTEA[35] represented a major philosophical and practical change in the federal approach to transportation. It recognized changing land use development patterns, the economic and cultural diversity of metropolitan areas, and the importance of enabling metropolitan areas to exert more control over transportation in their own regions. In order to achieve this objective, the provisions of ISTEA strengthened planning practices and coordination between states and metropolitan areas and improved the connections between different modes of transportation. ISTEA expired at the end of the fiscal year 1997, but Congress by means of TEA-21 reauthorized the transportation planning policies established in ISTEA through fiscal year 2003.[36] ISTEA and TEA-21 represent a decided shift in federal transportation policy focus away from the earlier emphasis on completing the Interstate Highway System to a recognition that the Interstate Highway System is nearly complete. Planning and programming under ISTEA and TEA-21 is responsive to mobility and access for people and goods, system performance and preservation, and environmental and quality of life issues.

While reauthorizing ISTEA's transportation planning policies, TEA-21 also made some modifications, such as reducing the number of factors that the agencies must consider as part of the transportation decisionmaking process. These factors are discussed in Section B.1. In addition, TEA-21 enhanced the public participation requirements of ISTEA.

B. THE METROPOLITAN PLANNING PROCESS*

1. Factors To Consider in Metropolitan Planning Process

a. The ISTEA / TEA-21 Factors[37]

ISTEA for the first time directed that each metropolitan planning agency consider certain factors in developing transportation plans and programs. These factors included the effects of transportation projects on mobility and access, system performance and preservation, and environmental and quality-of-life issues. TEA-21 replaced the ISTEA factors with goals that the plans are expected to achieve.

i. Mobility and Access for People and Goods.—Each MPO is instructed to consider mobility and access for people and goods in developing its transportation plans and programs. Under TEA-21, goals to be furthered include (1) increasing the accessibility and mobility options available to people and for freight; and (2) enhancing the integration and connectivity of the transportation system, across and between modes, for people and freight.[38]

ii. System Performance and Preservation.—TEA-21 also calls for each MPO's plans to further the following goals: (1) increasing the safety and security of the transportation system for motorized and nonmotorized

[31] Pub. L. No. 93-87 (Aug. 13, 1973), 87 Stat. 300, 23 U.S.C. § 401.
[32] Reitze I, at 11.
[33] 42 U.S.C. § 7401–7642.
[34] Reitze I, at 3 and 4.
[35] Pub. L. No. 102-240 (Dec. 18, 1991), 105 Stat. 1914.
[36] Pub. L. No. 105-178 (June 9, 1998), 112 Stat. 170.

* This section updates, as appropriate, and relies in part upon U.S. DEP'T OF TRANSP., HOW THE PIECES FIT TOGETHER: A GUIDE TO METROPOLITAN TRANSPORTATION PLANNING UNDER ISTEA, (1998); AASHTO, AASHTO GUIDELINES FOR PAVEMENT MANAGEMENT SYSTEMS (1990); AASHTO, AASHTO GUIDELINES FOR BRIDGE MANAGEMENT SYSTEMS (1992); FEDERAL HIGHWAY ADMIN. & NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., SAFETY MANAGEMENT SYSTEMS: GOOD PRACTICES FOR DEVELOPMENT AND IMPLEMENTATION, (1996); AASHTO, AASHTO GUIDELINES FOR TRAFFIC DATA PROGRAMS (1992); U.S. DEP'T OF TRANSP./FEDERAL HIGHWAY ADMIN., TRAFFIC MONITORING GUIDE, (1995); U.S. DEP'T OF TRANSP./FEDERAL HIGHWAY ADMIN., HIGHWAY PERFORMANCE MONITORING SYSTEM (HPMS) FIELD MANUAL FOR THE CONTINUING ANALYTICAL AND STATISTICAL DATA BASE, (1993).
[37] 23 U.S.C. § 134(f).
[38] *Id*.

users; (2) promoting efficient system management and operation; and (3) emphasizing the preservation of the existing transportation system.[39]

iii. Environment and Quality of Life.—Under TEA-21, each MPO also is to promote environmental and quality-of-life concerns in its transportation plans. These include (1) supporting the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency; and (2) protecting and enhancing the environment, promoting energy conservation, and improving quality of life.[40]

b. FHWA and FTA Regulations

The Code of Federal Regulations (C.F.R.) prescribes the policies and procedures for those activities and studies funded as part of a federal-aid project.[41] The FHWA supports the maximum possible flexibility for states and MPOs within the limitations of available funding in the use of FHWA funds to meet highway and intermodal transportation planning and research development and technology (RD&T) needs at the national, state, and local levels. States and MPOs determine which eligible activities they desire to support with FHWA funds, keeping in mind those activities of national significance. The FHWA, in coordination with state transportation agencies (STAs), monitors expenditures to ensure that federal funds are used legally. By monitoring the expenditures, FHWA also collects information from states on such matters as motor fuel consumption, motor vehicle registrations, user tax and fee receipts and distribution, and highway funding activities. Such information helps FHWA fulfill its responsibilities to the Congress and to the public.[42]

States and MPOs document their use of FHWA planning funds by describing each proposed activity and its estimated cost in work programs. Transportation planning activities or transportation RD&T activities may be administered as separate programs, paired in various combinations, or brought together as a single work program. Similarly, FHWA authorizes these activities for fiscal purposes as one combined federal-aid project or as separate federal-aid projects. Separate federal-aid projects require the submission of an overall financial summary that shows federal share by type of fund, matching rate by type of fund, state and local matching shares, and other state or local funds.

MPOs in TMAs develop unified planning work programs (UPWPs) that describe all metropolitan transportation and transportation-related air quality planning activities anticipated within the area during the next 1- or 2-year period with funds provided under the Federal Transit Act. TMAs may arrange with FHWA and the FTA to combine the UPWP requirements with the work program for other Federal sources of planning funds and may include as part of such a work program the development of a prospectus that establishes a multiyear framework within which the UPWP is accomplished.[43] TMAs designated as nonattainment areas do not program federal funds for any project that will result in a significant increase in carrying capacity for single occupant vehicles unless the project results from a congestion management system.[44]

In areas not designated as TMAs, the MPO, in cooperation with the state and transit operators and with the approval of FHWA and the FTA, may prepare a simplified statement of work, instead of an UPWP. The statement of work describes who will perform the work and the work that will be accomplished using federal funds. If a simplified statement of work is used, MPOs may submit it as part of the statewide planning work program.

FHWA develops a Federal-Aid Project Agreement (project agreement)[45] from the final work program documents as a contractual obligation of the Federal Government at the time it grants the authorization to proceed with the work program. Each state monitors all work program activities, including those of its MPOs supported by FHWA funds, to assure that the work is being managed and performed satisfactorily and that time schedules are being met. The state submits, at most quarterly and at least annually, performance and expenditure reports, including a report from each MPO, that contain a comparison of actual performance with established goals; the progress in meeting schedules; the status of expenditures in a format compatible with the work program, including a comparison of budgeted (approved) amounts and actual costs incurred; cost overruns or underruns; any approved work program revisions; and other pertinent supporting data. The project agreement requires reporting of the results of activities performed with FHWA funds and FHWA approval before publishing such reports. The state or MPO may request a waiver of the requirement for prior approval. FHWA's approval constitutes acceptance of

[39] *Id*.

[40] *Id*.

[41] 23 C.F.R. § 420.101.

[42] 23 C.F.R. § 420.105; § 420.117; FHWA's *A Guide to Reporting Highway Statistics* available at http://www.fhwa.dot.gov/ohim/ghwystat.htm. See also proposed rules at 66 Fed Reg. 59188 (2001).

[43] U.S. DEP'T OF TRANSP., HOW THE PIECES FIT TOGETHER: A GUIDE TO METROPOLITAN TRANSPORTATION PLANNING UNDER ISTEA 36 (*See* 23 C.F.R. § 450.314(b)).

[44] The Court denied a preliminary injunction to plaintiffs in Conservation Law Found. v. Federal Highway Admin., 827 F. Supp. 871, 884, (D.R.I. 1993), *affirmed*, 24 F.3d 1465 (1st Cir. 1994), against the programming of federal funds that resulted in a significant increase in carrying capacity for single-occupant vehicles during the implementation period of ISTEA. To assist compliance during the implementation period, FHWA published Interim Guidance that directed that "projects that have advanced beyond the NEPA process and which are being implemented, e.g., right-of-way acquisition is in the process, will be deemed to be programmed and not subject to this requirement." Similar to ISTEA at the time of the *Conservation Law Foundation* decision, TEA-21 is "of recent vintage," and, "as such, case law interpreting the statute is sparse and agency regulations are not yet in place." *Id.* at 885.

[45] 23 C.F.R. § 420.115.

such reports as evidence of work performed but does not imply endorsement of a report's findings or recommendations. Reports prepared for FHWA-funded work must include appropriate credit references and disclaimer statements.[46]

c. FHWA

States and MPOs find guidance for the administration of activities and studies undertaken with FHWA funds in the C.F.R. and in FHWA publications. States and MPOs design systematic processes, called management systems, to identify performance measures, collect and analyze data, determine needs, evaluate and select appropriate strategies and actions to address the needs, and evaluate the effectiveness of the implemented strategies and actions. The C.F.R. provides guidelines for implementation of each of the management systems and references additional publications for some of the management systems, including systems for managing highway pavement of federal-aid highways (PMS),[47] bridges on and off federal-aid highways (BMS),[48] highway safety (SMS),[49] and the traffic monitoring system for highways and public transportation facilities and equipment (TMS).[50,51,52]

[46] 23 C.F.R. § 420.117(e).

[47] *AASHTO Guidelines for Pavement Management Systems* (July 1990) can be purchased from the American Association of State Highway and Transportation Officials, 444 N. Capitol Street, NW., Suite 249, Washington, D.C. 20001. Available for inspection and copying as prescribed in 49 C.F.R. pt. 7, app. D.

[48] *AASHTO Guidelines for Bridge Management Systems* (1992), can be purchased from the American Association of State Highway and Transportation Officials, 444 N. Capitol Street, NW., Suite 249, Washington, D.C. 20001. Available for inspection and copying as prescribed in 49 C.F.R. pt. 7, app. D.

[49] FEDERAL HIGHWAY ADMIN. & NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., SAFETY MANAGEMENT SYSTEMS: GOOD PRACTICES FOR DEVELOPMENT AND IMPLEMENTATION (1996). Available for inspection and copying as prescribed in 49 C.F.R. pt. 7, app. D.

[50] *AASHTO Guidelines for Traffic Data Programs* (1992), ISBN 1-56051-054-4, can be purchased from the American Association of State Highway and Transportation Officials, 444 N. Capitol Street, NW., Suite 249, Washington, D.C. 20001. Available for inspection and copying as prescribed in 49 C.F.R. pt. 7, app. D.

[51] FEDERAL HIGHWAY ADMIN., Pub. No. FHWA PL-95-031, TRAFFIC MONITORING GUIDE (1995). Available for inspection and copying as prescribed in 49 C.F.R. pt. 7, app. D.

[52] FEDERAL HIGHWAY ADMIN., Order No. M5600.1B, *HIGHWAY PERFORMANCE MONITORING SYSTEM (HPMS) FIELD MANUAL FOR THE CONTINUING ANALYTICAL AND STATISTICAL DATA BASE* (1993). Available for inspection and copying as prescribed in 49 C.F.R. pt. 7, app. D.

2. MPO Planning Process Products

a. The LRTP

i. Minimum Plan Requirements.—Each MPO prepares, and updates periodically, an LRTP for its metropolitan area, identifying those existing transportation facilities that contribute to larger transportation systems. The LRTP identifies transportation facilities (including but not necessarily limited to major roadways, transit, and multimodal and intermodal facilities) that should function as an integrated metropolitan transportation system. The LRTP emphasizes those facilities that serve important national and regional transportation functions. In formulating the LRTP, the MPO must consider the TEA-21 factors as they relate to the MPO's 20-year forecast period.[53]

The LRTP includes a financial plan that demonstrates that implementation is fiscally feasible by identifying resources from public and private sources that are available to carry out the plan. The financial plan also recommends any innovative techniques to finance needed projects and programs, including such techniques as value capture, tolls, and congestion pricing.[54] The LRTP assesses capital investment and other measures necessary to preserve and efficiently use the existing metropolitan transportation system. These measures include requirements for operational improvements, resurfacing, restoration, and rehabilitation of existing and future major roadways, as well as operations, maintenance, modernization, and rehabilitation of existing and future transit facilities. The LRTP assesses ways to make the most efficient use of the existing facilities to relieve vehicular congestion and maximize the mobility of people and goods.[55] Finally, the LRTP indicates any proposed transportation enhancement activities.[56]

ii. Coordination with CAA Agencies.—ISTEA changed transportation planning by linking planning to the "conformity" requirements found in the CAA.[57] The U.S. DOT determines whether all plans, programs, and projects in nonattainment and maintenance areas conform to the overall purpose of reducing pollutant emissions to meet NAAQS. ISTEA and TEA-21 also contain provisions that require MPOs to demonstrate that anticipated emissions that result from implementing such plans, programs, and projects are consistent with and conform to the purpose of the SIP for air quality.[58]

[53] 23 U.S.C. § 134(g)(2)(A). The TEA Factors are discussed at § 1.B.1.a *supra*.

[54] 23 U.S.C. § 134(g)(2)(B).

[55] 23 U.S.C. § 134(g)(2)(C).

[56] 23 U.S.C. § 134(g)(2)(D).

[57] 23 U.S.C. § 134(g)(3).

[58] *See* § 1.F.3 *infra*.

iii. Public Involvement.—Each MPO provides citizens, affected public agencies, and representatives of transportation agency employees, private providers of transportation, and other interested parties with a "reasonable opportunity to comment" on the LRTP before approval.[59]

iv. Plan Publication.—TEA-21 strengthened the public participation requirements of ISTEA by requiring MPOs to publish the LRTP "or otherwise [make it] readily available for public review." MPOs must also, for information purposes, submit the LRTP to the Governor.[60]

b. The TIP

i. Program Development.—The MPO designated for a metropolitan area, in cooperation with the state and affected transit operators, develops a TIP for the metropolitan area. In developing the program, the MPO provides the public and other interested parties with a substantial opportunity to comment. The MPO and the Governor approve the program, and the MPO updates the program at least once every 2 years.[61]

ii. Project Prioritization and Program Financial Plan.—The TIP includes a priority list of projects and a financial plan. The priority list of projects are those to be carried out within each 3-year period after the TIP's initial adoption. The TIP's financial plan demonstrates how projects can be implemented, indicates public and private resources that are reasonably expected to be available to carry out the program, and recommends innovative financing techniques to finance needed projects and programs, including value capture, tolls, and congestion pricing.[62]

iii. Project Selection.—The state, in cooperation with the MPO, selects projects in conformance with the TIP for the area.[63]

iv. Public Notice and Comment on Proposed TIP—Before approving a TIP, an MPO provides citizens, affected public agencies and representatives of transportation agency employees, private providers of transportation, and other interested parties with reasonable notice of and an opportunity to comment fully on the proposed program.[64]

v. Financial Constraints.—The TIP must fully integrate financial planning and may only program projects, or an identified phase of a project, for which funds are available within the time period contemplated for completion of the TIP. In essence, the TIP must be "financially constrained" by year and cover at least 3 years.[65]

To ensure that there is sufficient funding to maintain and operate the existing system, proposed TIP expenditures must not exceed estimated revenues. Transit operators and other involved agencies must provide timely and accurate cost and revenue estimates. Limiting TIP expenditures to available resources forces the MPOs to choose among alternative transportation investments and policies and make trade-offs. This prevents TIPs from becoming "wish lists."[66]

C. STATEWIDE PLANNING*

23 U.S.C. § 135 declares that "[i]t is in the national interest to encourage and promote the development of transportation systems embracing various modes of transportation in a manner that serves all areas of the state efficiently and effectively."[67] Accordingly, each state develops transportation plans and programs to provide for the development of transportation facilities that function as an intermodal state transportation system. The process for developing such plans and programs provides for consideration of all modes of transportation and, as at the metropolitan level, is supposed to be "continuing, cooperative, and comprehensive."

1. Factors to Consider in Statewide Planning Process

a. The ISTEA and TEA-21 Factors [68]

i. Mobility and Access for People and Goods.—At the state level, as at the metropolitan level, planning includes consideration of mobility and access for people and goods. Under TEA-21, goals to be furthered include (1) increasing the accessibility and mobility options available to people and for freight; and (2) enhancing the integration and connectivity of the transportation system, across and between modes, for people and freight. While the stated purpose of ISTEA and TEA-21 is to promote an intermodal transportation system, the term "intermodalism" is not specifically defined. Leibson and Penner proposed the following definition of intermodalism: "A national transportation network consisting of all modes of transportation, including support facilities, interlinked to provide maximum opportunity for the multimodal movement of people and freight in a seamless, energy-efficient and cost-effective manner."[69] Most of the elements in this definition of intermodalism are included in the regulation at 23 C.F.R. § 450.214.

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[59] 23 U.S.C. § 134(g)(4).
[60] 23 U.S.C. § 134(g)(5).
[61] 23 U.S.C. § 134(h)(1).
[62] 23 U.S.C. § 134(h)(2).
[63] 23 U.S.C. § 134(h)(5).
[64] 23 U.S.C. § 134(h)(4).
[65] 23 U.S.C. § 134(h)(3)(D).

[66] HOW THE PIECES FIT TOGETHER, *supra* note 43, at 25.

* This section updates, as appropriate, and relies in part upon RUSSELL LEIBSON & WILLIAM PENNER. LEGAL ISSUES ASSOCIATED WITH INTERMODALISM (Legal Research Digest No. 5, Transit Coop. Research Program, Fed. Transit Admin., 1996).

[67] 23 U.S.C.A. § 135(a)(1) (1990, Supp. 2001).

[68] 23 U.S.C. § 135(f).

[69] RUSSELL LEIBSON & WILLIAM PENNER, LEGAL ISSUES ASSOCIATED WITH INTERMODALISM 6 (Legal Research Digest No. 5, Transit Coop. Research Program, Fed. Transit Admin., 1996). *See* 23 C.F.R. § 450.214(b)(1).

ii. System Performance and Preservation.—TEA-21 calls for each state's plans to further the following goals: (1) increasing the safety and security of the transportation system for motorized and nonmotorized users; (2) promoting efficient system management and operation; and (3) emphasizing the preservation of the existing transportation system.

iii. Environment and Quality of Life.—Under TEA-21, each state should also promote environmental and quality of life concerns in its transportation plans. These include (1) supporting the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency; and (2) protecting and enhancing the environment, promoting energy conservation, and improving quality of life.

c. FHWA and FTA Regulations

Prior to the enactment of ISTEA, such statewide planning was not required. ISTEA required FHWA and FTA to establish funding and comply with the statewide planning process as the state develops a STIP.[70] FHWA and FTA regulations require that each state, in its statewide transportation planning process and planning documentation, include data collection and analysis, and consideration of the factors recently revised by TEA-21. States are also required to coordinate activities with participating organizations, including the MPOs, and develop a statewide transportation plan and a STIP.

2. Coordination with Metropolitan Planning Process

Regulations implementing ISTEA require MPOs within a state to work together to produce a coordinated statewide transportation plan.[71] The state develops a long-range transportation plan for all of its area. With respect to metropolitan areas, the state develops the plan in cooperation with the MPOs to reconcile transportation planning activities, to ensure connectivity within transportation systems, and to implement measures required by the CAA. Coordination includes investment strategies to improve adjoining state and local roads that support rural economic growth and tourism development, federal agency renewable resources management, and multipurpose land management practices, including recreation development. In developing the plan, the state provides the public with a reasonable opportunity to comment on the proposed plan.

Reitze indicated that ISTEA had strengthened the statewide transportation planning process, emphasized consideration of environmental concerns, and contributed positively toward streamlining the many government agencies that are involved in the planning process.[72] But, different MPOs may have different agendas, which often impedes the completion of statewide plans.[73] Challenges to successful intermodal transportation plans stem primarily from government restrictions on funding application and allocation. Often, funding is allocated by state governments to specific modal projects and cannot be expanded to intermodal projects. This leads to conflicts between agencies and thwarts the purpose and future of intermodal transportation.[74] TEA-21 answered several of the concerns raised by Leibson and Penner prior to its enactment, as it simplified the funding process necessary for transportation projects.

The state also incorporates a long-range plan for bicycle transportation and pedestrian corridors for appropriate areas of the state. Additionally, the state, with participation, as appropriate, from MPOs, addresses the concerns of Indian tribal governments having jurisdiction over lands within the boundaries of the state. The state develops a plan with participation from tribal governments and the Secretary of the Interior.

3. STIP

A state develops a STIP for all of its areas in cooperation with MPOs. In developing the STIP, the Governor provides the public with a reasonable opportunity to comment.[75] The state chooses projects in areas of less than 50,000 population. A STIP includes projects that are consistent with the state long-range plan and any state implementation plan developed under the CAA, as well as all MPOs, LRTPs, and TIPs. The STIP reflects the priorities for programming and expenditures of funds, including transportation enhancements. The federal Secretary of Transportation reviews and approves STIPs no less frequently than biennially.[76] Developing the STIP, which is required by federal regulation,[77] can be problematic when MPOs have conflicting agendas or funding is restricted to specific modal rather than intermodal projects: "Often, projects within a single region compete for the same federal dollars, rather than act as components of an integrated plan."[78] While ISTEA and TEA-21 promote intermodal transportation planning in theory, funding barriers exist that make it difficult for states to produce an intermodal plan. According to Leibson and Penner: "ISTEA, despite its flexibility, still erects a system in which one mode of transportation competes against another for funding. This promotes modal thinking and discourages coordinated, system wide planning."[79]

4. Financial Constraints

TEA-21 appears to preserve the same flexibility given by ISTEA that allows states and MPOs discretion to allocate federal transportation funds among their own

[70] Reitze I, at 13.
[71] 23 C.F.R. § 450.206(b).
[72] Reitze I, at 12.
[73] LEIBSON & PENNER, *supra* note 69, at 8, 14.
[74] *Id.*
[75] 23 U.S.C. § 135(f)(1)(c).
[76] 23 U.S.C. § 135(f)(4).
[77] 23 C.F.R. § 450.206(a)(5).
[78] LEIBSON & PENNER, *supra* note 69, at 6.
[79] LEIBSON & PENNER, *supra* note 69, at 14.

projects. Potentially, however, some of the same funding problems that arose with the implementation of ISTEA may continue under TEA-21. States, like MPOs, must fully integrate long-range planning and financing, and the STIP may only program projects, or an identified phase of a project, within the "financial constraint" of the time period for which funds are available.[80] Similarly, intermodal projects proposed by states and MPOs often cannot neatly fit into the literal parameters of any particular program prescribed under ISTEA to satisfy the funding requirements, thus disabling MPOs from certifying that the federal money is expected to be available.[81]

States and MPOs often rely on ISTEA and TEA-21 monies to fund a portion of large infrastructure improvements that would otherwise be prohibitively expensive. Coordination of state and MPO long-range plans under ISTEA increased local participation in the planning process. The same coordination is encouraged under TEA-21, but there is also the possibility for conflict between state, regional, and local interests, particularly when there is a single MPO for an area that must attempt to reconcile both urban and suburban interests within that area.[82] A percentage (currently 2 percent) of federal funds made available to the states for surface transportation and bridge replacement and rehabilitation are set aside by statute to carry out the requirements for state transportation planning.[83]

D. ENVIRONMENTAL REVIEW

To assist the MPO decision-making processes, FHWA and the FTA incorporated a Major Investment Study (MIS) into their planning regulations, in order to consider various environmental planning factors. TEA-21 directs the Secretary to eliminate and replace the MIS as a separate requirement for federal-aid highway and transit projects.

TEA-21[84] mandates a "coordinated environmental review process" for each highway construction project that requires the preparation of an Environmental Impact Statement (EIS) or Environmental Assessment (EA) under the National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 *et seq.*). A state may elect to apply this process to the state agencies that are involved in the development of federally-assisted highway and transit projects.

Similarly, a state may require that all state agencies with jurisdiction over environmental-related issues affected by a federally-funded highway construction project, or that are required to issue any environmental-related analysis or approval for the project, be subject to the coordinated environmental review process. States may allocate some of the federal funding to affected federal agencies to provide the resources necessary to meet any time limits for environmental review.

E. CORRIDOR PRESERVATION*

1. Purpose and Role of Corridor Preservation: Relationship to ISTEA Planning

Because transportation projects require a substantial lead time for planning, government agencies can benefit from having a method to reserve land in advance of acquisition. Planning can establish a corridor for a transportation project, but planning cannot prohibit the development of land in the corridor that can make it impossible to construct the project.

A "corridor" is the path of a transportation project that already exists or may be built in the future. The Report of the American Association of State Highway and Transportation Officials (AASHTO) Task Force on Corridor Preservation defines corridor preservation as "a concept utilizing the coordinated application of various measures to obtain control of or otherwise protect the right-of-way for a planned transportation facility."[85]

Corridor preservation can play a significant role in the transportation planning and project development process and in the avoidance of environmental damage. Corridor preservation seeks to restrict development that may occur within a proposed corridor. Studies done as the basis for corridor preservation can also result in the selection of transportation corridors that not only minimize environmental harm but also provide opportunities for environmental enhancement. The designation of transportation corridors also provides certainty by indicating where major transportation improvements are expected. Developers and local governments can rely on these corridor designations when they plan and review development projects.

The adoption of ISTEA enhanced the role of corridor preservation in the development of transportation projects. ISTEA required for the first time a mandatory state long-range transportation plan, and strengthened the metropolitan transportation planning process. ISTEA also supported the "consideration" of corridor preservation in state and regional transportation planning. TEA-21 dropped these specific planning goals

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[80] 23 U.S.C. § 135(f)(2)(D).

[81] LEIBSON & PENNER, *supra* note 69, at 7.

[82] *Id.* at 9.

[83] 23 U.S.C. § 135(g).

[84] Pub. L. No. 105-178, tit. 1, § 1308 (June 9, 1998), 112 Stat. 231.

* This section updates, as appropriate, and relies in part upon *A Working Paper on 'Official Maps'*, by Brian W. Blaesser and Daniel R. Mandelker, *in* MODERNIZING STATE PLANNING STATUTES: THE GROWING SMART[SM] WORKING PAPERS, Vol. 2 (Planning Advisory Service Report No. 480/481, American Planning Association, 1998), and DANIEL R. MANDELKER & BRIAN W. BLAESSER, CORRIDOR PRESERVATION: STUDY OF LEGAL AND INSTITUTIONAL BARRIERS, prepared for the Office of Real Estate Services (Fed. Highway Admin., 1996).

[85] Report of the AASHTO Task Force on Corridor Preservation 1-2 (1990).

and replaced them with generalized goals for the transportation planning process.

2. Regulatory Techniques

a. Corridor Mapping

Corridor maps are usually known as "official maps" at the local government level. This term originated with model legislation drafted by legal pioneers in the planning movement in the 1930s, which authorized official maps for streets. Edward Bassett and Frank Williams drafted one model law, while Alfred Bettman drafted the other.[86] The Bettman model clearly requires the adoption of a comprehensive street plan before a local government can adopt an official map, but the Bassett-Williams model does not explicitly include a plan requirement.

The model legislation authorizes the adoption of official maps showing the reservation of land for future streets, and prohibits any development within the lines of a mapped street after a map is adopted. Both models authorized variances as the principal method for allowing development in mapped streets. The Bettman model authorizes a variance if the property covered by a mapped street is not earning a fair return or if, after balancing the interests of the landowner against the interests of the municipality, a variance is justified by considerations of "justice and equity." The Bassett-Williams model authorizes a variance if land within a mapped street is not earning a fair return.[87]

Many states authorize state corridor maps for transportation corridors, but this legislation differs significantly from legislation authorizing local official maps. A typical state corridor map law requires public hearings and comments on planned corridors, the preparation and recording of official corridor maps, and local referral to the state transportation agency of any application to develop land within a mapped corridor. A state transportation agency must then find either that the development proposal has an impact on the preservation of the corridor, or that it does not have such an impact. If the agency finds that the proposed development has an impact on the corridor, it must negotiate with the developer either for the purchase of its land or a modification in the development that will protect the corridor. The law may also require the state transportation agency to coordinate its control of development in transportation corridors with local governments that have jurisdiction over the mapped corridor.[88]

The American Planning Association has proposed a new model code for corridor maps adopted by local governments that builds on the authority conferred by the state corridor mapping laws. The model law is similar to these laws, but also provides local government with a wide range of powers it can use when a landowner files an application to develop land within a mapped corridor. These include changes in the map and changes in land use regulations that can mitigate the impact of a corridor map on the land while also maintaining its integrity.[89] Coordination with the state transportation agency is required. This new model law should significantly improve the adoption and administration of corridor maps by local governments.

b. Subdivision Exactions and Reservations

Subdivision control is a form of local land use regulation that regulates the division of land into lots and blocks on recorded plats. In practice, subdivision control ordinances are usually applied only to residential subdivisions, because industrial and commercial developments are seldom platted.

Subdivision control ordinances commonly require the subdivider to dedicate land, or pay a fee, for widening adjacent highways or for a new highway, when the need for the highway is created by the subdivision. This kind of requirement is called an exaction, and does not require compensation. It can help preserve transportation corridors if a dedication or fee for land purchase is obtained before the time a thoroughfare is constructed. The use of exactions in subdivision regulations has created problems under the takings clause of the Constitution, which are discussed below.

Subdivision control ordinances may also require a subdivider to reserve land in a subdivision for a new highway or the widening of an adjacent highway.[90] The reservation may or may not be limited in time, and the state or municipality must compensate the subdivider for the reserved land when it acquires this land for thoroughfare purposes. Exactions and reservations are also used for existing and new streets.

c. Takings

The taking clause of the Fifth Amendment of the United States Constitution limits the extent to which severely restrictive land use regulation may be used to implement corridor preservation. Four Supreme Court land use takings cases have direct implications for corridor preservation techniques. Two of these cases,

[86] *See* E. BASSETT, ET AL., MODEL LAWS FOR PLANNING CITIES, COUNTIES, AND STATES (1935). The Standard City Planning Enabling Act published in the 1920s included another model, but it was not widely adopted. *See* U.S. Dep't of Commerce, A Standard City Planning Enabling Act Tit. III (1928).

[87] For examples of state official legislation based on these models, *see* KY. REV. STAT. ANN. §§ 100.293-100.307; MASS. GEN. L. ch. 41, §§ 81E to 81J; N.J. STAT. ANN. §§ 40:55D-32 to 40:55D-36 (Supp. 2001). For similar official map legislation not explicitly based on the model acts, *see* CONN. GEN. STAT. § 8-29; NEB. REV. STAT. § 18-1721; OR. REV. STAT. §§ 215.110, 215.190.

[88] For examples of state corridor mapping legislation, see CAL. STS. & HIGH. CODE §§ 740-742; MINN. STAT. ANN. § 160.085; PA. STAT. ANN. tit. 36, §§ 670-206 to 670-208.

[89] Corridor Map, § 7-501 in American Planning Association *Legislative Guidebook*.

[90] Some subdivision control legislation authorizes this kind of reservation; *see* ALA. CODE §§ 11-52-50 to 11-52-54.

Nollan v. California Coastal Commission[91] and *Dolan v. City of Tigard*,[92] considered the use of developer exactions, and their holdings define the constitutional limits if developer exactions are utilized as a means to implement corridor preservation programs. The third, *Lucas v. South Carolina Coastal Council,*[93] adopted a categorical takings rule. It holds that a land use restriction is a taking of property when it deprives a landowner of all economically viable use of his land. *Lucas* bears on the use of official maps because of the restrictive effect that official maps can have on land use. A fourth case, *City of Monterey v. Del Monte Dunes at Monterey, Ltd.,*[94] addressed a taking claim based on the allegation that a government decision to deny a development proposal did not substantially relate to a legitimate public interest.

In *Nollan* the Coastal Commission required a property owner to dedicate a public easement on his beachfront as a condition to a permit for a house under the state's Coastal Act. The Supreme Court found a taking because it could not find a "nexus" or link between the easement requirement and the reason it was imposed. The Commission had required the easement dedication because the house would contribute to a wall of residential structures that would prevent the public from viewing the coast. The Court believed this reason did not justify the dedication.

The “nexus” test adopted in *Nollan* allows exactions in the transportation context only when they are necessary to remedy traffic needs created by a land use development. It does not allow exactions for highways when a development does not create the need for the dedication.

The Supreme Court clarified the meaning of the *Nollan* case for exactions in its *Dolan* decision, decided a few years later. Plaintiffs planned to double the size of their store in the city's central business district, pave a 39-space parking lot, and build an additional structure on the property for a complementary business. The City had adopted a comprehensive plan showing that flooding had occurred along a creek near the plaintiffs' property. This plan suggested several improvements to the creek basin, and recommended that the floodplain be kept free of structures and preserved as greenways to minimize flood damage. A plan for the downtown area proposed a pedestrian/bicycle pathway intended to encourage alternatives to automobile transportation for short trips in the business district.

To implement its plans and land development code, the City conditioned the plaintiffs' building permit with a requirement that they dedicate roughly 10 percent of their property to the city. The dedication included land within the floodplain to improve a storm drainage system along the creek and a 15-foot adjacent strip for a pedestrian-bicycle pathway. To justify the dedication the City found that the pathway would offset traffic demand and relieve congestion on nearby streets, and that the floodplain dedication mitigated the increase in stormwater runoff from plaintiffs' property.

The Court held that a "nexus" existed, as required by *Nollan*, between a legitimate government purpose and the permit condition on plaintiffs' property. But the Court found a taking because "the degree of the exactions demanded by the city's permit conditions [did not] bear the required relationship to the projected impact of [plaintiffs'] proposed development." [95] The Court adopted a "rough proportionality" test to decide whether a taking has occurred under the federal constitution. This test is more strict than the nexus test for exactions that most state courts have applied. The Court explained that "[n]o precise mathematical calculation is required, but the city must make some sort of individualized determination that the required dedication relates both in nature and extent to the impact of the proposed development."[96] Justifying an exaction in a corridor preservation area should not be difficult if careful planning has preceded the designation of the corridor, and if the exaction relates to transportation needs.

The *Lucas* case found a taking when a Beachfront Management Act prohibited the construction of a house on a beach seaward of an historically-established erosion line. The Court held that the prohibition was a taking *per se* because the prohibition denied Lucas any economically beneficial use of his property.

A denial of all economically beneficial use can occur when governments apply land use regulations in corridor preservation programs. Most corridor map laws provide that no development can occur within a mapped corridor unless a landowner obtains a development permit. If a state or municipality denies a permit, it can deprive a landowner of all economically beneficial use of his land if the landowner does not have a viable use of his land in its existing state, such as agriculture. A state or municipality can also avoid a taking by adjusting the corridor map or through other mitigation measures, as authorized by the American Planning Association's model law.

The *Del Monte Dunes* case involved 37.6 ocean front acres known as the "Dunes." Adjacent to the Dunes are a multi-family residential development, other private property, a railroad right-of-way, and a state beach park. Seven tank pads and an industrial complex remain on the property from its prior use as a petroleum tank farm. The developer's predecessor had

[91] 483 U.S. 825 (1987). The court cited with approval a Maryland case that held the use of land reservations in subdivisions as a method for implementing corridor preservation was a taking. (483 U.S. at 839). Howard County v. JJM, Inc., 482 A.2d 908 (Md. 1984). As that case indicates, the Maryland court has a mixed record in cases claiming subdivision land reservation was a taking.

[92] 512 U.S. 374 (1994).

[93] 505 U.S. 1003 (1992).

[94] 526 U.S. 687 (1999).

[95] 512 U.S. at 388.

[96] 512 U.S. at 391.

sought permission to develop the Dunes into 344 residential units. The City rejected that application and the same developer then submitted three more applications for 264, 224, and 190 residential units, respectively. The Ninth Circuit Court of Appeals later noted that the type and density of these proposals "could potentially have conformed to the City's general land use plan and zoning ordinances."[97] Nevertheless, the City rejected each of these applications as well. After having submitted a fifth plan—a modified development plan for 190 units—the developer transferred the Dunes to Del Monte Dunes, who continued with the application and ultimately sued when the 190-unit development was denied by the City Council.

Del Monte's suit against the City was a civil rights action in which it alleged, among other things, a taking and a violation of equal protection. In a jury trial before the federal district court, the jury found that the City's actions denied Del Monte equal protection and resulted in an unconstitutional taking and awarded Del Monte $1,450,000 in damages. The Ninth Circuit upheld the jury award. It also made clear that the jury was correctly instructed to find a taking if (1) all economically viable use of the Dunes had been denied *or* (2) the City's decision to reject Del Monte's development application did not substantially advance a legitimate public purpose. This second test, explained the court, requires that "[e]ven if the City had a legitimate interest in denying Del Monte's development application, its action must be 'roughly proportional' to furthering that interest."[98] The court concluded that Del Monte had presented evidence that none of the City's stated reasons for denying its application was sufficiently related to the City's legitimate interests.

The City appealed the judgment to the U.S. Supreme Court. The Supreme Court affirmed, but held that the rough-proportionality test of *Dolan* should not be extended beyond the "special context" of exactions.[99] The Ninth Circuit's discussion of rough proportionality, said the Court, was unnecessary to its decision to sustain the jury's verdict finding that the City's denial of the 190 unit proposal was not substantially related to legitimate public interests.[100]

Although some state cases upheld official map laws prior to these Supreme Court takings cases, other state courts held that an official map was a taking, either facially or as applied.[101] The most important official map case to date is *Palm Beach County v. Wright.*[102] The Florida Supreme Court held that an unrecorded thoroughfare map that was part of the county plan was *not* a facial taking, although the map prohibited all development in the corridor that would impede highway construction. The county noted that the thoroughfare map was a long-range planning tool tied to its comprehensive plan and did not designate the exact routes of future highways. The county also contended that the map provided enough flexibility so that it would not be clear whether a taking had occurred until a developer submitted an application for development. The county could then work with the developer to mitigate the effect of the map through mechanisms such as density transfers and development clustering to avoid any adverse impact from development in the highway right-of-way. The county also contended that the map would have the effect of increasing the value of properties within the corridor.

The Florida Supreme Court's reasons for upholding the thoroughfare map are instructive for designing official map legislation. It noted that the thoroughfare map in that case (1) only limited development to the extent necessary to ensure compatibility with future land use, (2) was not recorded, (3) could be amended twice a year, and (4) did not precisely indicate road locations. When a landowner/developer submits an application for development approval, the county, as the permitting authority, had the flexibility to remedy hardships caused by the plan. In addition, the county could work with a developer to (a) assure that the routes through the land would maximize development potential; (b) offer development opportunities for clustering the increasing densities at key nodes and parcels off the corridors; (c) grant alternative and more valuable uses; (d) avoid loss of value by using development rights transfer and credit for impact fees; and, if necessary, (e) alter or change the road pattern.

3. Advance Acquisition

Land acquisition through voluntary conveyance and involuntary condemnation is an important technique in corridor preservation because it prevents development by putting land in public ownership. Land acquisition is also important as a backup to the control of corridor land through regulation, which may be vulnerable to

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[97] 920 F.2d 1496, at 1499 (9th Cir 1990).

[98] 95 F.3d at 1430.

[99] City of Monterey v. Del Monte Dunes at Monterey, Ltd., 526 U.S. 687, 702 (1999).

[100] *Id*. at 703.

[101] *See* Urbanizadora Versalles, Inc. v. Rivera Rios, 701 F.2d 993 (1st Cir. 1983) (held 14-year reservation on official highway map was a taking); Lackland v. Hall, 364 A.2d 1244 (Del. Ch. 1976) (held state highway reservation law was a taking); Lomarch Corp. v. Mayor & Common Council of Englewood, 237 A.2d 881 (N.J. 1968) (taking; official map for park); Kingston East Realty Co. v. State Comm'r of Transp., 336 A.2d 40 (N.J. App. 1975) (upheld; reservation under state highway law with purchase requirement); Jensen v. City of New York, 369 N.E.2d 1179 (N.Y. 1977) (held taking; entire property included); Rochester Business Inst., Inc. v. City of Rochester, 267 N.Y.S.2d 274 (App. Div. 1966) (upheld under balancing test where landowner could make profitable use of land); Miller v. City of Beaver Falls, 82 A.2d 34 (Pa. 1951) (invalidating reservation for parks and playgrounds, though reservation for streets previously upheld).

[102] 641 So. 2d 50 (Fla. 1994). The court distinguished Joint Ventures, Inc. v. Department of Transp., 563 So. 2d 622 (Fla. 1990), which held the state's highway corridor mapping law facially violated substantive due process. *But see* Ward v. Bennett, 625 N.Y.S.2d 609 (A.D. 2 Dept. 1995) (reinstating complaint for taking when official map reservation existed for 50 years and landowner denied all reasonable use).

taking claims. States need not acquire full title to land in a transportation corridor. Alternatives are to acquire an option of first refusal or an easement, or to lease land.

Section 108 of the Federal Highway Act formerly provided loans to states through a revolving fund for advance acquisition of land to be used for highways.[103] The right-of-way revolving fund was eliminated by TEA-21.[104] In addition, TEA-21 provides that a state or local government can credit the value of land it acquires without federal assistance to the state share of a federally-assisted project that uses the land. However, the land acquisition cannot influence the environment assessment of the project, including project need, the assessment of alternatives, and the specific location decision.[105]

Conventional federal funding can also be used for "hardship" and "protective" buying in transportation corridors.[106] Hardship buying occurs when the adoption of a corridor makes it difficult for an owner to sell property. Protective buying occurs when the development of land threatens to impair an adopted transportation corridor.

4. NEPA and Other Environmental Laws

Section 102 of NEPA[107] requires federal agencies to prepare an EIS on major federal actions that have significant environmental impacts. NEPA applies whenever a state agency intends to use federal-aid funds to construct a transportation project, and could also apply when a state agency acquires land to implement a corridor preservation program through hardship or protective buying.[108] A state agency also may often obtain full NEPA clearance at the time it identifies a transportation corridor. The reason is that the agency may need to use land acquisition powers later. The agency may also want assurance that there will be federal reimbursement for state expenditure for land acquisition.

The most important problem created by NEPA compliance in land acquisition programs is the time frame required to complete NEPA review. A full EIS under NEPA on the acquisition of land can take up to several years, but corridor preservation may require immediate action through acquisition to protect a corridor.

FHWA and state agencies have attempted to avoid this problem in several ways, but none are completely successful. One method is the use of a Categorical Exclusion (CE). NEPA regulations adopted by the Council on Environmental Quality (CEQ) authorize agencies to adopt a CE where they believe an action can never have a significant environmental effect that requires an impact statement.[109] FHWA regulations also authorize categorical exclusions.[110]

Agencies have adopted CEs for protective or hardship acquisition of land in transportation corridors. A CE can take substantially less time to prepare than a full-blown impact statement because the environmental analysis required is not usually extensive. However, the regulations authorizing CEs apply across the board to all agency actions and do not take the special problems of corridor preservation into account.

NEPA applies to "proposals" for federal agency actions. Most of the cases hold that the condemnation of land on which an agency intends to construct a project is a mere transfer of title that is not a "proposal" under NEPA.[111] These cases mean that NEPA obligations are not triggered when agencies engage in hardship or protective acquisition in corridor preservation programs. The condemnation of land is not a proposal because a condemnation has only a neutral impact on the environment. As most courts have pointed out, whether a project will have significant environmental impacts is not clear at the condemnation stage, but if there is federal approval for property acquisition that involves participation of federal funds, there is a federal action that would trigger NEPA.[112]

However, the use of the CE in corridor preservation has been limited to individual land acquisitions. The categorical exclusion of an entire transportation corridor would be more effective, but does not yet qualify as a way to comply with NEPA.

Tiering is another option. CEQ regulations authorize tiering. They recognize that agencies must sometimes prepare EIS's on "broad" agency actions. The regulation states that "[a]gencies shall prepare statements on broad actions so that they are relevant to policy and are timed to coincide with meaningful points in agency planning and decision making."[113] This advice should also apply when an agency prepares an environmental assessment to determine whether an impact statement is necessary.

A state transportation agency could prepare a broad environmental analysis for a transportation corridor. It could then prepare more detailed EIS's for individual

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[103] 23 U.S.C. § 108 (1994).

[104] Pub. L. No. 105-178, § 1301(a) & § 1211(e), codified at 23 U.S.C.A. § 108 (Supp. 2001).

[105] 23 U.S.C.A 323(b) (West, Supp. 2001).

[106] *See* 23 C.F.R.. 710.503.

[107] Pub. L. No. 91-190, tit. I, § 102(c), (Jan. 1, 1970), 83 Stat. 853 codified as 42 U.S.C. § 4332(2)(C). *See* § 2 *infra*.

[108] The federal agency has the responsibility to comply with NEPA, but NEPA authorizes the federal agency to delegate the preparation of impact statements on federally-aided highways to state highway agencies. 42 U.S.C. § 4332(D).

[109] 40 C.F.R. §§ 1500.4(p), 1500.5(k), 1501.4(a), 1507.3(b), 1508.4.

[110] 23 C.F.R., § 771.117(d)(12).

[111] *See, e.g.,* United States v. 0.95 Acres of Land, 994 F.2d 696 (9th Cir. 1993); United States v. 255.25 Acres of Land, 553 F.2d 571 (8th Cir. 1977); United States v. 27.09 Acres of Land, 737 F. Supp. 277 (S.D.N.Y. 1990); United States v. 162.50 Acres of Land, More or Less, 567 F. Supp. 987 (N.D. Miss. 1983), *aff'd*, 733 F.2d 377 (5th Cir. 1984), *cert. denied*, 469 U.S. 1158 (1985). *Compare* United States v. 0.95 Acres of Land, 765 F. Supp. 1045 (E.D. Wash. 1991) (*contra*, where agency had entered into contracts for construction of road over land).

[112] *See* 23 U.S.C. § 108(c).

[113] 40 C.F.R. § 1502.4(b).

transportation projects when it approves them later in the project development process.

The use of state and local regulations to implement corridor preservation does not require a federal EIS unless federal funding is present. This is not likely at the planning and regulatory stage, and a federal court has held that NEPA does not require an impact statement on a regional transportation plan prepared under the Federal Highway Act.[114]

Some states have state environmental assessment legislation that is a counterpart of the federal law. Most of these laws do not apply to local planning and land use regulation, but some do. California and New York are notable examples, and in these states and others with similar statutes, a corridor preservation program that requires planning and land use regulation may require a state EIS.[115]

Corridor preservation may raise issues of compliance with other federal environmental laws. These statutes apply to a corridor preservation program only when it affects a specific natural resource area covered by a statute, such as wetlands. Compliance problems arise most frequently under the Section 404 permit program, which requires permits for development in wetlands.[116] The compliance difficulty is that the corridor stage is often too early a time at which to obtain a permit from the U.S. Army Corps of Engineers, which administers the program. FHWA has worked with the Corps to achieve coordination in the application of NEPA to dredge-and-fill permits required for highway projects,[117] and this effort could include special attention to corridor preservation.

F. CAA REQUIREMENTS*

The CAA was originally signed into law by President Lyndon B. Johnson in 1963. This first "modern" environmental law was later superseded by the 1970 CAA, which forms the basis for federal air pollution controls used today.[118] The CAA has been reviewed and amended by Congress several times, most recently in 1990.

The CAA is based on NAAQS designed to address the health-related effects of poor airquality. As a result, cost and the control technology needed to attain standards are considered secondary to public health protection.[119]

Air pollution can be reduced by regulating two types of sources. The first type of source is a "stationary source." A stationary source is "…any building, structure, facility, or installation which emits or may emit any air pollutants."[120] Examples of stationary sources would be chemical manufacturing plants, petroleum refineries, and even smaller sources such as drycleaners. Regulating stationary sources has always been a goal of the CAA and its amendments, but history has shown that regulating these sources alone will not clean the outdoor air to acceptable levels.[121] Mobile sources, such as cars, trucks, and other transportation vehicles that use internal combustion engines, are the second type of source the CAA attempts to regulate.

The control of these two types of emissions sources brings about debates in both the regulated community and the various groups composing and implementing standards for cleaner air. On one hand, stationary sources are just that, stationary. As a result, their impacts on air pollution are quantifiable and do not vary. Emissions for most sources do not vary widely with the season (with the exception of those that create heat, electricity, fuel, etc., whose demand varies seasonally). Also, emissions do not vary widely without a change in the inputs to the process or a modification to the process itself. These changes require new permits or permit modifications that can be monitored. Therefore, emissions reductions in an area can be predicted quantifiably.

Mobile source emissions are not always as quantifiable. For example, driving trends tend to change with changing urban development, economic development, and the personal desires of those needing transportation. Most importantly, however, TCMs can be difficult to implement. TCMs aimed at the "consumers" of transportation can be viewed as affecting personal rights and freedoms. Standards aimed at reducing emissions at the source can be undone by an increase in the number of emitters if technological improvements, such as cleaner burning fuels and more efficient vehicles, do not keep pace.

Congress responded to these concerns in the CAA Amendments of 1990. The amendments look at both mobile and stationary sources and set standards to be reached by both source types. If sources are not effectively controlled in an area by mandated standards, then additional standards are required by both stationary and mobile sources.[122] Also, depending on the air quality of a region, certain mandated controls

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[114] Atlanta Coalition on the Transp. Crisis, Inc. v. Atlanta Regional Comm'n, 599 F.2d 1333 (5th Cir. 1979).

[115] CAL. PUB. RES. CODE §§ 21000–211777; N.Y. ENVTL. CONSERV. LAW §§ 8-0101 to 8-0117. For citations to the state legislation see D. MANDELKER, NEPA LAW AND LITIGATION § 12.02[1] (2d ed. 1992 and annual supplements).

[116] 33 U.S.C. § 1344.

[117] FEDERAL HIGHWAY ADMIN. ET AL., APPLYING THE SECTION 404 PERMIT PROCESS TO FEDERAL-AID HIGHWAY PROJECTS (1988).

* This section updates, as appropriate, and relies in part upon FEDERAL HIGHWAY ADMIN. ET AL., APPLYING THE SECTION 404 PERMIT PROCESS TO FEDERAL AID HIGHWAY PROJECTS (1988); Reitze I; ARNOLD W. REITZE, JR., AIR POLLUTION LAW (1995); FEDERAL HIGHWAY ADMIN., TRANSPORTATION CONFORMITY: A BASIC GUIDE FOR STATE AND LOCAL OFFICES (1997, revised June 19, 2000).

[118] *See generally*, Reitze I.

[119] COMMERCE CLEARING HOUSE, INC., CLEAN AIR ACT LAW & EXPLANATION, 7 (1990).

[120] 42 U.S.C. § 7411(a)(3).

[121] Reitze I, at 3.

[122] COMMERCE CLEARING HOUSE, INC., *supra* note 119, at 9.

are placed on mobile sources.[123] The more serious an area's air quality problems, the more stringent the controls.

This is where transportation planning comes in. The CAA required EPA to establish transportation air quality planning guidelines for transportation planners to use in developing transportation plans.[124] The Act also required EPA to promulgate guidance on TCMs.[125] The Act further provided for grants to implement the programs.[126] Furthermore, nonattainment areas that cannot show that their transportation plans and programs are contributing to the attainment of air quality standards (by demonstrating conformity to the applicable SIP) cannot advance most federally-assisted highway and transit projects.[127]

This section explains the provisions of the Act that affect transportation planning. This knowledge is essential to transportation planners using federal funding or planning in areas of known air pollution problems.

1. The NAAQS and Their Application to Transportation Planning

a. NAAQS

The NAAQS specify maximum acceptable levels of pollutants for outdoor air. Because Congress found that the growth in the amount and complexity of air pollution due to urbanization, industrial development, and motor vehicles created a threat to public health and welfare, two kinds of standards are set by EPA for NAAQS. Primary standards set limits to protect human health. Secondary standards protect plants and wildlife, thereby protecting public welfare in the long term.[128]

i. Criteria Pollutants.—The NAAQS standards are set individually for certain pollutants referred to as "criteria pollutants." The criteria pollutants include particulates (PM), sulfur dioxide, nitrogen dioxide (NO_2), carbon monoxide (CO), photochemical oxidants (smog) measured as ozone, and lead. Additionally, there are control measures for volatile organic compounds (VOCs) in the SIPs to control smog.[129]

ii. Attainment and Nonattainment Areas.—If a geographical region meets the standard for a criteria pollutant, it is a Prevention of Significant Deterioration area or "attainment" area for that pollutant. If a region does not meet the standard for that criteria pollutant, it is a "nonattainment" area. Both areas are required to create state SIPs for maintaining or achieving the NAAQS.[130]

Attainment areas have lesser standards for emissions controls, under the premise that the area already has good air quality. However, these areas are required to maintain the NAAQS by implementing air pollution controls within the region.[131] Under the Act, an attainment area is required to have programs in place for the enforcement and regulation of emissions from stationary sources. This includes programs to regulate the modification or construction of any source within the area. Permit programs are required for such sources and must contain adequate provisions to prohibit any emissions activity that will interfere with the maintenance of the NAAQS.[132]

Nonattainment areas are required to meet the NAAQS within a specified timeframe.[133] The timeframe is dependent upon the pollutant of concern and the severity of air pollution within that region.[134] The Act specifies some emissions controls that must be put in place in nonattainment areas, such as vapor recovery controls on gasoline pumps and vehicle inspection programs. State and local governments must work together to implement additional programs if air pollution modeling indicates that NAAQS standards will not be met using only mandated programs. As expected, areas with more serious air pollution problems will need to use the most severe air pollution control programs to meet attainment.[135]

Governors from each state are required to prepare an accounting of all areas within the state in relation to emission for a criteria pollutant, within 1 year following the promulgation of any new NAAQS. The EPA then formally designates and classifies each of the areas. States do have the opportunity to contest the designation of areas within their state if they so choose.[136]

Following publication of the list, EPA may notify a state that it is being considered for redesignation. States may also submit redesignation requests to the EPA for approval.[137] Redesignation must be based on air quality data, planning and control considerations, or any other air quality-related considerations the EPA Administrator considers appropriate.[138] However, redesignation from a nonattainment area to an attainment area is not just a matter of meeting NAAQS. To redesignate an area as attainment, the following criteria must be met:[139]

(1) The EPA Administrator must determine that the area has attained the NAAQS;

(2) The Administrator must have fully approved the applicable SIP;

(3) The Administrator must determine that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from

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[123] *Id.*; Reitz I, at 5.
[124] 42 U.S.C. §§ 7408(e) and (f).
[125] *Id.*
[126] 42 U.S.C. § 7405.
[127] 42 U.S.C. § 7506.
[128] 42 U.S.C. § 7409; COMMERCE CLEARING HOUSE, INC., *supra* note 119, at 7.
[129] Reitze I, at 4.
[130] 42 U.S.C. § 7410(a)(1).
[131] 42 U.S.C. § 7470(i).
[132] 42 U.S.C. § 7475.
[133] 42 U.S.C. § 7502(a)(2).
[134] 42 U.S.C. § 7502(a)(1).
[135] Reitze I, at 5.
[136] 42 U.S.C. § 7407(d).
[137] *Id.*
[138] 42 U.S.C. § 7407(d)(3)(A).
[139] 42 U.S.C. § 7407(d)(3)(E).

implementation of the applicable SIP and applicable federal air pollutant control regulations and other permanent and enforceable reductions;

(4) The Administrator must have fully approved a maintenance plan for the area meeting the requirements of Section 175A of the Act; and,

(5) The state containing the area in question must have met all applicable requirements of Section 110 of the Act.

In February 2001 in *Whitman v. American Trucking Association, Inc.*,[140] the U.S. Supreme Court unanimously upheld the EPA's revised ozone NAAQS, and agreed with EPA that it could not consider costs when promulgating CAA regulations. The Court upheld the D.C. Circuit's rejection of industry arguments and held that EPA was required to follow Congress's statutory mandate that air quality standards be set at a level "requisite to protect the public health" with "an adequate margin of safety."[141]

b. SIPs

SIPs are plans that provide for the implementation, maintenance, and enforcement of primary standards for criteria pollutants (NAAQS) in each air quality control region.[142] SIPs are expected to provide for the expeditious attainment of air quality standards, contain a program for enforcing emissions limitations, prohibit emissions from stationary sources that would prevent attainment of air quality standards, and otherwise include the elements set forth in the Act.[143] If a state does not complete a plan that complies with all requirements of Section 110 of the Act, then the federal government may step in and implement a Federal implementation plan, or FIP.[144]

SIPs are the target of revisions due to changes in state or state-implemented federal standards or to insure that reasonable further progress is being maintained to achieve attainment. Revisions, like the original SIP, require approval by the EPA before becoming fully implemented.[145]

Classification of nonattainment areas takes place with respect to each NAAQS that has not been met in that area based on the severity of the pollution in the area.[146] Classifications are determined by EPA based on a "design value" measured in parts per million (ppm) of the criteria pollutant considered. The higher the design value assigned by EPA, the longer an area has to comply with the NAAQS. The categories of classification for ozone and carbon monoxide are discussed here.

i. Ozone Nonattainment.—There are five classifications of ozone nonattainment.[147] The area defined as "extreme" has a design value greater than .280 ppm of ozone and has been given 20 years (until 2010) to come into attainment with the ozone NAAQS.[148]

There are two classifications of severe—"severe 1" and "severe 2." Severe 2 areas have design values between .190 and .280 ppm. These areas are expected to attain the standard in 17 years (by 2007). Severe 1 areas have design values up to .190 ppm. Severe 1 areas are expected to attain the standard in 15 years (by 2005).[149] If any severe area fails to attain the standards when expected, the area must show it meets required reductions in each 3-year interval after that date.[150]

"Serious" areas have design values up to 0.18 ppm. These areas were required to attain the NAAQS in 9 years (by 1999).[151] The areas were required to submit SIP revisions to EPA by November 15, 1994, that demonstrated VOC reductions averaging 3 percent per year when averaged over each consecutive 3-year period, starting with November 15, 1996. Failure to meet the NAAQS by the deadline should have resulted in the area being reclassified as "severe," and thus obligated to meet the requirements of that classification.[152]

"Moderate" areas have a design value up to 0.160 ppm. These areas were required to attain the NAAQS in 6 years (by 1996).[153] The areas were required to submit SIP revisions by November 15, 1993, that demonstrated reasonable further progress toward attaining the standards.[154] The CAA indicated that a failure to meet the NAAQS by the deadline should result in the area being reclassified as "serious," and thus obligated to meet the requirements of that classification.[155]

"Marginal" areas have a design value of up to 0.138 ppm. These areas were required to attain the standard in 3 years (by 1993).[156] SIP revisions were required immediately after the enactment of the 1990 amendments to the Act and included more stringent reasonably available control technology (RACT) requirements.[157] The CAA indicated that a failure to meet the NAAQS by the deadline should result in the area being reclassified as "moderate," and thus obligated to meet the requirements of that classification.[158]

[140] 121 S. Ct. 903, 531 U.S. 457 (2001).
[141] 121 S. Ct. 912–14.
[142] 42 U.S.C. § 7410(a)(1).
[143] 42 U.S.C. § 7410(a)(2); Reitze I, at 4.
[144] 42 U.S.C. § 7410(c).
[145] 42 U.S.C. § 7410(k).
[146] 42 U.S.C. § 7502(a)(1).
[147] 42 U.S.C. § 7511(a).
[148] *Id.*
[149] *Id.*
[150] 42 U.S.C. § 7511(b)(4).
[151] 42 U.S.C. § 7511(a).
[152] 42 U.S.C. § 7511(b).
[153] 42 U.S.C. § 7511(a).
[154] 42 U.S.C. § 7511a(b).
[155] 42 U.S.C. § 7511(b).
[156] 42 U.S.C. § 7511(a).
[157] 42 U.S.C. § 7511a(a).
[158] 42 U.S.C. § 7511(b).

It is important to note two things: First, the CAA indicates that areas may be given extensions if they do not meet their attainment deadline but only had one ozone exceedance in the past year. However, no more than two 1-year extensions may be given under that provision.[159] Second, an area must meet not only the requirements of its own classification but also all of the requirements of lower classifications.[160] Further discussion of the requirements of each classification as they relate to transportation planning will follow elsewhere in this section.

ii. Carbon Monoxide Nonattainment.—The NAAQS standard set for CO is an 8-hour standard of 9 ppm. Areas are classified as either "serious" or "moderate."[161]

Serious areas have a design value of 16.5 ppm or higher. These areas were required to attain the standards by the last day of 2000.[162] These areas were required to submit data to EPA by March 31, 1996, demonstrating they had achieved CO emission reductions equal to the total annual emissions reductions required by the end of 1995.[163]

Moderate areas have a design value of up to 16.4 ppm. These areas were given 5 years, or until the last day of 1995, to attain the standards. An area that did not could be given an extension year as for an ozone area.[164] However, if it still did not attain the NAAQS, the area would be redesignated as "serious."[165]

iii. Sanctions for Missing or Inadequate SIPs.—Under Section 179 of the Act, the EPA can impose sanctions against a state that fails to submit a revised SIP, submits an SIP that EPA disapproves of, or fails to implement an approved SIP. Once the EPA has made one of these findings, the state has 18 months to remedy the situation, or the EPA may begin to impose sanctions.[166]

Two sanctions are available under Section 179 of the Act if a state's failure to meet requirements continues. Emission offset requirements for new or modified sources in the state can be increased from a 1 to 1 ratio to 2 to 1. Under the higher ratio, for every increase in emissions from a new or modified source, there must be a similar decrease of twice that amount of emissions.[167]

The sanction that directly affects transportation planning is highway sanctions. The EPA may prohibit any transportation projects or grants under 23 U.S.C. § 134 in a state that is noncompliant with the CAA requirements pertaining to SIPs. There is an exception for those projects having a principal purpose of safety improvements to resolve a demonstrated safety problem. Also, any projects that will result in air quality improvements cannot be prohibited.[168]

An additional sanction that the EPA can use is to cut off funding to the state for air pollution and control programs under the Act. The EPA has the right to withhold all or part of the applicable funding.[169]

iv. Planning Procedures for SIPs.—Section 174 of the Act, as revised by the 1990 Amendments, requires that SIP planning include representatives from various groups in the affected area. They require that SIPs be planned by state, local, and regional officials, including state transportation planners. Also, the air quality planning process must be coordinated with transportation planning for the use of TCMs.[170]

c. Trans-Boundary Mobile Source Pollution

It has long been known that certain pollution, such as ozone precursors, can travel far from their sources, creating air pollution problems in other areas. Section 110(a)(2)(D) of the Act addresses the problem of trans-boundary pollution by requiring SIPs to contain provisions prohibiting emissions that will “contribute significantly to non-attainment in another state or interfere with another state’s SIP attainment measurers.”[171] Section 184 of the Act further addressed this problem by creating an "ozone transport region" for the Northeast.[172] The states in this region were required to submit SIPs that included an enhanced vehicle inspection and maintenance program in areas with populations over 100,000 and RACT technology for VOC sources included in EPA's control technology guidelines (CTGs). Additionally, stationary sources that emit 50 tons per year or more of VOCs were to be considered major sources for the purposes of control requirements.[173]

2. Transportation Control Measures

a. Introduction

TCMs include a wide variety of methods used to reduce motor vehicle emissions, primarily by improving the efficiency of the transportation system and by reducing the total number of vehicle miles traveled (VMT) in an area. Examples of TCMs include mass transit improvements, ride sharing arrangements, telecommuting and work schedule changes, parking management, and roadway tolls. As the greatest emissions from a car trip occur during the first 15 minutes the car is running, emissions benefits are also realized by eliminating or reducing short trips.[174]

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[159] 42 U.S.C. § 7511(a).
[160] 42 U.S.C. § 7511a.
[161] 42 U.S.C. § 7512(a).
[162] *Id.*
[163] 42 U.S.C. § 7512a(d).
[164] 42 U.S.C. § 7512(a).
[165] 42 U.S.C. § 7512(b).
[166] 42 U.S.C. § 7509(a).
[167] 42 U.S.C. § 7509(b).
[168] *Id.*
[169] *Id.*
[170] 42 U.S.C. § 7504(a).
[171] 42 U.S.C. § 7410(a)(2)(D); *see* Southwestern Pennsylvania Growth Alliance v. EPA, 46 ENVTL. REP. CASES 1609 (6th Cir. 1998).
[172] 42 U.S.C. § 7511c(a).
[173] 42 U.S.C. § 7511c(b).
[174] U.S. ENVTL. PROTECTION AGENCY, EPA 420-F-97-021, TRANSPORTATION CONTROL MEASURES (1997).

As mentioned above, SIPs are to be coordinated with a continuing, cooperative, and comprehensive transportation planning process as part of the air quality planning process. Furthermore, most ozone and carbon monoxide attainment areas were required to include in their SIPs an inspection and maintenance program for motor vehicles.[175]

The CAA, as amended in 1990, includes a suggested list of TCMs to be considered during SIP revisions.[176] Also, for those states or areas falling under certain categories of nonattainment for CO or photochemical oxidants, there are various requirements of transportation-related emissions reduction measures to be implemented.[177]

b. General TCMs

Section 108(f) of the CAA lists 16 TCMs that may be used in SIPs.[178] This list is not exhaustive, however, as new TCMs with emissions benefits are always being investigated, studied, and used. The EPA is required to prepare information regarding the use of TCMs and provide it through publications and notices to federal, state, and local environmental and transportation agencies. The EPA must provide the formulation and emission reduction potential of TCMs related to criteria pollutants and their precursors.[179]

The following is a list of the 16 TCMs defined in the CAA:[180]

1. programs for improved public transit;
2. restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles;
3. employer-based transportation management plans, including incentives;
4. trip-reduction ordinances;
5. traffic flow improvement programs that achieve emissions reductions;
6. fringe and transportation corridor parking facilities serving multiple occupancy vehicle programs or transit service;
7. programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration, particularly during periods of peak use;
8. programs for the provision of all forms of high occupancy, shared-ride services;
9. programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of nonmotorized vehicles or pedestrian use, both as to time and place;
10. programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas;
11. programs to control extended idling of vehicles;
12. programs to reduce motor vehicle emissions, consistent with Title II, which are caused by extreme cold start conditions;
13. employer-sponsored programs to permit flexible work schedules;
14. programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single occupant vehicle travel, as part of a transportation planning and development effort of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity;
15. programs for new construction and major reconstruction of paths, tracks or areas solely for use by pedestrian or other nonmotorized means of transportation when economically feasible and in the public interest. For the purpose of this clause, the administrator shall also consult with the Secretary of the Interior; and
16. program to encourage the voluntary removal from use and marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks.

c. Economic Incentives Programs

Economic incentives play a great role in the choice of TCMs. For example, reduced rates for multiple occupant vehicle parking can provide an incentive for people to use those modes of travel. Congestion pricing is another example of a market-based incentive strategy whereby there is a higher charge to use a particular stretch of road during peak travel times. As a result, transit and ride sharing are given an economic incentive compared to solo driving; consequently, more people are expected to choose those ways of traveling, thereby reducing emissions.[181]

On April 7, 1994, the EPA issued its final rules for economic incentive programs.[182] Pursuant to the 1990 CAA, certain nonattainment areas were required to meet milestones, or reductions in emissions corresponding to requirements in Section 182 of the CAA. Extreme ozone nonattainment areas that did not submit milestone compliance demonstrations within the required period, or did not meet the applicable milestone, were required to submit an economic incentive program plan within 9 months after such failure determination. The plans are required to be sufficient in combination with the other elements of the SIP to achieve the next milestone.[183]

Serious carbon monoxide nonattainment areas that did not demonstrate achievement of the milestone within the required period, or could not meet the reduction milestone, were also required to submit economic incentive program plans. Additionally, those areas for which NAAQS had not been attained by the applicable date for that area were also required to

[175] 42 U.S.C. § 7511a and 42 U.S.C. § 7512a.
[176] 42 U.S.C. § 7408(f).
[177] 42 U.S.C. § 7511a and 42 U.S.C. § 7512a.
[178] 42 U.S.C. § 7408(f).
[179] *Id.*
[180] *Id.*
[181] U.S. ENVTL. PROTECTION AGENCY, *supra* note 174.
[182] 59 Fed. Reg. 16710 (1994).
[183] 42 U.S.C. § 7511a(g).

submit a plan revision to implement an economic incentive and transportation control program within 9 months after such failure or determination.[184] Submittals made by the serious CO attainment areas were required to be sufficient to achieve the specified annual reduction in CO emissions.[185] Additionally, any SIP revisions submitted in response to the failure to meet NAAQS by the applicable date were required to reduce the total tonnage of emissions of carbon monoxide in the area by at least five percent per year for each year after approval of the planned revision and before attainment of the NAAQS for carbon monoxide.[186]

Serious and severe ozone nonattainment areas may also elect to implement an economic incentive program plan in accordance with the requirements of the EPA rule. If a state elects to do such a plan it should be sufficient in combination with other elements of the SIP to achieve the next milestone.[187]

All other nonattainment or attainment areas may at any time submit a plan or plan revision to implement a discretionary economic incentive program in accordance with requirements of the EPA rules. However, the SIP revisions should not interfere with any applicable requirements concerning attainment and reasonable further progress or any other applicable requirements of the CAA.[188]

Economic incentive program plans must include the following elements:[189]

- Statement of goals and rationale.
- Program scope.
- Program baseline.
- Replicable emissions quantification methods.
- Source requirements.
- Projected results and audit/reconciliation procedure.
- Implementation schedule.
- Administrative procedures.
- Enforcement mechanisms.

The EPA rules suggest methods for possible quantification of TCM emissions benefits. For example, the rules set out methods for establishing initial baselines for TCMs by establishing the pre-existing conditions in the areas of interest.[190] Additionally, ways to quantify emissions reductions accounting for travel-mode choice options are also discussed.[191]

As part of the economic incentive program, some revenues may be generated. These revenues are an additional benefit to the locality enforcing the program. The revenues may be placed back into the program; however, no more than 50 percent of the revenues generated may be used for administrative costs of the program.[192]

d. Delaney v. EPA and Subsequent Interpretation of Whether Action is "Reasonably Available"

CAA Section 108(f) and its implementation was the subject of litigation in *Delaney v. EPA*.[193] One of the most important issues in the case was whether in adopting its SIP, an area could reject those TCMs it deemed not to be reasonably available, or whether instead all control measures listed must be used. Plaintiffs challenged EPA's approval of a SIP that allegedly failed to provide sufficient control measures. In light of prior EPA guidance and interpretation of this requirement, which created a presumption that all TCMS would be available, the court held that EPA had in this case:

> arbitrarily shifted from Arizona the burden of demonstrating that control measures would not accelerate the projected attainment date. An EPA guidance document explicitly provides that each of the 18 measures listed in 42 U.S.C. § 7408 is presumed reasonably available; a state can reject one of these measures only by showing that the measure would not advance attainment, would cause substantial widespread and long-term adverse impact, or would take too long to implement.[194]

The court further concluded that nonattainment areas that had received deadline extensions prior to the 1990 CAA amendments were required to implement not only all reasonably available control measures, but also any additional measures necessary to ensure timely attainment.[195]

Delaney, however, was decided before the 1990 Amendments to the CAA. The EPA later changed its interpretation of "reasonably available control measures" to acknowledge that variations in local circumstances made it "inappropriate to presume that all Section 108(f) measurers are reasonably available in all areas."[196] Thus current EPA guidance eliminates the presumption that all TCMs are reasonably available.[197] EPA's interpretation was upheld by the Ninth Circuit Court of Appeals in *Ober v. U.S. EPA*.[198]

e. Implementation of Control Measurers through the TIP

Reasonably available control measures identified in the SIP must be identified for implementation in a timely fashion through applicable TIPs. Section 176(c)(2)(B) of the Act provides that no MPO or other recipient of FHWA or Urban Mass Transportation Act (UMTA) funds "shall adopt or approve a transportation improvement program of projects until it determines

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[184] 42 U.S.C. § 7512a(d)(3).
[185] *Id.*
[186] 42 U.S.C. § 7512a(g).
[187] 42 U.S.C. § 7511a(g).
[188] 40 C.F.R. § 51.492(d). EPA has published guidance for discretionary economic incentive programs: U.S. ENVTL. PROTECTION AGENCY, EPA-452/R-01-001, IMPROVING AIR QUALITY WITH ECONOMIC INCENTIVE PROGRAMS (2001).
[189] 40 C.F.R. § 51.493.
[190] 40 C.F.R. § 51.493(c)(6).
[191] 40 C.F.R. § 51.493(d)(5).
[192] 40 C.F.R. § 51.494.
[193] 898 F.2d 687 (9th Cir.), *cert. denied,* 498 U.S. 998 (1990).
[194] *Id.* at 692.
[195] See discussion in Reitze I, at 6–7.
[196] 57 Fed. Reg. 13,498 at 13560 (1992).
[197] *Id.*
[198] 84 F.3d 304 (9th Cir. 1996).

that such program provides for timely implementation of TCMs consistent with schedules included in the applicable implementation plan."[199] This provision explicitly commits the planning jurisdiction to putting forward for implementation all TCMs needed to achieve SIP goals as part of its overall plan of transportation improvements.

f. Motor Vehicle Inspection and Maintenance

Another transportation-related emissions control measure is the motor vehicle inspection and maintenance program. The program may include tailpipe emissions testing to determine if the vehicle has any problems related to misfueling or an improperly functioning emissions control device. Although this program has been in use for many years, the CAA Amendments of 1990 required that the program be started in some areas that did not already have it and that those programs that had already been implemented be upgraded.[200]

The EPA was required to submit new guidance for motor vehicle inspection and maintenance programs within 12 months after the date of enactment of the CAA Amendments of 1990. The guidance was to cover the frequency of inspections, the types of vehicles to be inspected, vehicles' maintenance by owners and operators, audits by the states, test method and measures, and other requirements. The guidance was to be incorporated into the applicable SIPs required by the states.[201] The EPA in fact did not promulgate final regulations until November 5, 1992.[202] These requirements can be found at 40 C.F.R. Part 51, Subpart S.

An enhanced vehicle inspection and maintenance program is required for urbanized areas with a population of 200,000 or more that are in serious, severe, or extreme classifications for ozone nonattainment.[203] Enhanced inspection and maintenance requires inspections to be performed while the vehicle is undergoing simulated driving conditions. This testing is used to determine whether emissions controls, including nitrogen oxide controls, are performing properly.[204]

The program must include inspections of computerized emissions analyzers as well as enforcement. If the state already has an effective existing enforcement program, that program may be used. If not, then vehicle registration denial is required as the enforcement program. The program also includes annual emissions testing unless a state can prove that a biennial inspection is at least as effective.[205]

Additionally, the state programs must include administrative features necessary to reasonably assure that adequate management resources, tools, and practices are in place to attain and maintain the performance standard program.[206] Under Section 182 of the CAA, the state programs were required to include, at a minimum, the following:[207]

- Computerized emission analyzers, including on-road testing devices.
- No waivers for vehicles or parts covered by the emission control performance warranty or for tampering related repairs.
- An expenditure to qualify for a waiver in a specified amount for such repairs as permitted and necessary to control emissions, but not covered by warranty.
- Enforcement through the denial of a vehicle registration unless a more effective enforcement program has already been demonstrated.
- Annual emission testing and necessary adjustment, repair, and maintenance unless the state can demonstrate that biennial inspection will result in equal to or greater emission reductions.
- Centralized program operation, unless the state can demonstrate that a decentralized program will be equally effective. Examples include electronically connected testing system, a licensing system, or other measures.
- Inspection of emissions control diagnostic systems and the maintenance or repair of these systems.

Each state is required to prepare a biennial report to the EPA that quantifies the emission reductions achieved by such program. It should be based on the data collected during the inspection and repair of vehicles in the state.[208]

g. Transportation-Related Provisions Applicable to Ozone Nonattainment Areas

Marginal areas are only required to submit an inspection and maintenance program within their SIP if required by the CAA prior to the 1990 amendment.[209] Moderate areas, however, are required to use an inspection and maintenance program.[210] Moderate areas are also required to implement gasoline vapor recovery systems. These systems recover emissions from the fueling of motor vehicles. The requirement applies only to facilities that sell more than 10,000 gallons of gasoline per month or 50,000 gallons per month in the case of an independent small business marketer of gasoline.[211]

Serious areas are required to meet the requirements of moderate areas. Additionally, these areas are required to include an enhanced inspection and maintenance program in a revised SIP.[212]

Beginning in 1996, each serious ozone nonattainment area was required to submit a demonstration as to

[199] 42 U.S.C. § 7506(c)(2)(B).
[200] COMMERCE CLEARINGHOUSE, INC., *supra* note 119, at 10.
[201] 42 U.S.C. § 7511a(a)(2).
[202] 57 Fed. Reg. 52987 (1992).
[203] 40 C.F.R. § 51.350.
[204] Reitze I, at 8.
[205] 42 U.S.C. § 7511a(c)(3).
[206] 40 C.F.R. § 51.354.
[207] 42 U.S.C. § 7511a(c)(3)(c).
[208] *Id.*
[209] 42 U.S.C. § 7511a(a)(2).
[210] 42 U.S.C. § 7511a(b)(4).
[211] 42 U.S.C. § 7511a(b)(3).
[212] 42 U.S.C. § 7511a(c).

whether current aggregate vehicle mileage, aggregate vehicle emissions, congestion levels, and other relevant parameters are consistent with those used for the area's demonstration of attainment. Where those parameters and emission levels exceeded the levels projected for the area's attainment demonstration, the state had 18 months to develop and submit a revision of the applicable SIP that included TCMs, including but not limited to those listed in Section 108(f). When considering TCMs, states are required to ensure adequate access to downtown, commercial, and residential areas and avoid measures that increase or relocate emissions and congestion rather than reduce them. States are required to resubmit these reports every 3 years.[213]

In terms of inspection and maintenance programs, all severe areas are required to use standards at least as stringent as those for serious areas.[214] Severe ozone nonattainment areas were required to submit SIP revisions by 1992 that identify and adopt TCMs to offset growth, emissions from growth, and vehicle trips or vehicle miles traveled. States were required to consider the TCMs specified in Section 108(f) and choose from and implement these measures as necessary to demonstrate attainment with NAAQS. States were required to consider and ensure adequate access to downtown, commercial, and residential areas and avoid measures that increased or relocated emissions and congestion.[215]

Extreme areas must meet severe area requirements for inspection and maintenance and occupancy TCMs.[216] Furthermore, each implementation plan revision must contain provisions establishing TCMs applicable during heavy traffic hours to reduce the use of high polluting vehicles or heavy duty vehicles.[217]

h. Transportation-Related Provisions Applicable to CO Nonattainment Areas

All CO nonattainment areas are required to have inspection and maintenance programs.[218] Any area with a design value above 12.7 ppm (which could include some moderate areas and all serious areas) is required to include in its SIP revision a forecast of vehicle miles traveled in the nonattainment area for each year before NAAQS's attainment. The state must provide annual updates of these forecasts along with annual reports regarding the extent to which forecasts are accurate. If any estimate of vehicle miles traveled in the area submitted in an annual report exceeds the number of miles predicted in the most recent prior forecast, or if the area fails to maintain the NAAQS for CO by the specified attainment date, the SIP must be revised to provide for implementation of specific measures. Such measures must be included in the SIP as contingency measures to take effect without further action by the state or EPA if necessary.[219]

Additionally all areas with a design value greater than 12.7 ppm must include the same provisions for enhanced vehicle inspection and maintenance programs as those required for serious ozone nonattainment areas. However, each program shall be for the purpose of reducing CO rather than hydrocarbon or ozone precursor emissions.[220]

3. Conformity

a. Introduction

Conformity is a CAA requirement for transportation activities in states with SIPs. Section 176 of the CAA states: "No department, agency, or instrumentality of the federal government shall engage in, support in any way or provide financial assistance for, license or permit, or approve, any activity which does not conform to an implementation plan after it has been approved or promulgated under Section 110."[221]

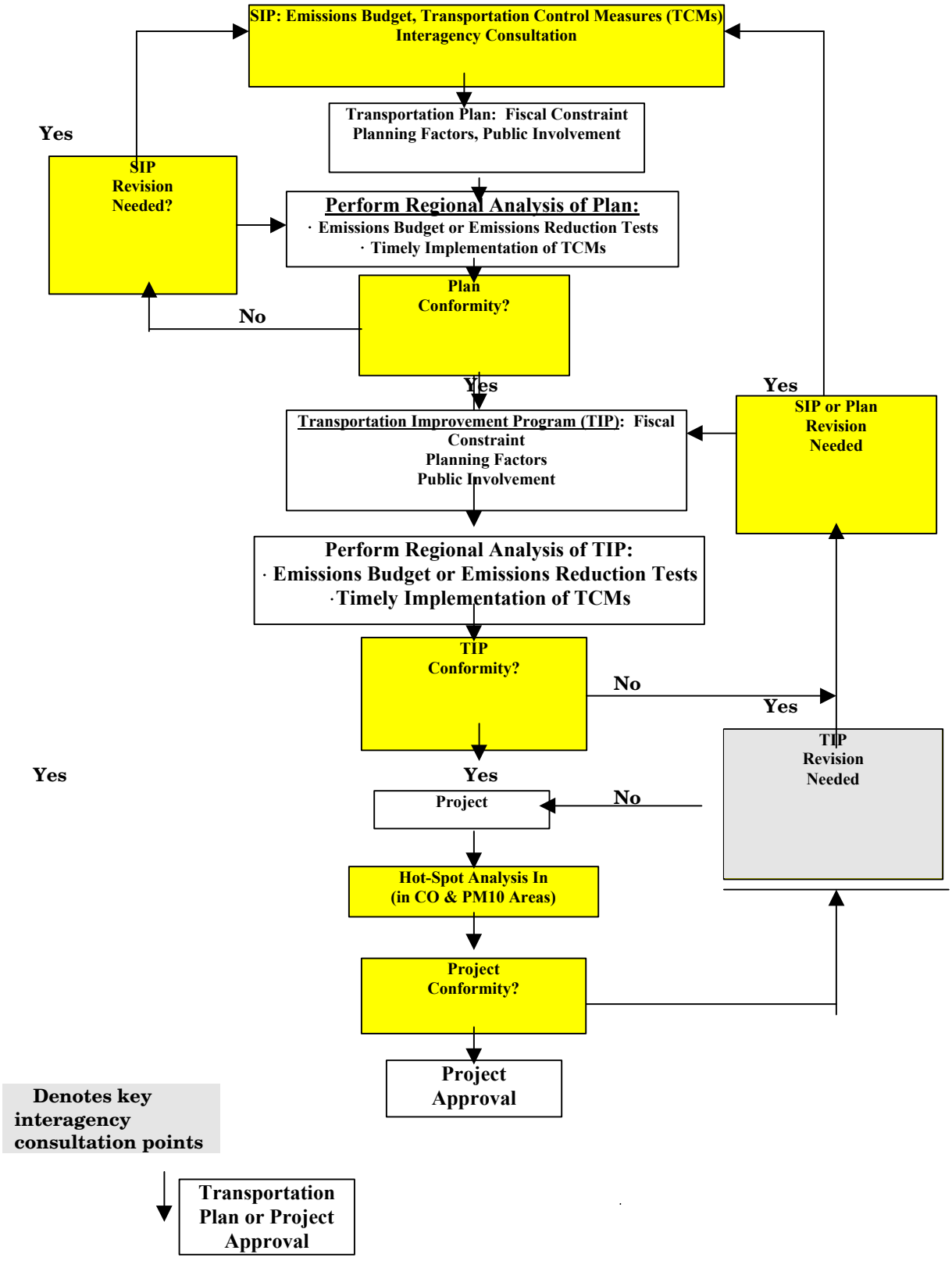
It further provides that "[n]o Federal agency may approve, accept or fund any transportation plan, program or project unless such plan, program or project has been found to conform to any applicable implementation plan in effect…."[222]

In short, transportation activities cannot be federally funded or approved unless they are consistent with the state's air quality goals.[223] Transportation conformity is a means to ensure that transportation activities do not conflict with the purpose of the SIP, namely, to comply with the NAAQS. Review for conformity is the mechanism established to ensure that the projected emissions that will result from the implementation of transportation projects, including any TCMs identified in a transportation plan or TIP, are consistent with the emissions estimates and schedule of emissions set forth in the applicable SIP. The EPA has interpreted conformity to mean that transportation activities must not cause or contribute to new violations, worsen existing violations, or delay attainment of air quality standards.[224] The EPA and the DOT work together to determine whether transportation activities conform to the SIPs.[225] The original transportation conformity rule was published in 1993[226] and amended in 1997.[227] The conformity regulations are discussed further in this

[213] 42 U.S.C. § 7511a(c)(5).
[214] 42 U.S.C. § 7511a(d).
[215] 42 U.S.C. § 7511a(d)(1).
[216] 42 U.S.C. § 7511a(e).
[217] 42 U.S.C. § 7511a(e)(4).
[218] 42 U.S.C. § 7512a.
[219] 42 U.S.C. § 7512a(a)(3).
[220] 42 U.S.C. § 7512a(a)(5).
[221] 42 U.S.C. § 7506(c)(1).
[222] 42 U.S.C. § 7506(c)(2).
[223] For a useful resource on conformity requirements under the CAA, see *Transportation Conformity: A Basic Guide for State and Local Offices* (FHWA, 1997; revised June 19, 2000), available at http://www.fhwa.dot.gov/environment/genrlenv.htm.
[224] *Id.*
[225] 42 U.S.C. § 7506(c)(4).
[226] *See* 58 Fed. Reg. 63247 (1993), as codified in 40 C.F.R. pts. 51 and 93.
[227] 62 Fed. Reg. 43780 (1997).

section. In addition, ISTEA and TEA-21 contain metropolitan planning provisions designed to complement the CAA conformity provisions. These provisions require MPOs to explicitly demonstrate that the anticipated emissions that result from implementing transportation plans, programs, and projects are consistent with and conform to the purpose of the SIP for air quality. The Transportation Conformity Process Flowchart on the following page indicates the key components of the transportation conformity process.

TRANSPORTATION CONFORMITY PROCESS



Source: Federal Highway Administration
Transportation Conformity Reference Guide
Part III, Ex. 7

b. Transportation Plans and TIPs

Conformity review takes place for each transportation plan and TIP. As part of the statutory and regulatory requirement that urban areas have a continuous, cooperative, and comprehensive transportation planning process, each urban area must develop both a transportation plan for 20-year planning and a TIP for planning in a 3-year period. Transportation plans are long-range 20-year plans for entire transportation systems. Included in the transportation plan are policies, strategies, and facilities to accommodate current as well as future travel demands. The MPO uses the transportation plan to develop the TIP and update it at least every 2 years. The TIP is a combined effort by the MPO and the state Governor that lists specific highway and transit projects to be advanced over a 3-year period. Based on each MPO's TIP, a state prepares an annual statewide program of projects that it proposes to the DOT for federal assistance. Conforming TIPs must provide for timely implementation of TCMs consistent with schedules in the SIP.[228]

c. Project Level Conformity

Individual transportation projects may be approved by the state DOT and put forward for federal funding only if they meet conformity requirements. As set forth in Section 176 of the Act, there are three requirements in this regard. The first requirement is that the transportation project come from a conforming plan and program. Second, the design concept and scope of the transportation project must not have changed significantly since the conformity finding regarding the transportation plan and program from which the transportation project was derived. Third, the design concept and scope of such transportation project at the time of the conformity determination for the transportation program must be adequate to determine emissions. If the transportation project does not meet these three criteria, the projected emissions from the project, when considered together with emissions projected for the conforming transportation plans and programs within the area, cannot cause the plan and program to exceed the emissions budget in the SIP.[229]

d. Conformity Determinations

The MPO and U.S. DOT (FHWA/FTA) are responsible for determining that the transportation plan and program within the metropolitan boundaries conform to the SIP. The governing board of each MPO makes a formal conformity determination on its transportation plan/TIP prior to submitting them to the U.S. DOT for review and approval. For projects outside of the metropolitan boundaries, the U.S. DOT and the project sponsor (usually the state DOT) are responsible for making the conformity determination.

e. Scope of Transportation Conformity Requirement

The National Highway System Designation Act of 1995[230] limited transportation conformity to nonattainment and maintenance areas.[231] Specifically, it applies to all EPA-designated nonattainment areas for transportation-related criteria pollutants and maintenance areas for transportation-related criteria pollutants for 20 years from the date EPA approves the state's request for redesignation as a maintenance area.

f. Timing and Frequency of Transportation Conformity Determination

Conformity must be determined prior to the approval by the MPO or acceptance by the DOT of new transportation plans/TIPs or plan TIP amendments, and prior to federal approval or funding of projects. The MPO and DOT must determine the conformity of the transportation plan/TIP no less frequently than every 3 years. Otherwise the existing conformity determination will lapse. The 3-year time period is counted from the date the DOT makes the conformity determination on the MPO plan or TIP. After an MPO adopts a new or revised transportation plan, conformity of the TIP must be redetermined by the MPO and DOT within 6 months from the date of the DOT's conformity determination for the transportation plan. Otherwise, the existing conformity determination will lapse.[232]

Conformity of existing transportation plans and TIPs must be redetermined within 18 months of (1) the date of initial SIP submission establishing motor vehicle emissions budget(s); (2) EPA approval of a SIP that creates or revises a budget; (3) EPA approval of a SIP that adds, deletes, or changes TCMs; and (4) EPA promulgation of a FIP that creates or revises a budget or adds, deletes, or changes TCMs.[233]

g. Conformity Regulations

i. Determining Conformity of General Federal Actions to State or Federal Implementation Plans.—The EPA originally promulgated regulations for conformity determinations of federal actions in 1993. These regulations were updated in August 1997.[234] The 1993 rule amended 40 C.F.R. Part 51 by adding Subpart W, which requires states to revise their SIPS to include conformity requirements.

The 1997 amendments to these regulations specifically addressed federal actions related to transportation plans, programs, and projects developed, funded, or approved under Title 23 U.S.C. or the

[228] 42 U.S.C. § 7506(c)(2)(B).

[229] 42 U.S.C. § 7506(c)(2)(C)-(D).

[230] 23 U.S.C. §§ 101–28.

[231] A 'maintenance area" is any geographic region of the United States previously designated nonattainment pursuant to the CAA amendments of 1990 and later redesignated to attainment subject to the requirement that a maintenance plan be developed pursuant to § 175A of the CAA, as amended. *See* 40 C.F.R. § 93.101, as amended (July 1, 2001).

[232] 40 C.F.R. § 93.104.

[233] *Id*.

[234] 62 Fed. Reg. 43779-43818 (1997).

Federal Transit Act, and required these projects to meet the criteria specified in Subpart T of 40 C.F.R. Part 51 rather than those set forth in Subpart W.[235] Subpart T in turn requires states to revise their SIPs to include criteria and procedures for assessing the conformity of transportation plans, programs, and projects using the procedures and criteria set out at 40 C.F.R. Part 93, Subpart A.[236] These requirements are discussed in more detail below. Federal actions affecting transportation agencies that are not related to plans, programs, or projects developed, funded or approved under Title 23 U.S.C. or the Federal Transit Act would be subject to the conformity requirements for general federal actions.

The EPA conformity regulations for general federal actions in 40 C.F.R. Part 51, Subpart W are premised on the general requirement that "[n]o department, agency or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan."[237] The regulations require that each state submit SIP revisions to the EPA that contain criteria and procedures for assessing the conformity of federal actions.[238] The conformity rules included in the regulation are used in addition to any existing applicable state requirements to establish the conformity criteria and procedures necessary to meet the CAA requirements until such time as a required SIP conformity revision is approved by EPA. Therefore, once all or any part of a state's conformity criteria are approved, the federal regulations would only apply to those parts of its SIP conformity provisions that have not been approved by the EPA.[239]

The Part 51, Subpart W conformity regulations set out thresholds for various pollutants in nonattainment or maintenance areas that, if equaled or exceeded, would require a conformity determination for any federal action other than those transportation projects subject to regulation under Subpart T.[240] Various actions are exempt from this subpart. In addition to those actions where the total emissions would be below the emission level specified in the regulations, actions that fall within generic categories of action expected to result in no emissions increase, or only a de minimis increase, are also exempt. Some examples of such exemptions are judicial and legislative proceedings, rulemaking and policy development and issuance, and certain land dispositions and transfers of ownership. Additional exemptions include those for actions that implement a decision to carry out a conforming program consistent with a conforming land management plan; alterations or additions of structures specifically required by environmental regulations; remedial and removal actions under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA);[241] and certain actions that are part of a continuing response to emergency or disaster.[242]

ii. Determining Conformity of Federal Transportation Actions with State or Federal Implementation Plans.—The regulations at 40 C.F.R. Part 93, Subpart A list criteria and procedures for determining the conformity of transportation plans, programs, and projects that receive funds under Title 23 U.S.C. or Federal Transit Laws. The applicable criteria for conformity determinations differ based on the action under review (for example transportation plans or federal highway projects), the relevant pollutants of concern, and the status of the implementation plan.[243] Additionally, criteria are established for ozone nonattainment and maintenance areas, CO nonattainment and maintenance areas, PM nonattainment and maintenance areas, NO_2 nonattainment and maintenance areas, and isolated rural nonattainment and maintenance areas.[244] Transportation agency planners and regulatory advisers should directly consult those sections of the regulation that pertain to them for specific requirements.

Certain conformity criteria are applicable to all federal transportation plans and projects. Any conformity determination must be based on the latest planning assumptions. Assumptions must be derived from the estimates of current and future population, employment travel, and congestion most recently developed by the MPO or other agencies. Transit operating policies and assumed transit ridership changes since any previous conformity determination must also be addressed. Assumptions about transit service and increases in fares and tolls should be included as part of the conformity determination. The most up-to-date information regarding the effectiveness of any TCM or any other SIP measure already implemented must also be used. Finally, any assumptions made during the analysis must be specified.[245] The conformity determination must be based on the latest emission estimation model available.[246]

iii. Regionally Significant Nonfederal Projects.—The Conformity Regulations provide that "no recipient of Federal funds designated under title 23 U.S.C. or the Federal Transit Laws shall adopt or approve a regionally significant highway or transit project, regardless of funding source" unless certain conformity criteria are met. A regionally significant project is defined as a project

> on a facility which serves regional transportation needs (such as access to and from the area outside the

[235] 40 C.F.R. § 51.853(a) (2001).
[236] 40 C.F.R. § 51.390.
[237] 40 C.F.R. § 51.850(a).
[238] 40 C.F.R. § 51.851(a).
[239] 40 C.F.R. § 51.851(b).
[240] 40 C.F.R. § 51.853(b).
[241] 42 U.S.C. § 9601 *et seq.* Pub. L. No. 96-510 (Dec. 11, 1980), 94 Stat. 2676.
[242] 40 C.F.R. § 51.853(c)-(e).
[243] 40 C.F.R. § 93.109(a).
[244] 40 C.F.R. § 93.109(c)-(g).
[245] 40 C.F.R. § 93.110.
[246] 40 C.F.R. § 93.111.

> region…major planned developments such as new retail malls, sports complexes, etc., or transportation terminals as well as most terminals themselves)…including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel.[247]

Specific criteria are set out for nonfederal projects in isolated rural nonattainment and maintenance areas.[248] Regionally significant nonfederal projects cannot be implemented until emissions impacts are included in the regional emission analysis. This further prevents federal projects from having to offset emission from previously constructed nonfederal projects.[249]

iv. Conformity Lapse and Freeze.—A conformity "lapse" means that the conformity determination for a transportation plan or TIP has expired, with the result that there is no currently conforming transportation plan or TIP.[250] The lapse occurs when an area fails to satisfy the frequency requirements discussed above for making a conformity determination. A disapproval of a SIP without a "protective finding" results in a "freeze" after EPA's final disapproval is effective.[251] A freeze prevents any new plan or TIP conformity findings from being made until the state submits a new SIP and EPA finds the motor vehicle emissions budgets adequate. A "protective finding" is a determination by EPA that a submitted plan contains adopted control measures or written commitments to adopt enforceable control measures that fully satisfy the applicable emissions reduction requirements.[252]

On March 2, 1999, the United States Court of Appeals for the District of Columbia Circuit issued a decision addressing and invalidating three key provisions of the 1997 Conformity Rule related to conformity lapse in response to a case brought by the Environmental Defense Fund.[253] These provisions allowed (1) grandfathered projects (previously conformed projects) to proceed during a conformity lapse; (2) certain regionally significant nonfederal projects to proceed during a conformity lapse; and (3) a conformity grace period for 120 days after EPA disapproval of a SIP without a protective finding. In May 1999 the EPA issued guidance to address implementation of conformity requirements consistent with the ruling. The agency has indicated that formal guidance and conformity rule amendments will be forthcoming.[254]

The D.C. Circuit Court of Appeals ruling in *Environmental Defense Fund* had the effect of ending the practice of allowing federally funded or approved highway and transit projects to proceed based on previous conformity determinations in regions where SIP conformity findings had lapsed. The court focused on two CAA requirements: (1) that regions demonstrate conformity at least once every 3 years, and (2) that transportation projects can receive federal funding only if they are derived from long-term plans that have demonstrated conformity within the 3-year period. The court ruled that (1) the so-called "grandfather" rule under 40 C.F.R. § 93.102(c)(1) violated the CAA because it allowed transportation projects to receive federal funding in the absence of a currently conforming plan and program;[255] (2) the provision under 40 C.F.R. § 93.121(a)(1) allowing certain regionally significant nonfederal projects to proceed during a conformity lapse if the project was included in the first 3 years of the most recently conforming transportation plan and TIP (or the conformity determination's regional emissions analyses) violated the CAA requirement that projects "come [ ] from a conforming plan and program;"[256] and (3) the provision under 40 C.F.R. § 93.120(a)(2) under which EPA allowed a conformity grace period for 120 days after its disapproval of a SIP without a protective finding violated the CAA's generally applicable conformity requirements.[257] The effect of this case was to put on hold highway projects that had been found to conform to an outdated SIP and were proceeding on that basis, even though conformity to a current SIP had not been established.

The EPA's guidance memo issued in May of 1999 clarifies the use of submitted mobile source emissions budgets to make a conformity determination. Additionally, the EPA published "Adequacy Status of Submitted State Implementation Plans for Transportation Conformity Purposes" on June 10, 1999, in the *Federal Register*.[258] The Environmental Protection Agency takes the position that only a SIP mobile source emission budget that has been found adequate can be used for further conformity determinations, while any SIP emissions budget found to be inadequate cannot be used for conformity determinations. Note that an adequacy review is separate from the EPA's completeness review, and cannot be used to prejudge EPA's ultimate approval of a SIP.[259]

Although the court's ruling in *Environmental Defense Fund* did not affect the general implementation of nonfederal projects, it did eliminate the flexibility from the 1997 amendments that had allowed nonfederal projects to be approved during a lapse if they were included in the first 3 years of the previously conforming transportation plan and TIP. The EPA stated in its May 14, 1999, guidance:

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[247] 40 C.F.R. § 93.101.

[248] 40 C.F.R. § 93.121(b).

[249] *Id.*

[250] 40 C.F.R. § 93.101.

[251] 40 C.F.R. § 93.120 (a)(2).

[252] 40 C.F.R. §§ 93.101; 93.120(a)(3).

[253] Environmental Defense Fund v. EPA, 167 F.3d 641 (D.C. Cir. 1999).

[254] Conformity Guidance on Implementation of March 2, 1999 Conformity Court Decision. Memo from EPA Office of Mobile Sources to Air and Planning Directors (May 14, 1999).

[255] Environmental Defense Fund v. EPA, 167 F.3d 641, 649 (D.C. Cir. 1999).

[256] *Id*. at 645.

[257] *Id*. at 650.

[258] 64 Fed. Reg. 31217 (1999).

[259] *Id.*

> In sum, the court requires regionally significant non-federal projects to be approved by the non-federal entity before a lapse in order to proceed during the lapse. Once approved, non-federal projects can proceed to construction, even during a lapse, as long as the project's design concept and scope doesn't change significantly.[260]

With respect to the 1997 conformity rule's 120-day grace period for the freeze of conformity following EPA's disapproval of a SIP, the EPA's guidance explains that the court's decision eliminated the grace period, and thus a conformity freeze will begin on the effective date of any EPA disapproval of a SIP. However, the EPA has the administrative discretion to make a disapproval effective between 60 and 90 days after publication of the disapproval in the *Federal Register*. This buffer will allow a conformity freeze to start upon the effective date of the disapproval, as opposed to the date of publication of the disapproval.[261]

Also in response to the D.C. Circuit Court's decision in *Environmental Defense Fund*, the FHWA and FTA issued a joint Supplemental Guidance in June of 1999, clarifying that during a conformity lapse scenario, only the following six types of transportation projects may proceed for purposes of funding and implementation: (1) TCMs in approved SIPs; (2) non-regionally significant nonfederal projects; (3) regionally significant non-federal projects but only if the project was approved by the nonfederal entity before the lapse; (4) previously conformed projects—those from a conforming plan or TIP that have received funding commitments for construction; Plans, Specifications & Estimates (PS&E) approval; Full Funding Grant Agreements (FGA) or equivalent approvals when conformity lapse occurs (federal-aid active design and right-of-way acquisition projects, except for initial offers, and for hardship acquisition or protective purchases, will be halted); (5) exempt projects—identified under 40 C.F.R. § 93.126[262] and 40 C.F.R. § 93.127,[263] of the transportation conformity rule; and (6) traffic synchronization projects—provided they are included in subsequent regional conformity analysis of the MPO's transportation plan/TIP under 40 C.F.R. § 93.128.[264]

The D.C. Circuit Court had previously invalidated, as contrary to the Act's conformity provisions, a 12-month regulatory "grace period" during which transportation projects were exempted from conformity requirements after an area was designated as nonattainment.[265] On April 10, 2000, in response to that decision in November 1997, EPA issued an amendment to the Conformity Rule by deleting a provision that allowed new nonattainment areas a 1-year grace period before conformity began to apply.[266] Pursuant to a settlement agreement with the Environmental Defense Fund, EPA had been required to finalize rulemaking on this issue and delete the grace period by March 31, 2000. Later that year, however, Congress restored this provision.[267]

4. The Congestion Mitigation and Air Quality Improvement Program

ISTEA created the Congestion Mitigation and Air Quality Improvement Program (CMAQ). The program was developed to deal with air pollution from transportation-related sources.[268] The CMAQ program was reauthorized in TEA-21.[269] The purpose of the CMAQ program remains unchanged: to fund transportation projects and programs in both nonattainment and maintenance areas to reduce transportation-related emissions.[270] TEA-21 authorizes more than $8.1 billion during the 6-year program from 1998 to 2003.

The U.S. DOT issued program guidance in April 1999 to address issues regarding CMAQ in light of its reauthorization in TEA-21. This guidance replaced all earlier CMAQ guidance documents for eligibility and amounts of funding.[271]

As stated above, the purpose of the CMAQ program is to fund transportation programs or projects that will contribute to or lead to attainment or maintenance of the NAAQS for ozone and CO. TEA-21 also allows CMAQ funding to be used in areas of nonattainment or maintenance for particulate matter.[272]

The highest priority for funding under the CMAQ program is for the implementation of TCMs listed in applicable SIPs. Section 176(c) of the CAA requires that the FHWA and FTA insure timely implementation of these TCMs. These control measures contained in SIPs are necessary to assist the state in attaining and maintaining the NAAQS. As discussed earlier in this chapter, conformance determinations are necessary before the projects can be adopted or approved. Additionally, failing to implement the TCMs listed in

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[260] EPA Office of Mobile Sources, *supra* note 254.

[261] *Id.*

[262] As amended by 62 Fed. Reg. 43816-17 (1997).

[263] As amended by 62 Fed. Reg. 43817-18 (1997).

[264] As amended by 62 Fed. Reg. 43818 (1997). FEDERAL HIGHWAY ADMIN./FEDERAL TRANSIT ADMIN., ADDITIONAL SUPPLEMENTAL GUIDANCE FOR THE IMPLEMENTATION OF THE CIRCUIT COURT DECISION AFFECTING TRANSPORTATION CONFORMITY (1999).

[265] Sierra Club v. EPA, 129 F.3d 137 (D.C. Cir., 1997).

[266] 65 Fed. Reg. 18918 (2000); 40 C.F.R. § 93.102(d).

[267] 42 U.S.C. § 7506(6) as amended by Pub. L. No. 106-377 § 1(a)(1), 114 Stat. 1441, October 27, 2000. On October 5, 2001, EPA published notice that it proposed to reinstate the grace period rule. 66 Fed. Reg. 50954.

[268] Reitze II provides an excellent discussion of CMAQ under ISTEA. However, following reauthorization under TEA-21, the program was changed. The discussion in this section focuses only on CMAQ under TEA-21. The CMAQ program was authorized in the recently enacted TEA-21.

[269] FEDERAL TRANSIT ADMIN., THE CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT (CMAQ) PROGRAM UNDER THE TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY (TEA-21): PROGRAM GUIDANCE (1999). [Hereinafter referred to as CMAQ Program Guidance]. This guidance replaces all earlier CMAQ guidance documents.

[270] *Id*. at 1.

[271] *Id.*

[272] *Id.*

SIPs can also result in CAA highway sanctions being imposed by the EPA.[273]

The funds are apportioned annually to states according to factors based on air quality need, calculated based on the type of pollutant and classification of non-attainment or maintenance areas. If a state does not have, and has never had, a non-attainment or maintenance area, the state may use its funds for any projects in that state eligible under either the CMAQ or Surface Transportation Program. These states are still encouraged to give priority to the use of funds for projects that will further relieve congestion or improve air quality in any area that may be at risk for being designated as nonattainment.[274]

The federal government's cost share of eligible activities and projects ranges from 80 to 90 percent if used to improve the Interstate system. Under Title 23 of the U.S.C., this percentage can be allocated even higher. Those responsible for CMAQ project decisions have the discretion to increase the level of local matching funds given to the project.[275]

TEA-21 allowed any area designated as nonattainment after December 31, 1997, to be eligible for CMAQ funding. This insures that any areas designated nonattainment as a result of the revised ozone and PM Air Quality Standards, promulgated in 1997, will be eligible to receive the funding. However, note that these areas will not be included in the apportionment factors since they are not given any classifications.[276]

The U.S. DOT has identified certain projects that may not be funded under the CMAQ program under any circumstances. Some programs are prohibited by both ISTEA and TEA-21: for example, scrapage programs and highway capacity expansion projects. Also, projects not meeting the specific eligibility requirements under 23 U.S.C. or 49 U.S.C. cannot be funded under the provisions mentioned above.[277]

All programs and projects eligible for CMAQ funds must meet the following two requirements: (1) Come from a conforming transportation plan and TIP, and (2) be consistent with the conformity provisions contained in Section 176(c) of the CAA and the transportation conformity rule.[278] Additionally the projects need to complete the NEPA requirements and other eligibility requirements for funding under Titles 23 and 49 of the U.S.C.[279] In general, CMAQ eligibility decisions should be made after analyzing capital investment, operating assistance, emissions reductions, and public good.[280]

The April 1999 CMAQ program guidance lists and discuss eligible activities and projects. The guidance is not intended to be exhaustive, and programs not listed within the guidance document may also be considered. The TCMs included in the CAA, with the exception of programs to encourage removal of pre-1980 vehicles, are the kinds of projects intended by TEA-21 for CMAQ funding.[281] Transportation control measures are discussed in Section 2.F.2 *supra*.

Proposals for funding should include a precise description of the project, as well as its size, scope, and timetable. An assessment of the expected emission reductions in accordance with guidance should also be included. The guidance document includes the discussion of quantitative and qualitative analysis and assessment of air quality impacts. Additionally, it provides guidance on analyzing groups of projects for air quality impacts that would affect an entire region.[282]

It is important to note that the CMAQ program guidance indicates that program oversight is the responsibility of federal, state, and local officials. Each has specific responsibilities and reporting requirements in coordination with other offices. Close coordination, especially between state and local officials, is necessary to assure that CMAQ funds are used appropriately and to maximize effectiveness in using the funds to meet the CAA requirements.[283]

[273] *Id.*
[274] *Id.* at 4.
[275] *Id.* at 5.
[276] *Id.* at 6.
[277] *Id.* at 8.
[278] 40 C.F.R. pts. 51 and 93.
[279] CMAQ Program Guidance, *supra* note 269.
[280] *Id.*
[281] *Id.* at 10.
[282] *Id.*
[283] *Id.*

SECTION 2

PROJECT ENVIRONMENTAL ANALYSIS

A. ENVIRONMENTAL ASSESSMENT REQUIREMENTS UNDER NEPA*

1. Introduction

NEPA is the Magna Carta of national environmental legislation. NEPA also is by far the most important environmental statute, both in terms of its broad statement of federal environmental policy and the practical effect of its procedural requirements on the activities and programs of federal agencies. Federal assistance triggers NEPA, which applies to many DOT programs because of the extensive assistance they provide to states and local governments. Indeed, FHWA probably carries out more environmental assessments under NEPA and has been a defendant in more NEPA litigation than almost any other federal agency.[1]

NEPA is a brief statute that provides only limited direction on the duty of federal agencies to prepare impact statements. Its principal requirement is that all agencies of the federal government must prepare a "statement," now known as an EIS, on all of their major actions that have a significant effect on the human environment.[2]

In addition, NEPA created the CEQ, which is authorized by Federal Executive Order to adopt regulations that implement NEPA.[3] FHWA is part of the DOT, which like all federal agencies has adopted procedures that implement NEPA for its programs.[4] FHWA has adopted regulations based on the CEQ regulations implementing NEPA[5] as supplemented by an informal guidance document issued as a Technical Advisory.[6] These regulations also apply to the FTA. The statute and regulations are supplemented by an extensive body of case law that the Supreme Court has called the "common law" of NEPA.[7] This section reviews the application of the statute, regulations, and case law to DOT programs that are subject to NEPA, with an emphasis on highway programs funded by FHWA.

The purposes of NEPA, as stated in its Section 2, are to:

> …declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.[8]

The key section of NEPA is Section 102(2)(C).[9] It provides that the "responsible official" of a government agency must prepare an impact statement. The statement must include:

(i) The environmental impact of the proposed action;

(ii) Any adverse environmental effects that cannot be avoided should the proposal be implemented;

(iii) Alternatives to the proposed action;

(iv) The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and

(v) Any irreversible and irretrievable commitments of resources that would be involved in the proposed action should it be implemented.

Two other sections in NEPA are important to DOT programs. Section 102(2)(D)[10] was adopted as an amendment to NEPA and applies to highway and other transportation modal funding. This paragraph effectively authorizes a delegation to state transportation agencies of the authority to prepare impact statements on highway projects. It provides:

> (D) Any detailed statement required under subparagraph (C) after January 1, 1970, for any major Federal action funded under a program of grants to States shall not be deemed to be legally insufficient solely by reason of having been prepared by a State agency or official, if:
>
> (i) the State agency or official has statewide jurisdiction and has the responsibility for such action,
>
> (ii) the responsible Federal official furnishes guidance and participates in such preparation,
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> (iii) the responsible Federal official independently evaluates such statement prior to its approval and adoption, and

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* This section is based on, but is a thorough revision of, DANIEL R. MANDELKER & GARY FEDER, THE APPLICATION OF NEPA (NATIONAL ENVIRONMENTAL POLICY ACT) TO FEDERAL HIGHWAY PROJECTS (Nat'l. Coop. Highway Research Program Legal Research Digest No. 15, 1990).

[1] This section concentrates on FHWA programs because they are the DOT programs most frequently litigated under NEPA, but cases addressing actions taken under other DOT programs are also considered.

[2] NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C). All citations to statutes and regulations are current as of the date of this chapter (1994 ed. U.S.C. with supplements, and 2001 ed. C.F.R. unless otherwise noted).

[3] 40 C.F.R. pt. 1500 (July 1, 2001) [hereinafter CEQ Reg.]. For Federal Aviation Administration regulations see FAA Orders 1050.1D, 5050.41. *See also* 45 Fed. Reg. 2544 (1980), as amended, 49 Fed. Reg. 28501 (1984). For Federal Railroad Administration regulations see 45 Fed. Reg. 40854, as amended, 45 Fed. Ref. 58022 (1980). The Council on Environmental Quality Web site has citations to agency NEPA regulations: http://ceq.eh.doe.gov.

[4] Department of Transportation Order 5610.1C [hereinafter DOT Order].

[5] 23 C.F.R. pt. 771 [hereinafter FHWA Reg.].

[6] Federal Highway Admin., Technical Advisory T 6640.8A [hereinafter FHWA Guidance].

[7] Kleppe v. Sierra Club, 427 U.S. 390, 420 (1976). NEPA case law as well as CEQ's implementing regulations are thoroughly reviewed in D. MANDELKER, NEPA LAW AND LITIGATION (2d ed. 1992 and annual supplements.) [hereinafter NEPA LAW AND LITIGATION]. *See also* Annot., *Necessity and Sufficiency of Environmental Impact Statements under § 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. § 4332(2)(C) in Cases Involving Highway Projects*, 64 A.L.R. FED. 15 (1983).

[8] 42 U.S.C. § 4331.

[9] 42 U.S.C. § 4332(2)(C).

[10] 42 U.S.C. § 4332(2)(D).

> (iv) after January 1, 1976, the responsible Federal official provides early notification to, and solicits the views of, any other State or any Federal land management entity of any action or any alternative thereto which may have significant impacts upon such State or affected Federal land management entity and, if there is any disagreement on such impacts, prepares a written assessment of such impacts and views for incorporation into such detailed statement.
>
> The procedures in this subparagraph shall not relieve the Federal official of his responsibilities for the scope, objectivity, and content of the entire statement or of any other responsibility under this Act; and further, this subparagraph does not affect the legal sufficiency of statements prepared by State agencies with less than statewide jurisdiction.

Section 102(2)(E)[11] of NEPA contains another important requirement that affects environmental assessments of federal actions. It independently requires an analysis of alternatives to an action, even if an agency does not have to prepare an impact statement. It provides that federal agencies must "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources."

2. What is a "Federal Action?"

a. In General

NEPA does not define the term "action," but CEQ regulations define "major federal action" as "including projects and programs entirely financed or partly financed, assisted, conducted, regulated or approved by federal agencies."[12] FHWA and FTA regulations[13] implement CEQ regulations by defining an "action" to include a highway project proposed for FHWA and FTA funding as well as activities, such as use permits and changes in access control, that do not require a commitment of federal funds.[14]

FHWA and FTA regulations specify three classes of actions that require different levels of documentation under NEPA.[15] One class, which includes a new controlled access highway, normally requires an impact statement. The second class consists of actions categorically excluded from NEPA. The third class consists of actions where a preliminary environmental assessment is required because the significance of the environmental impact is not clearly established.

b. Federally Funding: Preliminary Actions

The clearest case in which NEPA applies to FHWA and FTA programs is when these agencies fund a project.[16] NEPA does not usually apply to federal funding for the early phase of a project, such as planning or preliminary engineering studies. Whether NEPA applies turns on language that requires an impact statement only when a federal agency makes a "proposal" for an action. The Supreme Court gave the term "proposal" a definitive interpretation in *Kleppe v. Sierra Club*.[17] That case made it clear that an impact statement is required only when an agency has made a final decision on a project, not when an action is only contemplated. If FHWA or FTA has provided funding only for preliminary studies and is not even contemplating funding for a project, it would seem clear that an impact statement is not required at that point because the agency has not made a final decision.

This conclusion is supported by CEQ regulations. The regulations require an impact statement only when an agency "has a goal and is actively preparing to make a decision on one or more alternative means of accomplishing that goal and the effects can be meaningfully evaluated."[18]

Transportation project cases illustrate this point. *Macht v. Skinner*[19] was a suit to enjoin the construction of the Central Baltimore Light Rail Line where it was claimed that state and federal officials failed to comply with NEPA. The only federal involvement in the project was a $2.5 million FTA grant to help the state complete alternative analyses and draft EIS's for proposed extensions that would be federally funded. The court held that federal funding for these preliminary studies did not federalize the extension because the federal agency had not yet finally decided to assist the state in the final design or construction of the extensions.

c. Federally Approved Actions Not Funded by the Federal Government

i. Federal Actions Required to Allow an Action to Proceed.— NEPA case law makes it clear that NEPA applies when a federal agency takes an action that authorizes a nonfederal agency to proceed with a project.[20] CEQ regulations are in agreement.[21] A problem arises in state programs when a project is not funded by federal funds but requires some action from the federal agency before it can proceed.

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[11] 42 U.S.C. § 4332(2)(E).

[12] 40 C.F.R. § 1508.18(a).

[13] These regulations are hereinafter referred to as "FHWA regulations."

[14] 23 C.F.R. § 771.107(b). NEPA case law recognizes that federal funding is enough to constitute a federal action subject to NEPA. NEPA LAW AND LITIGATION, *supra* note 7, at § 8.04[3].

[15] 23 C.F.R. § 771.116.

[16] *E.g.*, Zarilli v. Weld, 875 F. Supp. 68 (D. Mass. 1995) (highway).

[17] 427 U.S. 390 (1976). *See also* § 2D, *infra*.

[18] 40 C.F.R. § 1508.23.

[19] 916 F.2d 13 (D.C. Cir. 1990). *See also* Save Barton Creek Ass'n v. Federal Highway Admin., 950 F.2d 1129 (5th Cir. 1992) (early coordination activities for highway project did not federalize project for purposes of NEPA).

[20] This principle was established in an early NEPA case, Scientists' Inst. for Public Information (SIPI) v. Atomic Energy Comm'n, 481 F.2d 1079 (D.C. Cir. 1973).

[21] 40 C.F.R. § 1508.18(4) (action includes projects approved by permit or other regulatory decision).

Only a few cases have considered this question under NEPA and they are divided.[22] In a case whose reasoning can apply to transportation projects, *Winnebago Tribe of Nebraska v. Ray*,[23] the question was whether an impact statement was required for a 75-mile proposed private power line. The argument for applying NEPA was that 1.25 miles of the line required a federal permit for a river crossing. The federal agency had jurisdiction only over the river crossing, and the court held that this was not sufficient to convert the construction of the entire transmission line into a federal action. The court indicated that three factors determined whether the federal agency had exercised enough control over the nonfederal action to make the action federal:

> (1) the degree of discretion exercised by the agency over the federal portion of the project;
>
> (2) whether the federal government has given any direct financial aid to the project; and
>
> (3) whether "the overall federal involvement with the project [is] sufficient to turn essentially private action into federal action."[24]

This issue has arisen in highway cases. For example, in *Maryland Conservation Council v. Gilchrist*,[25] a nonfederal highway was held subject to NEPA because it required a federal dredge and fill permit, federal approval to convert parkland acquired with a federal grant, and federal approval to use parkland for the highway. The highway was to be constructed by a county that had received federal planning funds but had not received additional federal funding.

Gilchrist indicates NEPA does not apply when actions by a state agency do not require federal review. NEPA would not have applied in that case if federal actions on the project were not required. This point has been made in NEPA cases that did not concern highway projects. In *Crounse Corp. v. Interstate Commerce Comm'n*,[26] the court held that the Commission, when assessing the environmental impacts of a corporate merger, did not have to consider the environmental impacts of corporate projects it did not have the power to approve. The courts have reached the same result even when federal subsidies were made available for state and local projects, but the federal agency did not exercise enough control over the project to make it a federal action. In these cases the state or local agency made the decision to undertake the project and exercised project control.[27]

These cases indicate that federal project approvals for nonfederal projects will bring the project under NEPA if the federal approval is essential to the nonfederal project, and if the federal agency exercises enough control to make the project federal. The *Gilchrist* case indicates that a dredge and fill permit required under the CAA falls in this category. Related navigation and similar permits would also fall in this category, unless the part of the project for which a permit is required is too much of a "small handle" to make NEPA applicable.

Another class of cases in this category are cases in which a state or local agency requires approval from the FHWA for access to or over a federal Interstate or other highway for a highway project. FHWA regulations implementing the federal-aid highway act[28] require FHWA approval for permanent or temporary access to federally-aided highway right-of-way, including airspace over the right-of-way.[29] FHWA must approve access if it is in the public interest.

If a request for access has not yet been acted on, FHWA has not yet made a final decision and NEPA does not apply.[30] Neither does NEPA apply when the access requested is temporary. In *Citizens Organized to Defend Env't, Inc. v. Volpe*,[31] the DOT, as authorized by an agreement, approved a plan that granted exclusive temporary access to a mining company to allow mining equipment to cross a federal highway for a 24-hour period. The court held that the crossing approval was not a major federal action that required an impact statement. No planning was required for the crossing approval, the time involved in granting approval was minimal, there were no environmental consequences, and the DOT's decision was nondiscretionary.

The *Citizens* case probably would not apply to a decision to grant permanent access over a federal highway for a nonfederal highway.[32] The reasons for holding that a grant of temporary access is not a major federal action do not apply when the federal agency grants permanent access. The holding in *Citizens* that

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[22] NEPA LAW AND LITIGATION, *supra* note 7, at § 8:04[2]. *Compare* Ringsred v. City of Duluth, 828 F.2d 1305 (8th Cir. 1987) (action not federal when agency approved Indian contracts for city parking ramp for city facility) with Colorado Indian River Tribes v. Marsh, 605 F. Supp. 1425 (C.D. Cal. 1985) (NEPA held applicable to 156-acre development project when only federal action was a permit for riprap to stabilize a river bank).

[23] 621 F.2d 269 (8th Cir.), *cert. denied,* 449 U.S. 836 (8th Cir. 1980).

[24] *Id*. at 272 [citing NAACP v. Medical Center, Inc., 584 F.2d 619, 629 (3d Cir. 1978)].

[25] 808 F.2d 1039 (4th Cir. 1986).

[26] 781 F.2d 1176 (6th Cir. 1986), *cert. denied,* 497 U. S. 890 (1986).

[27] Sierra Club v. Stamm, 507 F.2d 788 (l0th Cir. 1974) (federal subsidies used for pesticide and herbicide spraying that polluted wells, but federal agency did not control use of subsidies). *See also* Landmark West v. United States Postal Service, 840 F. Supp. 994 (S.D.N.Y. 1993) (federal lending and contribution to nonfederal project with other contributory federal actions), *aff'd without opinion*, 41 F.3d 1500 (2d Cir. 1994).

[28] 23 U.S.C. § 111.

[29] 23 C.F.R. § 1.23.

[30] B.R.S. Land Investors, Inc. v. United States, 596 F.2d 353 (9th Cir. 1979) (impact statement not required on request for right-of-way over federal land); College Gardens Civic Ass'n, Inc. v. United States Dep't of Transp., 522 F. Supp. 377 (D. Md. 1981).

[31] 353 F. Supp. 520 (S.D. Ohio 1972).

[32] For example, NEPA would be triggered by federal access approvals for private or nonfederal toll roads, or by permits under § 404 of the Clean Water Act or by other federal permits.

the DOT's decision was nondiscretionary is also questionable. There is some authority under NEPA that the statute does not apply to nondiscretionary actions by a federal agency,[33] but the court's holding that the decision to approve access under the regulation is nondiscretionary is not correct. The federal agency may approve access only if this is in the "public interest," and this standard of review clearly contemplates the exercise of agency discretion.

ii. Planning and Regulatory Programs.—Another question that arises is whether NEPA applies when the federal agency does not approve a specific state action, but a federal statute authorizes a state permit approval or planning process in which a federal agency has a right to intervene. An example is the state and metropolitan transportation planning process required by the Federal-Aid Highway Act. FHWA can review this process to determine whether it complies with federal statutory requirements and with additional requirements established by FHWA regulations.

CEQ decided not to address this problem in its regulations,[34] but the courts have considered the question of NEPA's applicability in this type of situation in programs other than the highway program. For example, the EPA has the authority under the CWA to delegate to the states the authority to issue permits for new sources of pollution. EPA can revoke this delegated authority if a state does not comply with criteria for state permit programs that are specified in the federal statute. In *Chesapeake Bay Foundation, Inc. v. Virginia State Water Control Bd.*,[35] EPA had delegated new source permit administration to the state. Plaintiff claimed the state was required to prepare an impact statement on a new source permit it issued. Plaintiff argued that the delegation of authority to the state provided "sufficient federal involvement" to make the state board an action of EPA.

The court disagreed. It noted that EPA's principal function was to approve the initial delegation of authority to a state. After this approval, the issuance of new source discharge permits by a state were "basically state matters" and were not federalized even by the heavy federal regulation of state permit authority.

There are also a number of federal programs in which the federal government provides financial assistance to the states, which carry out programs under state law that are approved under federal statutory criteria. The National Coastal Zone Management Program is an example. A federal agency makes grants to the states to develop and administer state coastal zone programs under state law. Initial and continuing federal assistance is based on continuing federal review and approval of the state programs. In *Save Our Dunes v. Pegues*,[36] the court held that federal funding of state coastal zone programs did not make them federal actions that require an impact statement under NEPA.[37]

The transportation planning programs required by the Federal-Aid Highway Act have received a similar judicial interpretation. The leading case is *Atlanta Coalition on the Transportation Crisis, Inc. v. Atlanta Regional Commission*.[38] The plaintiff claimed an impact statement was required on a Regional Development Plan (RDP) that provided a long-range transportation systems guide and land use plan for the Atlanta metropolitan area. Plaintiff claimed that federal participation had federalized the regional transportation planning process. The RDP made transportation projects eligible for federal funding, federal agencies reviewed the regional planning process and certified compliance with federal requirements, and federal funds were used in the preparation of the RDP.

The court held that an impact statement was not required. The federal presence had not become so pervasive that the regional planning process had become a federal action requiring an impact statement under NEPA. Federal funding was made available under a "fairly rigid formula" and federal certification was required only to ensure that the regional planning process met federal requirements. State and local officials made planning decisions in the regional planning process, the federal agency did not review the substance of these decisions, and the possible future funding of projects included in the RDP did not make the plan federal for NEPA purposes.

A related issue is whether actions taken by the federal agency in the review of state and metropolitan transportation plans come under NEPA. In identical provisions, TEA-21 states that NEPA does not apply to state or regional transportation planning under the federal highway act. These provisions state that "any decision by the Secretary concerning a plan or program described in this section [which authorizes planning]

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[33] State of South Dakota v. Andrus, 614 F.2d 1190 (8th Cir.) (issuance of mineral patent for mining claim in national forest), *cert. denied*, 449 U.S. 822 (1980). *See* NEPA LAW AND LITIGATION, *supra* note 7, § 8.05[2].

[34] See CEQ's Preamble to its final 1978 regulations implementing NEPA:

> [T]he Draft regulations addressed the issue of NEPA's application to Federal programs which are delegated or otherwise transferred to State and local government. Some commenter said that the application of NEPA in such circumstances is a highly complicated issue….The Council concurs and determined not to address this issue in this context at the present tune. This determination should not be interpreted as a decision one or the other on the merits of the issue. [43 Fed. Reg. 55978, 55989 (1978)].

[35] 453 F. Supp. 122 (E.D. Va. 1978). *Accord*, District of Columbia v. Schramm, 631 F.2d 854 (D.C. Cir. 1980).

[36] 642 F. Supp. 393 (M.D. Ala. 1985).

[37] *See also* National Organization for the Reform of Marijuana Laws v. Drug Enforcement Admin., 545 F. Supp. 981 (D.D.C. 1982) (impact statement not required on federal financial and technical assistance for state spraying program when state-controlled program and federal funds were not used in the program).

[38] 599 F.2d 1333 (5th Cir. 1979).

shall not be considered to be a Federal action which is subject to review under the National Environmental Policy Act of 1969."[39]

NEPA questions also arise when a federal agency has the authority to take action against a state agency but does not do so. An example in the highway program is a failure by FHWA to disapprove a state or metropolitan plan because it does not meet federal statutory requirements. Another example is a failure by FHWA to penalize a state for failing to adopt and implement an outdoor advertising control program, as required by the federal highway act. An argument can be made that an impact statement is required to evaluate the agency's failure to take action. But the cases hold differently: an impact statement is not required if an agency fails to take an action it is authorized to take under a statute.

Defenders of Wildlife v. Andrus [40] is a leading case. The Department of the Interior did not exercise whatever authority it might have to prohibit a wolf kill in Alaska. The court held that the Department's failure to act did not come under the plain meaning of NEPA, which requires an impact statement only for "proposals" for "actions." Nor did the federal agency make the state agency's action its own by "not inhibiting" the state action. This would require some "overt act" by the federal agency that furthered the state agency's project. The court also held that to require an impact statement for the agency's inaction would enfeeble and trivialize NEPA. Courts have reached the same result when a federal agency has refused to veto a state decision when the federal agency retained veto authority over a decision-making process it had delegated to the state.[41]

Sierra Club v. Hodel [42] distinguished the *Andrus* case. A county planned to widen a road in a wilderness study area. The federal agency approved the boundaries of the road but failed to take action, as required by statute, to determine whether the road would degrade adjacent wilderness areas. The court held that the agency's inaction required an impact statement because its duty, unlike the agency's duty in *Andrus*, was mandatory rather than discretionary. However, in *Airport Owners & Pilots Ass'n v. Hinson*,[43] the court held there was no duty to prepare an impact statement when the federal agency failed to enforce a debatable legal claim to prevent the closing of an airport.

d. Timing Problems: When is an Action a Proposal for Purposes of NEPA?

i. General Principles.–Although NEPA does not indicate the point of time in an agency's decision-making process when an impact statement is required, the courts have provided guidance on this problem. The leading Supreme Court case is *Kleppe v. Sierra Club*.[44] Plaintiffs brought suit requesting the court to order the preparation of a program impact statement on the development of coal mines by federal agencies throughout a multi-state Northern Great Plains Region. A program impact statement, sometimes called a "programmatic" impact statement, is an impact statement prepared on a group of related projects, rather than on a single project such as a discrete highway project.

The Supreme Court noted that NEPA requires an impact statement only if there is a report or "proposal" for a major federal action. It held the duty to prepare an impact statement that is imposed by NEPA is quite precise and that courts do not have the authority to depart from the statutory language to determine when an impact statement is required. The Court then found that a regional plan or program for coal mining was only contemplated and held that the mere contemplation of a program did not require the preparation of an impact statement. The Court also held that a regional impact statement on the coal mining program could not be prepared for "practical reasons." An impact statement requires a detailed environmental analysis, which would be impossible to undertake in the absence of an overall regional plan. An attempt to prepare an impact statement in the absence of a plan would be little more than a study of potential environmental impacts because it would not have a factual predicate.

Plaintiffs in *Kleppe* also claimed an impact statement was necessary on all coal mining projects in the region because they were intimately related. The Court agreed that a program impact statement is necessary when several proposals for actions that have "cumulative or synergistic" impact upon a region are pending concurrently before an agency. The Court held it would defer to an agency's decision on whether concurrently pending proposals require an impact statement, and upheld the agency's decision in this case that an impact statement was not necessary. CEQ regulations have codified the *Kleppe* decision.[45]

Kleppe leaves a number of questions unanswered. Although the Court held that the duty to prepare an impact statement is "precise," it did not define that term. The Court left open possibilities for a pragmatic interpretation of the "proposal" requirement by relying on practical reasons for not requiring an impact statement. Neither is *Kleppe's* application to highway projects entirely clear because the case considered a

[39] 23 U.S.C. §§ 134(o) (metropolitan planning), 135(i) (state planning).

[40] 627 F.2d 1238 (D.C. Cir. 1980).

[41] District of Columbia v. Schramm, 631 F.2d 854 (D.C. Cir. 1980).

[42] 848 F.2d 1068 (10th Cir. 1988).

[43] 102 F.3d 1421 (7th Cir. 1996).

[44] 427 U.S. 390 (1976). *See also* NEPA LAW AND LITIGATION, *supra* note 7, at § 8.03 [4].

[45] 40 C.F.R. § 1508.23.

request for a program impact statement, not a statement on a single federally funded project.

Kleppe has influenced the lower federal courts in most cases to hold that an impact statement is not necessary when the question is whether an impact statement should be prepared on an early stage of a project.[46] For example, in *Save Barton Creek Ass'n v. Federal Highway Admin*.[47] the court held the construction of an outer loop around Austin, Texas, was a contemplated action existing only as a concept in a long range plan subject to constant revision. There was no major federal action because there had been no federal approvals of the project of any kind.

ii. State and Regional Transportation Planning.—As noted earlier, TEA-21 requires a state and metropolitan transportation planning process and exempts state and regional transportation plans from NEPA.[48] Before this exemption was adopted, *Atlanta Coalition on the Transportation Crisis, Inc. v. Atlanta Regional Commission*[49] followed *Kleppe* to hold that an impact statement is not required on the Commission's Regional Development Plan (RDP) that provided the long-term transportation system's plan and land use guide for the Atlanta metropolitan area. The plaintiffs in *Atlanta Coalition* made the same argument the plaintiffs made in *Kleppe*—that the individual projects included in the RDP were so intimately related that they required the preparation of a program impact statement.

The court in *Atlanta Coalition* rejected this argument but was very careful to limit its holding to the argument that an impact statement was required on the entire RDP.[50] It admitted that the decision of a federal agency to fund individual projects included in the RDP would be a federal action when it was made, but that this time had not arrived. Many, if not most, of the transportation projects in the RDP were not "proposed" federal actions. Some might never be implemented and some might not be implemented for 10 or 20 years.

A similar problem arises when an impact statement is requested on planning for an entire highway system not limited to a metropolitan area. The court considered this problem in *Indian Lookout Alliance v. Volpe,*[51] where it held an impact statement was not necessary on an entire 1,878-mi state highway system. The court noted that planning for state highway systems was flexible and must be projected over a long period of time. The preparation of an impact statement on the system would cause disputes to arise on the environmental effects of highway locations and would make it impossible for the state to plan for the system.

These cases indicate that courts are not likely to require impact statements on regional or system highway plans. Plans are by their nature tentative and indicate possible highway corridors, not the location of right-of-way for specific projects. It is unlikely that a regional or system plan would include projects so firmly committed and accepted by federal, state, and local officials that the plan would require an impact statement.

iii. NEPA and Right-of-Way Decision-Making for Projects Planned to Become Federal Projects.—The court made it clear in footnote 2 of *Atlanta Coalition* that its decision did not cover project planning.[52] This section considers cases in which a state or local agency, without federal funding, takes a preliminary action to prepare or qualify a highway project for federal approval. The discussion also applies to other transportation projects. The question is whether these preliminary actions require an impact statement. CEQ regulations help provide an answer to this question. They provide that an impact statement is required only when an agency "has a goal and is actively preparing to make a decision on one or more alternative means of accomplishing that goal and the effects can be meaningfully evaluated."[53]

One option available to a state or local government is to preserve right-of-way for future acquisition through corridor preservation programs. The application of NEPA to these programs is discussed in Section 1.E.

A state transportation agency can acquire land for a highway project with state or local funds. A state highway agency may also take actions to qualify a highway project for federal funding. It can place the project on the federal system, program the project for federal aid through administrative action, or formally program a project as a federal project under federal procedures.

If FHWA has not in any way approved or authorized these state or local actions, an impact statement is not required because there is no federal action. Even if FHWA has taken an action prior to the time a state or local government engages in these qualifying activities, the question is whether these qualifying activities are a "proposal" that requires an impact statement.

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[46] NEPA LAW AND LITIGATION, *supra* note 7, at § 8.03[4].

[47] 950 F.2d 1129 (5th Cir. 1992). *See also* Sierra Club v. Hathaway, 579 F.2d 1162 (9th Cir. 1978) (impact statement not required on geothermal leases issued by federal agency in first-phase "casual use" leasing program). *But see* Conner v. Burford, 848 F.2d 1441 (9th Cir. 1988) (impact statement required on sale of oil lease without full mitigation stipulations), *cert. denied*, 489 U.S. 1012 (1989).

[48] *See* Section 1, Parts A-C, for a discussion of the transportation planning process.

[49] 599 F.2d 1333 (5th Cir. 1979). The federal holding in this decision is discussed in § 2C.2, *supra*.

[50] This analysis is repeated in footnote 17 of the decision.

[51] 484 F.2d 11 (8th Cir. 1973). *See also* Conservation Soc'y of S. Vt. v. Secretary of Transp., 508 F.2d 927 (2d Cir. 1974), *vacated and remanded*, 423 U.S. 809 (1975), 531 F.2d 637 (2d Cir. 1976) (impact statement not required on a 200-mi multi-state highway where there was no federal plan for the highway).

[52] The court quoted the Director of Planning and Programming for the Georgia Department of Transportation, who defined project planning as "that stage at which specific solutions to the needs identified at the system planning stage are found." 599 F.2d at 1337.

[53] 40 C.F.R. § 1508.23.

FHWA takes action on state highway projects in a series of successive stages. FHWA regulations provide that the completion of a project's environmental processing and compliance with statutory public hearing requirements are "considered acceptance of the general project location."[54] In the final stage the state agency submits the PS&E to FHWA. If it approves the PS&E, FHWA enters into a formal agreement with the state agency that is "deemed a contractual obligation of the Federal Government for the payment of the Federal share of the cost of the project."[55]

The question is which federal approvals are necessary to make state actions that qualify a highway project for federal aid a "proposal" that requires an impact statement. Only a few decisions early in the history of NEPA addressed this issue, probably because the number of federal project grant programs in which this issue can arise has declined.

City of Boston v. Volpe[56] is an early leading case holding that tentative funding approval by a federal agency does not make a nonfederal project a "proposal" under NEPA. An airport authority requested a federal grant for a new airport taxiway, the federal agency made a "tentative allocation" of federal funds, and the authority then submitted a final funding application. The court held that the tentative funding decision was not enough to make the project a "proposal" under NEPA. The court gave weight to agency regulations providing that tentative funding was a preliminary decision prior to the final decision in which the project was given greater scrutiny.[57]

City of Boston distinguished NEPA cases decided under the Federal Highway Act holding that the location approval of a highway was subject to NEPA.[58] Location approval at that time was a requirement in the FHWA regulations that authorized FHWA to approve the location of a highway. The *City of Boston* court noted that location approval was a commitment of federal funds for a highway at the approved location, and that additional federal review focused only on design. The court also stated that highways received approval in a series of stages that could be compared to successive reviews of architect plans, so that it was acceptable to select one of the approval stages as a federal commitment. Airport development grants required only a single final approval, so that preliminary tentative funding was not enough to trigger NEPA.

The court's characterization of the federal highway approval process may no longer be correct, and the early highway cases decided when location approval was required may no longer apply. As noted earlier, FHWA regulations presently state that FHWA approval following NEPA compliance "is considered acceptance of the general project location." The regulation also states that this approval "does not commit the Administration to approve any future grant request to fund the preferred alternative."[59] A court could interpret this regulation to mean that location approval as now defined is not a federal commitment that is sufficient to trigger the application of NEPA.

e. Does NEPA Apply to Defederalized Projects?

Cases arise in the federal highway program in which a state transportation project becomes federalized, but the state then attempts to defederalize the project by withdrawing it from the federal program. The question is whether NEPA still applies. In an early leading case, *Named Individual Members of San Antonio Conservation Soc'y v. Texas Highway Dept. (I)*,[60] the state attempted to shift a highway under construction to state funding when an appeal had been taken on the state's failure to prepare an impact statement. The court held the highway was still subject to NEPA.

Scottsdale Mall v. State of Indiana[61] is another leading case that did not allow state defederalization of a highway. The highway had gone through design and preliminary engineering stages with federal funding. Suit was brought challenging the state's failure to prepare an impact statement when the state was about to begin right-of-way acquisition. When the federal district court ruled an impact statement was necessary, the state attempted to "deprogram" the project by refunding the amount received for this project and applying it to other projects. The court decided that federal approvals and the receipt of federal funds had so federalized the project that the state's attempted withdrawal did not make NEPA inapplicable.[62]

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[54] 23 C.F.R. § 771.113(b).

[55] 23 U.S.C.A. § 106(a). (Supp. 2001).

[56] 464 F.2d 254 (1st Cir. 1972). *Accord*, Friends of Earth, Inc. v. Coleman, 518 F.2d 323 (9th Cir. 1975) (approval of airport plan).

[57] Compare Silva v. Romney, 473 F.2d 287 (1st Cir. 1973) (*contra* and City of Boston distinguished when federal housing department made federal mortgage insurance and subsidy commitment for private housing project).

[58] Lathan v. Volpe (I), 455 F.2d 1111 (9th Cir. 1971); La Raza Unida v. Volpe, 337 F. Supp. 221 (N.D. Cal. 1971). *aff'd on other grounds*, 488 F.2d 559 (9th Cir. 1973), *cert. denied*, 417 U.S. 968 (1974). *Contra*, Citizens for Balanced Env't & Transp. v. Volpe, 376 F. Supp. 806 (D. Conn.) (route revision approval and continued compliance to remain eligible for federal funding not enough to make NEPA applicable*), rev 'd on other grounds per curium*, 503 F.2d 601 (2d Cir. 1974), *cert. denied*, 423 U.S. 870 (1975). *See* Comment, *Environmental Attacks on Highway Planning Under NEPA? When is There 'Federal Action'?*, 7 CONN. L. REV. 733 (1975).

[59] 23 C.F.R. § 771.113(b). *See also* Lathan v. Brinegar, 506 F.2d 677 (9th Cir. 1974) (neither route location nor design approval creates contractual obligation on the part of the federal government to reimburse the state for costs incurred in a federal-aid highway project).

[60] 446 F.2d 1013 (5th Cir. 1971), *cert. denied*, 406 U.S. 933 (1972).

[61] 549 F.2d 484 (7th Cir. 1977), *cert. denied*, 434 U.S. 1008 (1978). *See also* Ross v. Federal Highway Admin., 162 F.3d 1046 (10th Cir. 1998) (defederalization of highway not allowed when supplemental impact statement process has begun).

[62] For a case containing a suggestion that a state's refunding of federal money already spent on construction

The court held the timing of the withdrawal was the significant factor, and that there was a point of no return beyond which defederalization of a highway project could not occur. The court did not have to decide when a highway becomes irrevocably federal. It held that under the facts in the case this point had been reached, especially because the federal government remained involved with the highway up to the point of right-of-way acquisition. Other cases refused to recognize attempts to defederalize transportation projects that occurred after federal funding had been authorized.[63]

Defederalization occurred in most of these cases after a court challenge was brought against the state for failure to comply with NEPA. For example, in *Scottsdale Mall*, the leading defederalization case, the court did not base its decision refusing to find defederalization on the state's intent to avoid NEPA compliance, but on the timing of the state's attempted withdrawal from the federal-aid highway program. However, the state's intent to avoid NEPA compliance may have been one of the factors behind the decision that defederalization had not occurred.

In *Macht v. Skinner*,[64] a court held a state could withdraw a request for federal funds for rolling stock for a light rail project because federal funding would delay the project by triggering NEPA. The court held the project was not federal because the state-funded part of the project had been properly segmented. These cases do not exhaust all the situations in which states may attempt to defederalize highway projects.

f. What is the Consequence of Failing to Apply NEPA in a Timely Fashion?

i. Availability of a Preliminary Injunction.—NEPA does not provide for preliminary injunctions or any other remedy, but there is extensive case law on the availability of preliminary injunctions under NEPA.[65] Plaintiffs in highway and other transportation project cases often seek a preliminary injunction to stop work on the project until an impact statement is prepared. Preliminary injunctions under NEPA are based on a multifactor rule the federal courts usually apply when they decide whether a preliminary injunction is necessary. This rule requires courts to consider the plaintiff's probability of success on the merits, a balancing of the harm to the plaintiff if an injunction is not granted against the harm to the defendant if an injunction is granted, and the public interest affected.[66]

In NEPA cases the most important issue courts have faced is to decide when the failure to grant a preliminary injunction will cause irreparable harm to a plaintiff. Some courts had adopted a NEPA exception to the irreparable harm requirement. This exception allowed a court to issue a preliminary injunction once a substantial violation of NEPA had been shown without detailed consideration of the usual equity principles required by the multifactor test.[67]

Supreme Court cases considering preliminary injunctions under other environmental statutes have cast doubt on the NEPA exception to the traditional multifactor test. These cases hold that an injunction is not available as of right under environmental statutes and that traditional equity principles apply.[68] The Supreme Court did say in one of these decisions that in most cases the "balance of harm" will usually favor an injunction under environmental statutes.[69] If applied to NEPA, the Supreme Court cases would make it more difficult to grant plaintiffs a preliminary injunction than it is under the NEPA exception cases.

The lower federal courts have not yet determined whether and to what extent the Supreme Court decisions affect the availability of preliminary injunctions in NEPA cases.[70] The Seventh Circuit, in a case that did not concern a highway project, held that the Supreme Court decisions require application of the traditional equity rules in NEPA eases.[71] A district court agreed in a NEPA highway case.[72] The First Circuit did not agree with this interpretation in a NEPA case that challenged an offshore drilling project.[73]

When a claim of irreparable harm is made, courts will find sufficient harm when a clear and tangible harm to the environment will occur if a preliminary injunction were not granted.[74] The courts have not found harm when the harm was minimal, or when an

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would defederalize it, see Hall County Historical Soc'y v. Georgia Dep't of Transp., 447 F. Supp. 741 (N.D. Ga. 1978).

[63] Highland Coop. v. City of Lansing, 492 F. Supp. 1372 (W.D. Mich. 1980) (federal funds authorized for land acquisition and state continued to submit plans to federal agency); Sierra Club v. Volpe, 351 F. Supp. 1002 (N.D. Cal. 1972) (state withdrew project after federal funding authorized and NEPA suit filed).

[64] 715 F. Supp. 1131 (D.D.C.), *aff'd without opinion*, 889 F.2d 291 (D.C. Cir. 1989).

[65] NEPA LAW AND LITIGATION, *supra* note 7, at § 4.10[2].

[66] NEPA LAW AND LITIGATION, *supra* note 7, at § 4.10[2][B].

[67] NEPA LAW AND LITIGATION, *supra* note 7, at § 4.10 [2][C]. For a case summarizing the NEPA exception, see State of Cal. v. Bergland, 483 F. Supp. 465, *aff'd, rev'd and remanded on other grounds sub nom.*, State of Cal. v. Block, 690 F.2d 753 (9th Cir. 1982). For an early highway case applying the exception, see Steubing v. Brinegar, 511 F.2d 489 (2d Cir. 1975).

[68] Amoco Prod. Co. v. Village of Gambell, 480 U.S. 531 (1987) (Alaska National Interest Lands Conservation Act); Weinberger v. Romero-Barcelo, 456 U.S. 305 (1982) (Clean Water Act).

[69] Amoco Prod. Co. v. Village of Gambell, 480 U.S. 531 (1987).

[70] *See* Rubenstein, *Injunctions under NEPA after Weinberger v. Romero-Barcelo and Amoco Production Co. v. Village of Gambell,* 5 WIS. ENVTL. L.J. 1 (1998).

[71] State of Wis. v. Weinberger, 745 F.2d 412 (7th Cir. 1984).

[72] Vine Street Concerned Citizens v. Dole, 604 F. Supp. 509 (E.D. Pa. 1985).

[73] Sierra Club v. Marsh, 872 F.2d 497 (lst Cir. 1989).

[74] Steubing v. Brinegar, 511 F.2d 489 (2nd Cir. 1975) (bridge); Ross v. Federal Highway Admin., 972 F. Supp. 552 (D. Kan. 1997) (highway).

action was in its preliminary or planning stage.[75] Harm to the defendant, especially when it arises from a delay in a project, may lead a court to refuse an injunction, but a court may hold that compliance with NEPA justifies any delay that might occur.[76] The "public interest" is the final factor courts consider when they decide whether to grant an injunction. For example, the need to correct a dangerous intersection may lead a court to deny an injunction in a highway case.[77] Other courts find a public interest in the implementation of NEPA that outweighs other factors they consider when they decide whether they should grant a preliminary injunction.[78]

ii. Remedy Granted by Preliminary Injunction.—If a court grants a preliminary injunction it will usually enjoin all work on a project until an adequate impact statement is prepared. A court may also specify schedules and timetables for the submission of an impact statement.[79] If a court cannot conclude that an impact statement is required, it may remand the case to the agency to correct deficiencies in the environmental analysis.[80]

An important issue in transportation project cases is whether a court will enjoin work on an entire project or grant a partial preliminary injunction that allows work on some of the project to continue while the agency is preparing an impact statement or revised environmental assessment. The courts will enjoin the entire project if they find a highway was planned as a single entity, and that the environmental impacts of the first stage of a highway project will affect the second.[81] They will grant a partial injunction if it is necessary to allow part of a project to proceed to remedy public safety problems or provide necessary access.[82]

[75] American Public Transit Ass'n v. Goldschmidt, 485 F. Supp. 811 (D.D.C. 1990) (regulations authorized preliminary planning and acquisition of buses for the handicapped).

[76] Ross v. Federal Highway Admin., 972 F. Supp. 552 (D. Kan. 1997) (highway).

[77] Public Interest Research Group of Michigan (PIRGIM) v. Brinegar, 517 F.2d 917 (6th Cir. 1975). *But see* Highland Coop. v. City of Lansing, 492 F. Supp. 1372 (W.D. Mich. 1980) (delay in constructing new boulevard may not be harmful).

[78] Provo River Coalition v. Pena, 925 F. Supp. 1518 (D. Utah 1996).

[79] NEPA LAW AND LITIGATION, *supra* note 7, at § 4.10[2][i]. *See* Lathan v. Volpe (I), 455 F.2d 1111 (9th Cir. 1971) (highway case).

[80] National Audubon Soc'y v. Hoffman, 132 F.3d 7 (2d Cir. 1997) (timber cutting; good discussion of remedy); Fritiofson v. Alexander, 772 F.2d 1225 (5th Cir. 1985) (wetlands development).

[81] Highland Coop. v. City of Lansing, 492 F. Supp. 1372 (W.D. Mich. 1980).

[82] City of South Pasadena v. Volpe, 418 F. Supp. 854, as amended, 424 F. Supp. 626 (C.D. Cal. 1976) (public safety); Arkansas Community Org. for Reform Now v. Brinegar, 398 F. Supp. 685 (E.D. Ark. 1975) (access and need for freeway), *aff'd mem.*, 531 F.2d 864 (8th Cir. 1976); Society for Protection of New Hampshire Forests v. Brinegar, 381 F. Supp. 282 (D.N.H. 1974) (dangerous bridge).

3. The Environmental Assessment Process: When Must an Impact Statement Be Prepared?

a. Tests for Finding an Action "Major" and Determining Impacts to Be "Significant"

NEPA requires federal agencies to prepare impact statements on "major" federal actions that have a "significant" effect on the human environment. Some courts have adopted a "dual" standard that requires a finding that both the "major" federal action and significance requirements are met. Other courts have adopted a "unitary" standard that requires a finding that a federal action is "major" once a court has determined that it is significant.[83] CEQ adopted the unitary standard in its regulations.[84]

Courts that apply the dual standard have not been too helpful in providing a definition of what a "major" federal action is, as they have decided this question on a case-by-case basis. In the NEPA highway cases, one court held that a $14 million bridge with 60 percent federal funding was a major action,[85] while another court held that a replacement bridge was not a major action.[86] CEQ regulations allow federal agencies to adopt categorical exclusions from the impact statement requirement, and FHWA, like other federal agencies, has used this option to determine which actions are so minor that an impact statement is not required.[87]

The test for determining when a major federal action is significant was stated by the Supreme Court in *Marsh v. Oregon Natural Resources Council*.[88] The Court reviewed the failure of a federal agency to prepare a supplemental rather than an initial impact statement, but the decision clearly applies in both situations. The Court settled a conflict in the lower federal courts on the appropriate judicial review standard to apply to agency decisions that an impact statement is not necessary. The Court held that the "arbitrary and capricious" judicial review standard that requires deference to agency decisions was controlling because the significance question in the case was a factual dispute.

The dispute turned on the accuracy of new information brought to the agency's attention and whether it undermined the agency's initial environmental evaluation. Experts had expressed conflicting views on this question, and the Court held that in this situation the agency must have the

[83] NEPA LAW AND LITIGATION, *supra* note 7, at § 8.06[1]. Unitary standard: Minnesota Public Interest Research Group v. Butz (I), 498 F.2d 1314 (8th Cir. 1974) (wilderness area); City of Davis v. Coleman, 521 F.2d 661 (9th Cir. 1975).

[84] 40 C.F.R. § 1508.18 ("major reinforces but does not have a meaning independent of significantly").

[85] Monroe County Conservation Council, Inc. v. Volpe, 472 F.2d 693 (2d Cir. 1972).

[86] Sierra Club v. Hassell, 636 F.2d 1095 (5th Cir. 1981).

[87] *See* § 2.A.3.c., *infra*.

[88] 490 U.S. 360 (1989). *See* Mandelker, *NEPA Alive and Well: The Supreme Court Takes Two*, 19 ENVTL. L. REP. 10385 (1989).

discretion to rely on the opinions of its own experts. But the Court added that "courts should not automatically defer" to the agency's decision without carefully reviewing the record and satisfying themselves that the agency had made a reasoned decision. This is a restatement of the view that courts in environmental cases should take a "hard look" at agency decision-making.[89]

Since *Marsh*, the federal courts have applied the arbitrary and capricious standard of judicial review when the question is whether an impact statement was necessary.[90] However, some courts have recognized the distinction between factual and legal questions noted in *Marsh*. Courts that applied a more rigorous "reasonableness" standard when reviewing a decision not to prepare an impact statement have continued to apply this standard to threshold legal questions that determine whether NEPA applies.[91]

Courts necessarily review agency findings on the significance of their actions on a case-by-case basis. In a number of cases, the courts have upheld agency findings that a highway project did not have a significant effect.[92] Other highway cases have reached a contrary conclusion.[93] For example, in *Joseph v. Adams*,[94] the court held that the extension of a highway in a rural area at the edge of a city had significant environmental effects. The court found that a number of environmental effects were not adequately discussed, including effects on natural habitats, wetlands, land use, and noise levels adjacent to the highway.

In *National Parks & Conservation Ass'n v. Federal Aviation Admin.*,[95] plaintiffs contended that the Federal Aviation Administration (FAA) had incorrectly determined the noise impact of the airport would have "no significant impact" on the surrounding environment even though they estimated that both the number of aircraft and the level of audibility would double. The court held:

> The FAA has substituted its subjective evaluation for that of recreational users instead of attempting to ascertain the actual impact on the users themselves. Given these circumstances, we cannot say that agency action was "rational" or "reasonable" in determining that the airport would have no significant impact from a noise standpoint on the surrounding recreational environment.[96]

b. Environmental Assessment Procedures

CEQ regulations establish a set of procedures federal agencies must follow to determine whether an impact statement is required. Agencies may adopt regulations specifying "categorical exclusions," which are actions that normally do not require the preparation of an impact statement. If an action is not a categorical exclusion, the agency must carry out an environmental assessment to determine whether an impact statement is necessary. If the agency decides an impact statement is unnecessary, it adopts a Finding of No Significance (FONSI).

Although NEPA refers only to the preparation of a single "statement," the regulations require the preparation of draft and final EISs if an impact statement is necessary.[97] Draft impact statements are sent to public agencies and the public for comment. The final impact statement is followed by a supplemental impact statement if substantial changes or "significant" new information or circumstances affect the proposed action or its environmental impact.[98] CEQ also requires the agency to prepare a Record of Decision.[99] The Record of Decision must state what the decision is, discuss alternatives, and state whether all "practicable means" to avoid or minimize environmental harm from the alternative have been adopted.

Whether FHWA could delegate the duty to prepare an impact statement to a state highway agency was an important issue in the early years of NEPA. Congress amended NEPA in 1975 to authorize a delegation to state highway agencies.[100] Although not limited to the highway program, the amendment was a response to a decision in the Second Circuit that made it difficult for

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[89] The Supreme Court reaffirmed the hard look doctrine in Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976), but has never defined what the hard look doctrine means in the context of NEPA cases.

[90] National Audubon Soc'y v. Hoffman, 132 F.3d 7 (2d Cir. 1997) (timber cutting; good review of judicial standards); Village of Los Ranchos de Albuquerque v. Barnhart, 906 F.2d 1477 (10th Cir. 1990) (bridges); North Buckhead Civic Ass'n v. Skinner, 903 F.2d 1533 (11th Cir. 1990) (highway). *See* NEPA LAW AND LITIGATION, *supra* note 7, at § 8.02[4][c].

[91] Goos v. Interstate Commerce Comm'n, 911 F.2d 1283 (8th Cir. 1990).

[92] Committee to Preserve Boomer Lake Park v. DOT, 4 F.3d 1543 (10th Cir. 1993); Town of Rye v. Skinner, 907 F.2d 23 (2d Cir. 1990) (airport improvement), *cert. denied*, 498 U.S. 1024 (1991); Coalition on Sensible Transp., Inc. v. Dole, 826 F.2d 60 (D.C. Cir. 1987) (interstate highway); No East-West Highway Comm., Inc. v. Chandler, 767 F.2d 21 (1st Cir. 1985) (highway modernization project in small town); Lakes Region Legal Defense Fund v. Slater, 986 F. Supp. 1169, 1997 U.S. Dist. LEXIS 19053 (N.D. Iowa 1997); Falls Road Impact Comm. Inc. v. Dole, 581 F. Supp. 678 (E.D. Wis. 1984) (highway), *aff'd per curiam*, 737 F.2d 1476 (7th Cir. 1984); Mount Vernon Preservation Soc'y v. Clements, 415 F. Supp. 141 (D.N.H. 1976) (minor road reconstruction).

[93] Audubon Soc'y of Cent. Arkansas v. Dailey, 977 F.2d 428 (8th Cir. 1992) (bridge through park; third-party mitigation not effective); Citizens Advocates for Responsible Expansion v. Dole, 770 F.2d 423 (5th Cir. 1985).

[94] 467 F. Supp. 141 (E.D. Mich. 1978).

[95] 998 F.2d 1523 (10th Cir. 1993).

[96] *Id.* at 1533.

[97] 40 C.F.R. § 1502.9. For the comparable FHWA regulations see 23 C.F.R. §§ 771.123, 771.125.

[98] 40 C.F.R. § 1502.9(c). *See also* 23 C.F.R. § 771.130.

[99] 40 C.F.R. § 1505.2. *See also* 23 C.F.R. § 771.127.

[100] § 102(2)(D), 42 U.S.C. § 4332(2)(D), reproduced in Section 2A.1., *supra*. *See* Note, *State Preparation of Environmental Impact Statements for Federally Aided Highway Programs*, 4 FORDHAM URB. L.J. 597 (1976).

FHWA to delegate the preparation of impact statements to state highway agencies.[101] The critical provisions of the amendment authorize delegation to a "State agency or official" with statewide jurisdiction and responsibility if "the responsible Federal official" furnishes guidance, participates in, and independently evaluates a state-prepared impact statement.

The delegation amendment has received minimal judicial interpretation. A district court held that delegation is limited to state agencies, and did not include an impact statement prepared by a joint state-city highway agency that had jurisdiction only in a metropolitan area.[102] The courts have held in most cases that federal supervision of impact statement preparation satisfied the requirements of the amendment even though that participation was arguably minimal in some cases.[103]

TEA-21 provides in Title I Section 1205 that a state may contract with a consultant to provide environmental assessments and impact statements if "the State conducts a review that assesses the objectivity of the environmental assessment, environmental analysis, or environmental impact statement prior to its submission to the Secretary."[104]

c. Categorical Exclusions

Some projects may be so minor that an agency can conclude that they will never require the preparation of an impact statement. CEQ regulations recognize this possibility by authorizing agencies to determine under its NEPA procedures whether the environmental impacts of a particular type of action "normally" do not require either an environmental assessment or an impact statement.[105] CEQ has also suggested in a NEPA Guidance publication that agencies should adopt "broadly defined criteria" to identify categorical exclusions.[106] CEQ regulations also state that agency procedures for categorical exclusions "shall provide for extraordinary circumstances in which a normally excluded action may have significant environmental effects."[107]

The FHWA regulations implement CEQ regulations and guidance for categorical exclusions.[108] They are an example of the way in which federal agencies provide for categorical exclusions from NEPA compliance. The FHWA regulations create two categories of categorical exclusions. One category consists of a list of 20 categorical exclusions found to meet CEQ's categorical exclusion requirements.[109] Not all of these categorical exclusions apply to the highway program. The list includes the approval of utility installations along or across a highway facility and the instruction of bicycle and pedestrian lanes.

A second category includes actions that an applicant may propose for FHWA approval as a categorical exclusion.[110] The applicant must show the conditions or criteria for a proposed categorical exclusion are met and that significant environmental effects will not result. The regulations list 13 examples of actions that applicants may propose as categorical exclusions, although the regulations state that the list is not exhaustive. The list is not limited to highway projects, but includes highway modernization, highway safety or traffic operations improvement projects, and bridge rehabilitation. It also includes proposals for the joint use of right-of-way, which could include the development of airspace over highways. This part of the FHWA regulation implements NEPA Guidance that allows agencies to use broadly defined criteria to designate categorical exclusion.

Another FHWA regulation requires appropriate environmental studies to determine if a categorical exclusion is proper.[111] These studies must be carried out for "[a]ny action which normally would be classified as a CE but could involve unusual circumstances." Unusual circumstances include significant environmental impacts and substantial controversy on environmental grounds. The effect of the FHWA regulations is that the categorical exclusion decision can require a finding that the environmental impact of the exclusion is not significant. The significance finding is required as the basis for undertaking "appropriate environmental studies" to determine whether a categorical exclusion is proper and in determining whether FHWA should approve categorical exclusions proposed by state highway agencies. This significance finding is identical

[101] Conservation Soc'y of S. Vt., Inc. v. Secretary of Transp. (I), 508 F.2d 927 (2d Cir. 1974), *vacated and remanded*, 423 U.S. 809 (1975).

[102] Greenspon v. Federal Highway Admin., 488 F. Supp. 1374 (D. Md. 1980).

[103] Lange v. Brinegar, 625 F.2d 812 (9th Cir. 1980); Swain v. Brinegar, 542 F.2d 364 (7th Cir. 1976); Conservation Soc'y of S. Vt., Inc. v. Secretary of Transp. (II), 531 F.2d 637 (7th Cir. 1976). *But see* Sierra Club v. Corps of Eng'rs, 701 F.2d 1011 (2d Cir. 1983) (holding FHWA did not independently review critical environmental issues discussed in state impact statement); Essex County Preservation Ass'n v. Campbell, 536 F.2d 956 (1st Cir. 1976) (federal involvement must be serious and significant).

[104] 23 U.S.C. § 112(g). *See* Associations Working for Aurora's Residential Envt. v. Colorado Dep't of Transp., 153 F.3d 1122 (10th Cir. 1998) (oversight held sufficient).

[105] 40 C.F.R. §§ 1501.4(a)(2), 1508.4.

[106] CEQ Guidance Regarding NEPA Regulations, 48 Fed. Reg. 34263 (1983).

[107] 40 C.F.R. §1508.4. *See* City of Grapevine v. Department of Transp., 17 F.3d 1502 (D.C. Cir.) (in applying exception, agency need only consider excluded action, not entire project), *cert. denied*, 513 U.S. 1043 (1994).

[108] 23 C.F.R. § 771.117.

[109] 23 C.F.R. § 771.117(c).

[110] 23 C.F.R. § 771.117(d). *See* West v. Secretary of the Dep't of Transp., 206 F.3d 920 (9th Cir. 2000) (project not appropriate for documented categorical exclusion); Hell's Canyon Preservation Council v. Jacoby, 9 F. Supp. 2d 1216 (D. Or. 1998) (applying provision in regulation classifying modernization of road as categorical exclusion).

[111] 23 C.F.R. § 771.117(b).

to the finding an agency makes when it decides that an impact statement is not necessary.

The significance issue in categorical exclusion cases arose in *City of Alexandria v. Federal Highway Administration*.[112] The court reviewed a decision by FHWA to approve as a categorical exclusion a traffic management system proposed for a major interstate highway in the Washington, D.C., metropolitan area. The city objected to a ramp metering system, which was not then an action FHWA could approve as a categorical exclusion.[113] FHWA approved the ramp metering system under another categorical exclusion category then in effect. The city objected that FHWA's approval required additional environmental studies because the ramp metering system would divert traffic elsewhere. The court applied the arbitrary and capricious standard of judicial review to the FHWA approval and rejected the city's claim. It found the ramp metering system could be operated without traffic diversion. This case indicates that courts will apply to a significance decision for a categorical exclusion the same arbitrary and capricious judicial review standard the Supreme Court applies to decisions that the environmental impact of an action is not significant.[114]

d. Environmental Assessments and FONSI

As a basis on which to decide whether to prepare an impact statement, CEQ regulations authorize the preparation of an environmental assessment.[115] An environmental assessment is to "[b]riefly provide sufficient evidence and analysis for determining" whether to prepare an impact statement or a FONSI.[116] An environmental assessment must also discuss the need for the proposal, its alternatives, and its environmental impacts. An agency adopts a FONSI if it decides on the basis of the environmental assessment that an impact statement is not necessary.[117]

FHWA regulations elaborate on CEQ requirements. The regulations state that an environmental assessment must: "determine which aspects of the proposed action have potential for social, economic, or environmental impact; [and] identify alternatives and measures which might mitigate adverse environmental impacts…."[118] The FHWA regulations contemplate the possibility that mitigation measures contained in an environmental assessment may make the preparation of an impact statement unnecessary.

CEQ regulations do not authorize the discussion of mitigation measures in environmental assessments, but CEQ has indicated that agencies can rely on mitigation measures to find that an action does not have a significant effect. These measures must be imposed by regulation or submitted as part of the original proposal.[119] The courts have held that agencies may rely on mitigation measures as a basis for deciding that a project does not require an impact statement.[120] CEQ regulations do not require public review of an environmental assessment, but "to the extent practicable" the agency must include the public, as well as applicants and other federal agencies, in the environmental assessment preparation process.[121]

4. Scope and Content of an EIS

a. Scope of the Project That Must Be Considered

i. Program Impact Statements.—An agency may sometimes propose more than one project for approval, or may consider a plan or program that includes a number of individual projects the agency plans to implement after it adopts the plan or program. In this situation, the proper agency response is to consider the preparation of a program impact statement. NEPA does not require or authorize program impact statements, but NEPA practice recognizes them, and CEQ has confirmed that agencies must prepare program impact statements when they are appropriate in these situations.

An EIS must be included "in every recommendation or report on proposals for legislation or other major federal actions significantly affecting the quality of the human environment."[122] As noted earlier, *Kleppe v. Sierra Club*,[123] the leading Supreme Court case that interpreted the "proposal" requirement, also provided guidance on when agencies are required to prepare program impact statements. In *Kleppe,* the plaintiffs argued that a program impact statement was necessary

[112] 756 F.2d 1014 (4th Cir. 1985). *Accord* Hell's Canyon Preservation Council v. Jacoby, 9 F. Supp. 2d 1216 (D. Or. 1998) (applying provision on regulation classifying modernization of road as categorical exclusion).

[113] 23 C.F.R. § 771.117(d)(2).

[114] *See also* National Trust for Historic Preservation v. Dole, 828 F.2d 776 (D.C. Cir. 1987) (court applied arbitrary and capricious standard to uphold categorical exclusion of suicide prevention barrier on park bridge). *But see* Public Interest Research Group v. Federal Highway Admin., 884 F. Supp. 876 (N.J.) (applying reasonableness standard), *aff'd mem.*, 65 F.3d 163 (3d Cir. 1995); *See* Section C.1., *supra*.

[115] 40 C.F.R. §§ 1501.3, 1501.4(a)-(e). *See* Committee to Save Boomer Lake Park v. Department of Transp., 4 F.3d 1543 (10th Cir. 1993) (regulation does not mean an environmental assessment and FONSI are never appropriate if an agency normally requires an impact statement for a certain class of action).

[116] 40 C.F.R. § 1508.9. *See also* 23 C.F.R. § 771.119.

[117] 40 C.F.R. § 1501.4(e).

[118] 23 C.F.R. § 771.119(b).

[119] *CEQ, Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, Question 40*, 46 Fed. Reg. 18026 (1981).

[120] A leading case is Cabinet Mountains Wilderness/Scotchman's Peak Grizzly Bears v. Peterson, 685 F.2d 678 (D.C. Cir. 1982) (exploratory drilling in wilderness area held mitigated). For a highway case see Joseph v. Adams, 467 F. Supp. 141 (E.D. Mich. 1977) (environmental effects of highway extension held not sufficiently mitigated).

[121] 40 C.F.R. § 1501.4(e)(2). *See* Committee to Preserve Boomer Lake Park v. DOT, 4 F.3d 1543 (10th Cir. 1993) (public review not required).

[122] NEPA § 102(2)(c), 42 U.S.C. § 4332(2)(C).

[123] 427 U.S. 390 (1976); *see* § 2.B.4., *supra*.

for a regional coal mining plan. The Court held that a regional EIS is required only if the federal agency has actually made a proposal for a major federal action with respect to an entire region. Contemplation and an underlying study of a project that may be regional in nature do not necessarily result in a proposal for a major federal action. Simply because a federal agency conducts a study with the purpose of acquiring background environmental information to use in analyzing individual local projects does not mean that this study, by itself, is a proposal for a major federal action on a regional basis.

The courts have applied *Kleppe* to federal highway cases. *National Wildlife Federation v. Appalachia Regional Commission*[124] considered a network of highways designed to facilitate development within Appalachia. The original proposal, submitted in 1965, covered 13 states and more than 3,000 miles of road. The major issue was whether NEPA required a programmatic EIS for an ongoing but mostly completed federally-assisted highway development project. Because the development was 80 percent complete, it was clearly well beyond the planning stages. As a practical matter, the Court found that ongoing environmental evaluations would serve little useful purpose. The Court indicated that it would have required a program EIS at the time the project was first proposed.

National Wildlife, nonetheless, makes a number of general observations worthy of note. Regional EIS's should focus on choice of method, general locations, area-wide air quality, and the land use implications of alternate transportation systems.[125] A program impact statement should look forward and take into account "broad issues" relevant to program design.[126] To be effective and to serve its purpose, a program EIS must promote better decision-making.[127] "A multi-phase federal program like a highway regional project is a probable candidate for a programmatic EIS."[128] In light of the *National Wildlife* holding, the EIS must serve some useful purpose and does not have to be prepared for projects already substantially under way.

National Wildlife also indicates that an agency cannot avoid a program EIS by disguising a regional project as an accumulation of smaller unrelated projects.[129] Yet the case further suggests that an agency has discretion to decide whether a program EIS is required and will not be overturned by the courts unless there is a showing of capricious or arbitrary action.[130] *National Wildlife* states that the courts look at two considerations when reviewing an agency's decision: (1) is the program impact statement sufficiently forward-looking so as to make a contribution to the decision-making process, and (2) is the decision maker segmenting the overall program so as to constrict the original environmental evaluation?[131]

ii. Tiered Environmental Impact Statements.—Tiering refers to coverage of general matters in a broad EIS followed by a more narrow analysis. Under CEQ regulations, the subsequent analytical report incorporates by reference the general discussions and concentrates solely on issues specific to a later proposal.[132] Tiering is also appropriate in moving from a broad plan to one that is more narrow as well as from a site specific statement at one stage of a project to a supplemental statement at a later stage.[133] A clear purpose of tiering is to allow a lead agency to focus only on issues that are ripe for discussion and exclude extraneous issues.[134]

CEQ regulations encourage the tiering of EIS's. When an agency prepares a program EIS and later prepares a site-specific statement on a project included within the program impact statement, the site-specific statement may summarize the issues discussed in the program statement by reference. It should concentrate only on environmental issues specific to the subsequent action.[135]

Controversies arise over tiered EIS's when a federal agency adopts a program impact statement for a systemwide project. The question then arises whether the agency must develop a site-specific impact statement for each sub-unit of the systemwide project. *Save our Sycamore v. Metropolitan Atlanta Rapid Transit Authority*[136] holds that the answer to this problem turns on whether the relevant environmental information in the program impact statement parallels that of the subunit project.

Save our Sycamore considered an EIS prepared on an urban mass transit project for the Atlanta metropolitan area. The court concluded that the systemwide program EIS was adequate, and that the Transit Authority was not required to file an EIS in connection with each rapid transit station. *Save our Sycamore* is consistent with earlier decisions holding that a project does not require a site-specific impact statement if its impacts were adequately covered by an earlier program impact statement[137]

The court in *Save our Sycamore* listed four factors it felt were relevant when an agency decides whether to follow a program impact statement with a site-specific impact statement:

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[124] 677 F.2d 883 (D.C. Cir. 1981).

[125] National Wildlife, *supra* at 888 citing 44 Fed. Reg. 56,240 (1979) (DOT Order implementing CEQ's new NEPA regulations).

[126] *Id.* at 888.

[127] *Id.* at 888–90.

[128] *Id.* at 888.

[129] *Id.* at 890.

[130] *Id.* at 889.

[131] *Id.*

[132] 40 C.F.R. § 1508.28.

[133] *Id.*

[134] *Id. See also* Friends of Southeast's Future v. Morrison, 153 F.3d 1059 (9th Cir. 1998) (cannot do general programmatic analysis in site specific impact statement).

[135] 40 C.F.R. § 1502.20.

[136] 576 F.2d 573 (5th Cir. 1978).

[137] *See, e.g.*, Headwaters, Inc. v. Bureau of Land Mgt., 914 F.2d 1174 (9th Cir. 1990); Minn. Pub. Interest Research Group v. Butz, 498 F.2d 1314 (8th Cir. 1974) (timber sale).

> 1. A comparison of the cost of the specific project with the cost of the overall project.
>
> 2. Whether the specific project creates environmental issues and problems different from those of the overall project.
>
> 3. Whether information relevant to the specific project parallels that of the project as a whole.
>
> 4. Whether the specific project, if viewed in isolation, would constitute a major federal action for which an environmental impact statement would have to be prepared.[138]

The court cautioned that a holding that a program impact statement adequately covers a later specific project does not necessarily mean that the environmental assessment of the specific project is adequate.

In *Ventling v. Bergland*,[139] property owners and conservation interests sought to enjoin construction of a road that was an element of a timber sale contract. The court held the program impact statement included a comprehensive analysis of the environmental impacts of timber management throughout the national forest, including transportation. The particular forest in question had no feature that would distinguish it from the rest of the forest so far as impacts caused by the building of a road were concerned, so a site-specific statement was not required[140] "[W]here the programmatic environmental impact statement is sufficiently detailed, and there is no change in circumstances or departure from policy in the programmatic environmental impact statement, no useful purpose would be served by requiring a site-specific environmental impact statement."[141]

City of Tenakee Springs v. Block[142] is a similar case in which the court reviewed a site-specific impact statement for a road in a national forest. The court noted that NEPA requires both a programmatic and site-specific impact statement when there are large-scale plans for regional development. A programmatic impact statement had been prepared for the forest, but the court held it was not site specific and did not indicate whether roads should be built. The court rejected the site-specific impact statement prepared for the agency. It held an agency may determine the scope of its actions that are covered by NEPA, but does not have the discretion to determine how specific an impact statement must be in order to comply with NEPA. This is a matter for the courts.

[138] 576 F.2d at 576.

[139] 479 F. Supp. 174 (D.S.D. 1979).

[140] *Id.* at 180.

[141] *Id.* at 180.

[142] 778 F.2d 1402 (9th Cir. 1985).

b. Content of an EIS

i. Is the Impact Statement Adequate? Judicial Review Standards.—Judicial review of the adequacy of an impact statement is known as procedural judicial review,[143] but the standard of review courts apply to the review of EIS's is not entirely clear. In *Marsh v. Oregon Natural Resources Council*,[144] the Supreme Court adopted the "arbitrary and capricious" standard of judicial review for cases in which an agency decides not to prepare an impact statement. The Court has not yet decided whether this standard applies to the judicial review of impact statement adequacy.

Some circuits follow *Marsh* and apply the arbitrary and capricious standard to the review of impact statements.[145] Other circuits continue to review impact statement adequacy by applying a "reasonableness" standard.[146] The Court rejected this standard in *Marsh* as inappropriate for the review of decisions whether to prepare an impact statement.[147] However, *Marsh* indicated that judicial review under the two standards does not differ notably.

Courts must also adopt criteria that define when an impact statement is adequate to assist them in deciding whether the agency was arbitrary and capricious or unreasonable in approving the impact statement. A number of pre-*Marsh* cases often described the rule applied to the review of impact statements as a "rule of reason,"[148] and courts continue to take this view.[149] An important highway case summarized the rules that apply to the review of impact statements:

> [T]he…[impact statement] must set forth sufficient information for the general public to make an informed evaluation, …and to make a reasoned decision after balancing the risks of harm to the environment against the benefits to be derived from the proposed action. [The impact statement gives] assurance that stubborn problems or serious criticisms have not been "swept under the rug."[150]

[143] *See* Note, George K. Posh, *NEPA: As Procedure it Stands, as Procedure it Falls*, 29 WILLAMETTE L. REV. 365 (1993).

[144] 490 U.S. 360 (1989). This case is discussed in Section 2.A.3.a, *supra*.

[145] *E.g.*, Sierra Club v. Marita, 46 F.3d 606 (7th Cir. 1995) (national forests); North Buckhead Civic Ass'n v. Skinner, 903 F.2d 1533 (11th Cir. 1990) (highway).

[146] Or. Natural Resources Council v. Lowe, 109 F.3d 521 (9th Cir. 1997).

[147] *E.g.*, Or. Natural Resources Council v. Lowe, 109 F.3d 521 (9th Cir. 1997) (forest management plan).

[148] Highway cases: Druid Hills Civic Ass'n, Inc. v. FHA, 772 F.2d 700 (11th Cir. 1985); Stop H-3 Ass'n v. Dole, 870 F.2d 1419 (9th Cir. 1989); Sierra Club v. United States Army Corps of Engr's, 701 F.2d 1011 (2nd Cir. 1983); Iowa Citizens for Envtl. Quality, Inc. v. Volpe, 487 F.2d 849 (8th Cir. 1973).

[149] *E.g.*, Or. Natural Resources Council v. Lowe, 109 F.3d 521 (9th Cir. 1997) (forest management plan).

[150] Sierra Club, 701 F.2d at 1029 (citations omitted). For additional discussion *see* NEPA LAW AND LITIGATION, *supra* note 7, at § 10.05.

ii. Alternatives That Must Be Discussed, Including the Appropriate Level of Detail for Each Alternative.—CEQ has described the requirement that federal agencies discuss alternatives to their actions as the "heart" of the EIS.[151] CEQ regulations state that agencies are to consider the no-action alternative, other "reasonable courses of action," and mitigation measures not in the proposed action.[152] The leading Supreme Court case on an agency's duty to consider alternatives is *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*[153] In a case involving proceedings for the licensing of nuclear power plants, the Court adopted a "rule of reason" for the consideration of alternatives that a court of appeals had adopted in an earlier case[154] and added:

> Common sense also teaches us that the "detailed statement of alternatives" cannot be found wanting simply because the agency failed to include every alternative device and thought conceivable to the mind of man. Time and resources are simply too limited to hold that an impact statement fails because the agency failed to ferret out every possible alternative, regardless of how uncommon or unknown that alternative may have been at the time the project was approved.[155]

Section 102(2)(E) of NEPA, which is quoted at the beginning of this section, also requires agencies to consider alternatives to their actions.[156] This section applies even when an agency does not prepare an impact statement, and a leading case has held that it is "supplemental and more extensive" than the duty to consider alternatives in impact statements.[157]

An agency's definition of the purpose of its project can limit the alternatives it is required to discuss.[158] For example, the agency can define an airport project as an "airport expansion" project, and this definition can limit alternatives to those that will meet this need. The courts have usually required agencies to consider alternatives that would carry out the project in a different manner, such as an alternative that would require only a two-lane rather than a four-lane highway.[159] However, some cases do not require consideration of alternative sites or project modifications.[160] Courts have also refused to require consideration of an alternative that requires the abandonment of a proposed project,[161] or an alternative that is speculative or not feasible.[162] Neither must an agency always consider an alternative that would require new legislative or administrative action.[163]

CEQ regulations require the discussion of the no-action alternative, which contemplates that the proposed project will not be built at all.[164] However, in highway cases the courts have almost always upheld the rejection of a no-action alternative because it would not meet the needs the highway would serve.[165]

An agency's discussion of alternatives will be influenced by the range of alternatives it considers, and an agency can considerably narrow its assessment if it considers only a very narrow range of alternatives in addition to the one it proposes. Most courts have held that an agency's decision on the range of alternatives it would consider was reasonable.[166] *Fayetteville Area*

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[151] 40 C.F.R. § 1502.14.

[152] 40 C.F.R. § 1508.25(b).

[153] 435 U.S. 519 (1978).

[154] Natural Resources Defense Council, Inc. v. Morton, 458 F.2d 827 (D.C. Cir. 1972).

[155] 435 U.S. at 551.

[156] National Wildlife Fed'n v. Snow, 561 F.2d 227 (D.C. Cir. 1976) (highway regulations).

[157] Environmental Defense Fund, Inc. v. Corps of Eng'rs, 492 F.2d 1123 (5th Cir. 1974). *Accord*, Bob Marshall Alliance v. Hodel, 852 F.2d 1223 (9th Cir. 1988), *cert. denied*, 489 U.S. 1066 (1989).

[158] *See* City of Alexandria v. Slater, 198 F.3d 862 (D.C. Cir. 1999) (upholding transportation and safer objectives for new bridge and rejecting argument that agency should have prioritized environmental goals); Concerned Citizens Alliance, Inc. v. Slater, 176 F.3d 686 (3d Cir. 1999) (upholding rejection of alignment for rebuilt bridge and building second bridge as alternatives to bridge improvement project); Associations Working for Aurora's Residential Envt. v. Colorado Dep't of Transp., 153 F.3d 1122 (10th Cir. 1998) (mass transit did not meet need of highway project properly defined as a project to relieve traffic congestion); City of Grapevine v. Department of Transp., 17 F.3d 1502 (D.C. Cir. 1994) (airport expansion); Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190 (D.C. Cir.) (same), *cert. denied*, 502 U.S. 994 (1991); North Buckhead Civic Ass'n v. Skinner, 903 F.2d 1533 (11th Cir. 1990) (must consider alternative partially meeting need for highway project).

[159] Coalition for Canyon Preservation v. Bowers, 632 F.2d 774 (9th Cir. 1980). *Accord*, I-291 Why? Ass'n v. Burns, 517 F.2d 1077 (2nd Cir. 1975) (alternative highway routes).

[160] Corridor H Alternatives, Inc. v. Slater, 166 F.3d 368 (D.C. Cir. 1998) (upheld decision to build four-lane highway alternatives; could not adequately address issues such as roadway deficiencies, safety considerations, and regional system linkage); Morongo Band of Mission Indians v. Federal Aviation Admin., 161 F.3d 569 (9th Cir. 1999) (rejection of alternative for airport enhancement that would have avoided Indian reservation); Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190 (D.C. Cir.) (airport expansion), *cert. denied*, 502 U.S. 994 (1991); Sierra Club v. United States Dep't of Transp., 664 F. Supp. 1324 (N.D. Cal. 1987) (need not consider repair or alternative alignment for road).

[161] North Buckhead Civic Ass'n v. Skinner, 903 F.2d 1533 (11th Cir. 1990) (need not consider a no build/transit alternative to highway project).

[162] Airport Neighbors Alliance, Inc. v. United States, 90 F.3d 426 (10th Cir. 1996) (airport runway expansion); Life of the Land v. Brinegar, 485 F.2d 460 (9th Cir. 1973) (same).

[163] Farmland Preservation Ass'n v. Goldschmidt, 611 F.2d 233 (8th Cir. 1979) (need not consider alternative that would require governor to withdraw highway from Interstate system).

[164] 40 C.F.R. § 1502.14(2).

[165] *E.g*. North Buckhead Civic Ass'n v. Skinner, 903 F.2d 1533 (11th Cir. 1990); Lake Hefner Open Space Alliance v. Dole, 871 F.2d 943 (10th Cir. 1989); Farmland Preservation Ass'n v. Goldschmidt, 611 F.2d 233 (8th Cir. 1979); Monroe County Conservation Council, Inc. v. Adams, 566 F.2d 419 (2d Cir. 1977), *cert. denied*, 435 U.S. 1006.

[166] City of Carmel-by-the-Sea v. United States DOT, 95 F.3d 892 (9th Cir. 1996) (highway project); Laguna Greenbelt, Inc. v. United States DOT, 42 F.3d 517 (9th Cir. 1994) (tollway); Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190 (D.C.

Chamber of Commerce v. Volpe[167] summarizes the judicial view in these cases. It held that the agency had considered an adequate number of alternatives to the construction of a highway: "[A]n infinite variety of alternatives is permissible…[T]here must be an end to the process somewhere…. So long as there are unexplored and undiscussed alternatives that inventive minds can suggest, without a rule of reason, it will be technically impossible to prepare a literally correct environmental impact statement."[168]

The courts have on occasion held that an agency's examination of alternatives was inadequate. In *Swain v. Brinegar,* [169] the court found that a corridor selection process did not consider in detail any major alternatives. Mere review of the selection process was held inadequate as a consideration of alternatives.[170] Other cases have found that an agency cannot merely state that an alternative was investigated and found to be unsatisfactory. Details must be provided.[171]

However, NEPA does not require that all environmental concerns be discussed in exhaustive detail.[172] The only requirement is that alternatives be discussed in a reasonable manner so as to permit a reasonable choice.[173] For example, the requirement that an agency need not discuss speculative alternatives[174] means that a discussion of extreme possibilities is not necessary.[175] The courts note that requiring the consideration of remote and speculative purposes serves no purpose under NEPA.[176]

A discussion of alternatives should be presented in a straightforward, compact, and comprehensible manner capable of being understood by the reader. Extensive cross referencing should be avoided.[177] In most cases the courts have upheld an agency's discussion of alternatives that would require the abandonment of a project,[178] and of alternatives that would require the agency to carry out the project in a different manner.[179]

There is no requirement under NEPA that the discussion of alternatives cover a specified number of pages. All that is required is that an agency reasonably study, develop, and describe alternatives to the proposed action in a detailed statement.[180] However, one court has found that while quantity does not equal quality, an assessment of alternatives that only covered two pages raises a red flag that the alternatives have not been discussed in great enough detail.[181] Another court has stated that brevity alone does not mean that a discussion of alternatives in an EIS is inadequate.[182]

iii. Segmentation.—Segmentation problems usually arise when a federal agency plans a number of related actions but decides to prepare an EIS on each action individually. In these circumstances, courts must decide whether an agency's actions that significantly affect the environment have been improperly segmented from other related actions. The principal issue in these cases is whether a group of related actions constitutes a single action for purposes of filing an EIS.

Agencies may not evade their responsibilities under NEPA by artificially dividing a major federal action into smaller components, each without "significant" impact.[183] Courts can prohibit segmentation, or require a single EIS for two or more projects, if an agency has abused the underlying purposes of NEPA.[184] To prevent this abuse, a court may prohibit segmentation of a proposed action when those segmented actions have cumulative or synergistic environmental impacts.[185] This approach applies even when a project is still in the planning stage if it is connected to one the agency has formally proposed.[186]

CEQ regulations require "connected actions" to be considered together in a single EIS.[187] "Connected actions" are defined as actions that: "(i) Automatically

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Cir.) (airport expansion), *cert. denied*, 502 U.S. 994 (1991); Monroe County Conservation Council, Inc. v. Adams, 566 F.2d 419 (2d Cir. 1977) (highway), *cert. denied*, 435 U.S. 1006.

[167] 515 F.2d 1021 (4th Cir. 1975).

[168] *Id.* at 1027.

[169] 517 F.2d 766 (7th Cir. 1975).

[170] *Id.* at 775.

[171] Rankin v. Coleman, 394 F. Supp. 647 (E.D.N.C. 1975), *modified on other grounds*, 401 F. Supp. 664 (E.D.N.C. 1975) (alternative of improving existing road).

[172] Britt v. United States Army Corps of Engr's, 769 F.2d 84 (2d Cir. 1985). *See also* Monarch Chemical Works, Inc. v. Exxon, 466 F. Supp. 639 (D. Neb. 1979); State of Ohio, ex rel. Brown v. EPA, 460 F. Supp. 248 (S.D. Ohio 1978); City of New Haven v. Chandler, 446 F. Supp. 925 (D. Conn. 1978).

[173] Natural Resources Defense Council, Inc. v. Morton, 458 F.2d 827 (D.C. Cir. 1972).

[174] National Indian Youth Council v. Watt, 664 F.2d 220 (10th Cir. 1981); Save Lake Washington v. Frank, 641 F.2d 1330 (9th Cir. 1981); Natural Resources Defense Council v. Callaway, 524 F.2d 79 (2d Cir 1975).

[175] Carolina Envtl. Study Group v. United States, 510 F.2d 796 (D.C. Cir. 1975).

[176] Lake Erie Alliance for Protection of Coastal Corridor v. United States Army Corps of Engr's, 526 F. Supp. 1063 (W.D. Penn. 1981), *aff'd*, 707 F.2d 1392 (3rd Cir.), *cert. denied*, 464 U.S. 915 (1983).

[177] Natural Resources Defense Council v. Callaway, 524 F.2d 79 (2d Cir. 1975).

[178] North Buckhead Civic Ass'n v. Skinner, 903 F.2d 1533 (11th Cir. 1990) (highway); Suburban O'Hare Comm'n v. Dole, 787 F.2d 186 (7th Cir.) (airport), *cert. denied*, 479 U.S. 847 (1986); Sierra Club v. Adams, 578 F.2d 389 (D.C. Cir. 1978) (highway).

[179] Corridor H Alternatives v. Slater, 166 F.3d 366 (D.C. Cir. 1999) (highway); Citizens Expressway Coalition v. Lewis, 523 F. Supp. 396 (E.D. Ark. 1981) (same).

[180] Conservation Council of N.C. v. Froehlke, 340 F. Supp. 222 (M.D.N.C. 1972).

[181] Appalachian Mountain Club v. Brinegar, 394 F. Supp. 105 (D.N.H. 1975).

[182] Woida v. United States, 446 F. Supp. 1377 (D. Minn. 1978).

[183] Coalition on Sensible Transp. (COST) v. Dole, 826 F.2d 60 (D.C. Cir. 1987); Taxpayers Watchdog, Inc. v. Stanley, 819 F.2d 294 (D.C. Cir. 1987).

[184] Environmental Defense Fund v. Marsh, 651 F.2d 983 at 999 (5th Cir. 1981), citing Kleppe, *supra*.

[185] *Id.*

[186] *Id.*

[187] 40 C.F.R. § 1508.25(a)(1).

trigger other actions which may require environmental impact statements; (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously; (iii) Are interdependent parts of a larger action and depend on the larger action for their justification."[188]

Thomas v. Peterson[189] illustrates how these CEQ regulations are applied. The controversy in this case centered on a road to be built to a logging site. The issue was whether the road reconstruction and the timber sales were "connected actions." The court in *Thomas* discussed the factors it considered in determining whether these actions were connected:[190]

> 1. How is the road characterized? What is the reason for building the road?
>
> 2. What is the statement of purpose in the environmental assessment?
>
> 3. Why was the "no action alternative" rejected?
>
> 4. What is the "benefit" of the cost-benefit analysis?
>
> 5. Are there other benefits claimed?
>
> 6. Is the road project segmented to accommodate the connected act?

Applying these tests to the timber road, the Court found there was a clear nexus between the timber contracts and the improvements to be made to the road. The Court concluded that: "It is clear that the timber sales cannot proceed without the road, and the road would not be built but for the contemplated timber sales."[191]

FHWA has adopted regulations for deciding when segmentation is appropriate.[192] These regulations incorporate factors adopted in the court decisions and authorize the segmentation of any project that:

> (1) connects logical termini and is of sufficient length to address environmental matters on a broad scope;
>
> (2) has independent utility or independent significance, i.e., is usable and a reasonable expenditure even if no additional transportation improvements in the area are accomplished; and
>
> (3) will not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.[193]

Highway segmentation cases hinge on the weight given each of these three criteria by the courts. "[I]n the context of a highway within a single metropolitan area—as opposed to projects joining major cities—the 'logical terminus' criterion is usually elusive"[194] because it is difficult to identify. Courts have usually assigned this factor only modest weight and have instead focused on whether a segment has independent utility.[195]

Segmentation is usually approved in cases that involve a network of highways within a metropolitan area. In these cases an EIS is usually not required on the entire system.[196] Impact statements may be prepared on individual segments of the metropolitan highway system unless the segmentation is clearly arbitrary.[197] The segment must also not irretrievably commit future resources.[198] The courts also uphold segmentation when the segment has independent utility, such as the relief of traffic congestion.[199] In a case concerning an airport enhancement project, the court held that different phases of the airport expansion were not improperly segmented.[200]

Where segmentation is disapproved in federal highway cases it is usually because of improper termini. In these cases, the project termini are usually illogical and often designated so that nondisruptive segments are created. But the construction of those nondisruptive segments then commits the agency to construction of a segment that might have adverse environmental impacts.[201]

In *Dickman v. City of Santa Fe*,[202] plaintiffs claimed that the City of Santa Fe, acting as a lead agency, improperly segmented a portion of a proposed highway to avoid an EIS as required by NEPA. The proposed highway was to be built in four stages, with only the first three to receive federal funding. The city did not consider the fourth phase as part of the same project

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[188] *Id.*, cited by Save the Yaak Comm. v. Block, 840 F.2d 715 (9th Cir. 1988).

[189] Thomas v. Peterson, 753 F.2d 754 (9th Cir. 1985).

[190] *Id.* at 758.

[191] *Id.* at 758. *But see* Airport Neighbors Alliance v. United States, 90 F.3d 426 (10th Cir. 1996) (airport expansion not related to other airport improvement projects); Headwaters, Inc. v. Bureau of Land Management, 914 F.2d 1174 (9th Cir. 1990) (logging access road did not imply further development).

[192] 23 C.F.R. § 771.111(f) (1987).

[193] *Id.*

[194] COST, *supra* note 183, at 69.

[195] *Id.* at 69. *See also* Piedmont Heights Civic Club v. Moreland, 637 F.2d 430 (5th Cir. 1981).

[196] Indian Lookout Alliance v. Volpe, 484 F.2d 11 (8th Cir. 1973).

[197] Daly v. Volpe, 514 F.2d 1106 (9th Cir. 1975).

[198] College Garden Civics Ass'n v. United States Dep't of Transp., 522 F. Supp. 377 (D. Md. 1981); River v. Richmond Metro. Auth., 359 F. Supp. 611 (E.D. Va. 1973); Movement Against Destruction v. Volpe, 361 F. Supp. 1360 (D. Md. 1973).

[199] Preserve Endangered Areas of Cobb's History, Inc. v. United States Army Corps of Eng'rs, 87 F.3d 1242 (11th Cir. 1996); Conservation Law Found. of New England v. FHA, 24 F.3d 1465 (1st Cir. 1994); Save Barton Creek Ass'n v. FHA, 950 F.2d 1129 (5th Cir.), *cert. denied*, 505 U.S. 1220 (1992); Village of Los Ranchos de Albuquerque v. Barnhart, 906 F.2d 1477 (10th Cir. 1990) (bridge had logical terminus), *cert. denied*, 498 U.S. 1109 (1991); Coalition on Sensible Transp. v. Dole, 826 F.2d 60 (D.C. Cir. 1987); Adler v. Lewis, 675 F.2d 1085 (9th Cir. 1982). *See also* Lange v. Brinegar, 625 F.2d 812 (9th Cir. 1980); National Wildlife Fed'n v. Lewis, 519 F. Supp. 523 (D. Conn. 1981); Daly, *supra* note 197, at 1106.

[200] Morongo Bank of Mission Indians v. Federal Aviation Admin., 161 F.3d 569 (9th Cir. 1999).

[201] Swain, *supra* note 103, at 766. *See also* Named Individual Members of the San Antonio Conservation Soc'y v. Texas Highway Dep't 446 F.2d 1013 (5th Cir. 1971), *cert. denied*, 406 U.S. 933 (1972); Patterson v. Exon, 415 F. Supp. 1276 (D. Neb. 1976). *Cf.* Historic Preservation Guild of Bay View v. Burnley, 896 F.2d 985 (6th Cir. 1990).

[202] 724 F. Supp. 1341 (D.N.M. 1989).

and thus did not include it in the EIS. The court found that the evidence was "overwhelming" that the success of the first three phases depended on the completion of the fourth phase. The phases were "so interdependent that it would be unwise or irrational to complete one without the other."[203] In addition, the completion of the first three phases necessarily committed expenditure of funds for the fourth phase, or else the road would not serve any useful purpose.[204]

iv. Cumulative, Indirect, and Secondary Impacts.—An agency must also consider the cumulative impacts of its actions. This duty is different from the prohibition on improper segmentation of actions.[205] CEQ regulations define cumulative impacts as "the incremental impact of the action when added to past, present, and reasonably foreseeable future actions."[206] An agency must consider the cumulative impacts of other projects even if they are not projects that will be carried out or approved by the agency.

The Supreme Court case of *Kleppe v. Sierra Club*, discussed *supra*, presents a problem in the interpretation of an agency's duty to discuss cumulative impacts. That case held that an agency is required to prepare an impact statement only on final "proposals" for an action. The question that arises is whether an agency, in its cumulative impact analysis, must consider the cumulative impact of actions that are not yet final proposals. Most cases have answered this question in the negative.[207] The cases have also considered whether an agency's consideration of cumulative impacts was adequate.[208]

NEPA is also concerned with indirect as well as direct environmental effects.[209] Any agency should discuss secondary, or indirect, effects in impact statements and in environmental assessments that determine whether an EIS is necessary.[210] The indirect effects to be considered must, however, be reasonably foreseeable.[211] An agency is only required to reasonably forecast; speculation is not required.[212]

City of Davis v. Coleman [213] is a leading case that addresses the duty to consider the indirect and secondary effects of highway projects. The court held that an impact statement on a proposed highway interchange must consider the indirect impacts of the interchange, such as population growth and land development in the area. Other cases have considered the same issue.[214]

v. Mitigation.—NEPA requires that an agency must discuss "any adverse environmental effects that cannot be avoided should the proposal be implemented." This requirement means that an EIS must discuss measures that can mitigate harmful environmental impacts.[215] Mitigation, according to CEQ regulations, can be accomplished by five different means:[216]

1. Avoid the impact altogether by not taking action.

2. Minimize the impact by limiting the magnitude of the action.

3. Rectify the impact by repairing the affected environment.

4. Reduce the impact over time by appropriate maintenance operations during the life span of the action.

5. Compensate for the impact by replacing resources.

A look at the mitigation measures that could be taken in a project makes sense in light of the goals and purposes of NEPA, one of which is to force agencies to take a hard look at environmental consequences. A discussion of mitigation measures for projects covered by an EIS should most certainly help the agency make a more informed decision.

Problems often arise, however, in deciding what the duty to discuss mitigation measures means. Must mitigation measures be discussed in sufficient detail only for purposes of evaluation, or must a fully developed mitigation plan be laid out?

The Supreme Court in *Robertson v. Methow Valley Citizens Council*[217] adopted the former approach. In *Robertson*, citizens groups challenged a Forest Service

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[203] *Id.* at 1346, citing Park County Resource Council v. United States Dep't of Agriculture, 817 F.2d. 609, 623 (10th Cir. 1987).

[204] *Id.* at 1347.

[205] COST, 826 F.2d at 70.

[206] 40 C.F.R. § 1508.7. *See* Coalition on Sensible Transp. v. Dole, 826 F.2d 60, 70 (D.C. Cir. 1987) (interpreting regulation and holding that impact statement may incorporate prior studies on related projects).

[207] Coalition for Canyon Preservation v. Bowers, 632 F.2d 774 (9th Cir. 1980) (road upgrading speculative); Clairton Sportsmen's Club v. Pennsylvania Turnpike Comm'n, 882 F. Supp. 455 (W.D. Pa. 1995) (highway not yet proposed). *But see* Fritiofson v. Alexander, 772 F.2d 1225 (5th Cir. 1985) (*contra*). *See also* City of Carmel-by-the-Sea v. United States DOT, 95 F.3d 892 (9th Cir. 1996).

[208] Discussion held adequate: *E.g.*, Conservation Law Found. of New England v. FHA, 24 F.3d 1465 (1st Cir. 1994) (highway); Coalition on Sensible Transp. v. Dole, 826 F.2d 60 (D.C. Cir. 1987) (same).

Discussion held inadequate: *E.g.*, City of Carmel-by-the-Sea v. United States DOT, 95 F.3d 892 (9th Cir. 1996) (impact of highway project on natural resources).

[209] MPIRG v. Butz, 498 F.2d 1314 (8th Cir. 1974).

[210] Conservation Council of N.C. v. Costanzo, 398 F. Supp. 653 (E.D.N.C. 1975), *aff'd*, 528 F.2d 250 (4th Cir. 1975).

[211] Life of the Land v. Brinegar, 485 F.2d 460 (9th Cir. 1973); State v. Andrus, 483 F. Supp. 255 (D.N.D. 1980). *See also* 40 C.F.R. § 1508.8.

[212] 483 F. Supp. at 260.

[213] 521 F.2d 661 (9th Cir. 1975).

[214] City of Carmel-by-the-Sea v. United States DOT, 95 F.3d 892 (9th Cir. 1996) (growth impacts adequately considered when highway required by existing development); Coalition on Sensible Transp. v. Dole, 826 F.2d 60 (D.C. Cir. 1987) (discussion of impact of highway on communities that relied on tourism held inadequate); Laguna Greenbelt, Inc. v. United States DOT, 42 F.3d 517 (9th Cir. 1994) (discussion of growth-inducing effect of tollroad held adequate); Mullin v. Skinner, 756 F. Supp. 904 (E.D.N.C. 1990) (must discuss growth-inducing effects of bridge).

[215] Robertson v. Methow Valley Citizens Council, *supra*.

[216] 40 C.F.R. § 1508.20.

[217] 490 U.S. 332 (1989).

special use permit for the development and operation of a ski resort on national forest land. The Forest Service prepared an EIS on the project, which included an outline of steps that might be taken to mitigate adverse environmental impacts. Mitigation procedures were intended primarily for local and state governments that controlled the land to be affected by these measures. Plaintiffs claimed that the Forest Service did not comply with NEPA because the impact statement did not provide a detailed mitigation action plan. In the alternative, they argued, the Forest Service had an obligation to provide a "worst case" analysis if it did not have enough information to make definite plans.

The Supreme Court, in a unanimous opinion, held that NEPA did not impose a substantive duty upon federal agencies to include in their EIS a fully developed mitigation plan. The Court rejected the claim that the agency had to prepare a mitigation plan by relying on the purposes and powers of NEPA: "[I]t would be inconsistent with NEPA's reliance on procedural mechanisms—as opposed to substantive, result-based standards—to demand the presence of a fully developed plan that will mitigate environmental harm before an agency can act."[218] A federal agency is required to consider mitigation measures only to the extent that they enable the agency to make a reasoned and informed decision that properly considers all alternatives.

It probably comes as no surprise, then, that the Supreme Court also rejected the worst case analysis requirement. Earlier CEQ regulations did require that uncertain environmental harms be addressed by a worst case analysis, along with the probability or improbability of their occurrence.[219] In 1986, CEQ amended this regulation and required agencies only to provide a credible summary of scientific evidence relevant to evaluating the environmental impact.[220] The Court held that the new regulations better facilitated reasoned decision-making by requiring an evaluation of viable possibilities and by not overemphasizing highly speculative harms.[221]

Robertson also analyzed the interrelationship of federal, state, and local agencies when considering mitigation measures. In this case, environmental problems could not be mitigated unless nonfederal agencies took action.[222] If state and local government bodies have jurisdiction over the areas in which adverse effects must be mitigated, and if these same agencies have the authority to mitigate, a federal agency cannot be expected to act until these local agencies conclude which mitigation measures they deem appropriate. Furthermore, because NEPA places no substantive duty on federal agencies to develop mitigation measures, these agencies should not be required to obtain assurances from third parties that these measures will be taken.

Several cases have held impact statements inadequate because they did not contain or adequately discuss mitigation measures.[223] In a number of other cases the courts have held that mitigation measures included in an impact statement were adequate.[224] As the court held in *Laguna Greenbelt, Inc. v. United States DOT*,[225] a tollway case, "NEPA does not require a fully developed plan that will mitigate all environmental harm before an agency can act; NEPA requires only that mitigation be discussed in sufficient detail to ensure that environmental consequences have been fully evaluated."[226]

The court held that the discussion of mitigation measures was reasonably complete even though the measures might not be completely successful. For example, habitat regeneration might be difficult due to the large size of the impacted area and the poor likelihood of successful regeneration. Wetland projects in the area had not been established long enough to determine whether wetland mitigation measures would be successful. The court also held that assurances that mitigation measures would succeed need not be based on scientific evidence and studies.

Problems may arise if mitigation requirements contained in an impact statement are not implemented. The courts have universally held there is no implied private cause of action to enforce NEPA,[227] and have applied this rule to hold that a cause of action is not available to enforce mitigation requirements contained in impact statements.[228]

[218] *Id.* at 353.

[219] 40 C.F.R. § 1502.22 (1985).

[220] 40 C.F.R. § 1502.22(b) (1987).

[221] Robertson, *supra* note 215*,* at 355–56.

[222] *Id.* at 352 (off-site effects included impact on air quality and the habitat of a wild deer herd).

[223] City of Carmel-by-the-Sea v. United States DOT, 123 F.3d 1142 (9th Cir. 1997) (wetlands mitigation).

[224] Laguna Greenbelt, Inc. v. United States DOT, 42 F.3d 517 (9th Cir. 1994) (tollway); Communities, Inc. v. Busey, 956 F.2d 619 (6th Cir. 1992) (airport improvement); Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190 (D.C. Cir.) (airport expansion), *cert. denied*, 502 U.S. 994 (1991); Provo River Coalition v. Pena, 925 F. Supp. 1518 (D. Utah 1996) (highway).

[225] 42 F.3d 517 (9th Cir. 1994).

[226] *Id.* at 528.

[227] Noe v. Metropolitan Atlanta Rapid Transit Auth., 644 F.2d 434 (5th Cir. 1981) (claim based on failure of system to stay within noise levels specified in impact statement).

[228] Ogunquit Village Corp. v. Davis, 553 F.2d 243 (1st Cir. 1977) (failure to implement mitigation measure for dune stabilization). *See* RICHARD A. CHRISTOPHER & MARGARET L. HINES, ENFORCEMENT OF ENVIRONMENTAL MITIGATION COMMITMENTS IN TRANSPORTATION PROJECTS: A SURVEY OF FEDERAL AND STATE PRACTICE (NCHRP Legal Research Digest No. 42, 1999).

vi. Responses to Comments.—In order to ensure that an EIS is adequate, NEPA requires that "prior to making any detailed statement, the responsible official shall consult with and obtain the comments of a federal agency which has jurisdiction by law or special expertise with respect to the environmental impact involved."[229] "CEQ regulations extended this responsibility to include the duty to obtain comments from any interested agency and the public."[230]

Because federal agencies are required to assess environmental issues by taking a "hard look" at those issues, it should follow that they are required to obtain advice from other federal agencies on the environmental impact of a project if that agency has more expertise in the affected area. "The obvious purpose for requiring such considerations is to obtain views from interested agencies and to ensure an intelligent assessment of the 'significance' of the project's environmental impact."[231] Interagency contacts on major federal actions are also necessary under NEPA, and these contacts must be true consultations. Informal consultation is not adequate. Each agency with an area of expertise relevant to a proposal must submit in writing its view on environmental concerns regarding the proposed project.[232]

Once an agency consults with another agency and receives its comments, what is the sponsoring agency required to do with the comments it receives in order to comply with NEPA? Implicit in the obligation to obtain comments from other interested agencies is the obligation of the requesting agency to consider and respond to comments that it receives.[233] Yet, though NEPA requires a federal agency to consult with other agencies whose expertise may be greater than its own, it is not required to base its determinations of whether an EIS is needed solely on the comments of other agencies.[234] For example, an agency is not required to select an alternative a commentator might consider preferable.[235] However, the sponsoring agency must make an independent environmental assessment of the project, and agency comments must be reasonable, objective, and in good faith.[236] In several cases the courts have reviewed agency responses to comments and have found them adequate.[237]

The Fish and Wildlife Conservation Act (FWCA) also requires consultation procedures that are important to environmental reviews.[238] Federal agencies proposing or issuing permits for projects that affect streams, lakes, or other watercourses must consult with the U.S. Fish and Wildlife Service and other wildlife agencies before approving the project. CEQ has recommended that agencies integrate their NEPA studies with studies required by FWCA.[239] Cases have held that a failure to adequately consider comments by wildlife agencies makes an agency's action arbitrary.[240]

c. Remedies

The usual remedy if an agency does not prepare an adequate EIS is a preliminary injunction. The preliminary injunction remedy is discussed in Section 3.A.2.F., *supra*. This discussion reviews the orders a court can make when it remands the implementation of NEPA responsibilities to an agency, which will determine how the agency must comply with the NEPA process.

5. Supplemental EIS's

Although the text of NEPA makes no reference to supplemental EIS's, CEQ regulations require and the courts frequently hold that an agency can file a supplemental EIS. CEQ regulations require that agencies prepare supplements to draft or final EIS's if (1) the agency makes substantial changes in the proposed action, or (2) if there are significant new circumstances or information relevant to environmental concerns based upon the proposed action or its impacts.[241] Note that the regulations require a supplemental statement for "significant" new circumstances, but require a supplemental statement for "substantial changes" without indicating whether these changes must also be significant. "Significantly" as defined by CEQ requires a consideration of both context and intensity.[242] FHWA has also adopted regulations for the preparation of supplemental impact statements.[243]

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[229] 42 U.S.C. § 4332(2)(c). *See* Blumm & Brown, *Pluralism and the Environment: The Role of Comment Agencies in NEPA Litigation*, 14 HARV. ENVTL. L. REV. 277 (1990).

[230] NEPA LAW AND LITIGATION, s*upra* note 7, at § 10.17, *citing* 40 C.F.R. § 1503.1(a)(3)(4).

[231] Simmans v. Grant, 370 F. Supp. 5, 19 (S.D. Tex. 1974); *see also* 40 C.F.R. § 1500.1(b).

[232] Warm Springs Dam Task Force v. Gribble, 621 F.2d 1017 (9th Cir. 1980).

[233] 40 C.F.R. § 1503.4(a).

[234] State of Cal. v. Block, 690 F.2d 753 (9th Cir. 1982); Save the Bay, Inc. v. United States Corps of Engr's, 610 F.2d 322 (5th Cir. 1980).

[235] Geer v. Federal Highway Admin., 975 F. Supp. 47 (D. Mass. 1997).

[236] Save the Bay, 610 F.2d at 325.

[237] State of N.C. v. Federal Aviation Admin., 957 F.2d 1125 (4th Cir. 1992); Sierra Club v. Adams, 578 F.2d 389 (D.C. Cir. 1978); Geer v. Federal Highway Admin., 975 F. Supp. 47 (D. Mass. 1997).

[238] 16 U.S.C. § 662(a).

[239] 40 C.F.R. §§ 1500.4(k); 1502.25.

[240] Sierra Club v. United States Army Corp of Eng'rs, 541 F. Supp. 1367 (S.D.N.Y. 1982).

[241] 40 C.F.R. § 1502.9(c)(l).

[242] 40 C.F.R. § 1508.27.

[243] 23 C.F R. § 771.135. *See* Price Road Neighborhood Ass'n v. United States Dep't of Transp., 113 F.3d 1505 (9th Cir. 1997) (upholding FHWA regulations requiring a reevaluation rather than an assessment as the basis for determining whether a supplemental statement is necessary).

"In *Marsh v. Oregon Natural Resources Council*,[244] the Supreme Court considered the duty of agencies to prepare supplemental impact statements." "The Court noted the parties' agreement that agencies should apply a 'rule of reason' to the decision to prepare a supplemental statement," and added that a supplemental statement is not needed every time "new information comes to light." "Yet agencies must give a 'hard look' at the environmental effects of their actions even after they have given initial approval to a proposal." "The Court held that the 'arbitrary and capricious' standard of judicial review applies to an agency's decision that a supplemental impact statement is not required." The Court then "decided that the new information presented to the agency in that case was not significant enough to require an impact statement."[245]

In a pre-*Marsh* case, *Essex County Preservation Ass'n v. Campbell*,[246] "the court held that a Governor's moratorium on the construction of a new highway was significant new information that required the preparation of a supplemental impact statement on a highway project." Another case applied *Marsh* "to hold that the listing of a historic area on the National Register of Historic Places was not new information requiring a supplemental impact statement on a highway that would go through the area. The court noted the historic character of the area was taken into account in the planning for the project, so its listing was not new information."[247]

"A court will not require a supplemental statement because of new circumstances when the circumstances claimed to be new were adequately discussed in the impact statement,[248] or when the environmental impacts of the new circumstances are minor or not significant."[249] For example, in *Laguna Greenbelt, Inc. v. United States DOT*,[250] the court held that the effect of wildfires on an area where a tollway was planned did not require a supplemental statement when the wildfires had been discussed in the original impact statement.

6. Administrative Record

a. Scope and Content

NEPA requires federal agencies to develop methods and procedures, in consultation with CEQ, to "insure that presently unquantified amenities and values may be given appropriate weight in decisionmaking along with economic and technical considerations."[251] The courts have also considered this issue. *City of Hanly v. Kleindienst*,[252] a leading case, required that "some rudimentary procedures be designed to assure a fair and informed preliminary decision" on whether an agency should prepare an EIS. If an adequate record is not prepared, an agency may frustrate the purposes of NEPA by merely declaring that an EIS is not necessary.[253]

NEPA does not require a public hearing, and *Hanly v. Kleindienst* held that a public hearing is not required, although it is desirable to ensure that community views are heard.[254] CEQ regulations require federal agencies to hold public hearings or meetings "whenever appropriate" or in accordance with applicable requirements.[255] Other courts have divided on whether public hearings or other forms of public participation are required.[256] If a hearing is held, it is neither "quasi-judicial" nor "quasi-legislative," so no reviewable record is made.[257]

CEQ regulations state that agencies must "[p]rovide notice of NEPA-related hearings, public meetings, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected."[258] In instances when agencies have held public hearings, the courts have been generous in finding that the notice[259] and public participation[260] were adequate.

The Federal Highway Act requires a state to hold a public hearing on highway projects, and FHWA regulations combine this hearing with NEPA procedures.[261] The statute requires the state to submit a

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[244] 490 U.S. 360 (1989).

[245] This material quoted from NEPA LAW & LITIGATION, *supra* note 7, at § 10.18[1].

[246] 536 F.2d 956 (1st Cir. 1976).

[247] Hickory Neighborhood Defense League v. Skinner, 893 F.2d 58 (4th Cir. 1990). *See* NEPA LAW & LITIGATION, *supra* note 7, at § 10.18[2], p. 10-103 and § 10.18[3], p. 10-104.

[248] Laguna Greenbelt, Inc. v. United States DOT, 42 F.3d 517 (9th Cir. 1994); *See also* Village of Grand View v. Skinner, 947 F.2d 651 (2nd Cir. 1992) (effect of new bridge design on traffic); Corridor H Alternatives v. Slater, 982 F. Supp. 24 (D.D.C. 1997) (shift in alignment of highway).

[249] Airport Impact Relief, Inc. v. Wykle, 192 F.3d 197 (1st Cir. 1999) (design changes in highway project); South Trenton Residents Against 29 v. Federal Highway Admin., 176 F.3d 658 (3d Cir. 1999) (same); Price Road Neighborhood Ass'n v. United States Dep't of Transp., 113 F.3d 1505 (9th Cir. 1997) (redesign of highway). NEPA LAW & LITIGATION, *supra* note 7, at § 10.18[3], p. 10-106.

[250] Laguna Greenbelt, Inc. v. United States DOT, 42 F.3d 517 (9th Cir. 1994).

[251] 42 U.S.C. § 4332(2)(b).

[252] 471 F.2d 823 (2d Cir. 1972).

[253] *Id.* at 835.

[254] *Accord* Cobble Hill Ass'n v. Adams, 470 F. Supp. 1077 (E.D.N.Y. 1979).

[255] 40 C.F.R. §§ 1506.6(c), 1606.6(c)(1)(2).

[256] *E.g.,* Kelly v. Selin, 42 F.3d 1501 (6th Cir.) (public participation in rule making held adequate), *cert. denied*, 515 U.S. 1195 (1995); Richland Park Homeowners Ass'n v. Pierce, 671 F.2d 935 (5th Cir. 1982) (*contra*).

[257] Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1971); Lathan v. Volpe, 350 F. Supp. 262 (W.D. Wa. 1972).

[258] 40 C.F.R. § 1506.6(b).

[259] Half Moon Bay Fishermans' Marketing Ass'n v. Carlucci, 857 F.2d 505 (9th Cir. 1988).

[260] Price Road Neighborhood Ass'n, Inc. v. United States Dep't of Transp., 113 F.3d 1505 (9th Cir. 1997).

[261] 23 U.S.C. § 128; 23 C.F.R. §§ 771.111(h); 771.123(h). *See also* Lathan v. Brinegar, 506 F.2d 677 (9th. Cir. 1974).

transcript of the hearing to FHWA together with a certification and "a report which indicates the consideration given to the economic, social, environmental, and other effects of the plan or highway location or design and various alternatives which were raised during the hearing or which were otherwise considered."[262] Typically, a draft impact statement is made available for public inspection at the hearing, and the transcript of the hearing, together with the state's response to public comments, becomes a part of the administrative record.

If the agency prepares an impact statement, it must also prepare a "concise public record of decision."[263] The record of decision must state what the decision was, discuss alternatives considered, and state whether all "practicable means" to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why not. The courts have also held that agencies must make an acceptable reviewable record in cases in which they decide that an impact statement is unnecessary and must provide a statement of reasons for their decision.[264]

b. To What Extent May Courts Supplement the Administrative Record for Purposes of Judicial Review?

"The agency decision-making process under NEPA that produces an administrative record is known as informal decision making."[265] "The informal record compiled by the agency can vary but usually contains the impact statement, if it is prepared, or an environmental assessment" if the agency does not prepare an impact statement. "The record may also contain supporting documents and studies."[266]

Plaintiffs in NEPA cases may seek to supplement the administrative record with additional testimony and may seek a full evidentiary hearing. In *Citizens to Preserve Overton Park v. Volpe*,[267] the Supreme Court considered the extent to which courts should allow plaintiffs to supplement an agency's administrative record.

The Court remanded for a new trial a decision by the Secretary of Transportation that a highway location in a public park did not violate Section 4(f) of the Department of Transportation Act. On remand, the district court was to engage in a "plenary review" of the Secretary's decision, "to be based on the full administrative record that was before the Secretary at the time he made his decision." In carrying out this plenary review, the Supreme Court stated that the district court could admit supplementary evidence to explain, but not to attack, the administrative record.

The lower federal courts have followed *Overton Park* and have allowed supplementation of the administrative record in order to explain it.[268] Courts also allow supplementation if the administrative record is incomplete,[269] and limited discovery is available to determine whether the record is complete.[270] *County of Suffolk v. Secretary of Interior* [271] is a leading case holding that supplementation is allowed when an agency does not raise an important environmental issue when it prepares an impact statement or decides not to prepare one. As the court stated, supplementation is permissible when there are allegations that the agency has swept "stubborn or serious problems under the rug." A number of cases have applied the *Suffolk* holding.[272]

7. The Lead Agency Problem

In many cases, more than one federal agency will be responsible for a proposed action. CEQ regulations cover the lead agency problem.[273] "If more than one agency 'proposes' or is 'involved' in an action, or there is a group of functionally or geographically related actions, the regulations provide for the designation of a lead agency,"[274] with the other agencies cooperating in the NEPA process. "If the agencies concerned cannot agree on the lead agency, they are to consider the following factors, listed by the regulation in order of descending importance; magnitude of involvement, project approval and disapproval authority, expertise on the action's environmental effects, duration of the agency's involvement, and the sequence of the agency's involvement. If the agencies concerned cannot agree on a lead agency, they may request CEQ to resolve the dispute."

The cases have given some but not extensive consideration to lead agency designations. One case held that the designation of the lead agency is committed to agency discretion and is not judicially reviewable."[275] Other cases that have reviewed the lead agency designation have generally required the designation of the agency with the major responsibility for the action as the lead agency.[276] In one highway case,

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[262] 23 U.S.C. § 128(a) (1994).

[263] 40 C.F.R. § 1505.2.

[264] Harlem Valley Transp. Ass'n v. Stafford, 500 F.2d 328 (2d Cir. 1974); Scientist's Institute for Public Information v. Atomic Energy Comm'n, 481 F.2d 1079 (D.C. Cir. 1973).

[265] NEPA LAW AND LITIGATION, *supra* note 7, at § 4.09 [i][a].

[266] *Id*., 40 C.F.R. pt 1505.

[267] 401 U.S. 402 (1971). *See also* Camp v. Pitts, 411 U.S. 138 (1972).

[268] Citizens Advocates for Responsible Expansion v. Dole, 770 F.3d 423 (5th Cir. 1985).

[269] National Audubon Soc'y v. Hoffman, 132 F.3d 7 (2d Cir. 1997) (good review of case law). *See also* Don't Ruin Our Park v. Stone, 749 F. Supp. 1388 (M.D. Pa. 1990) (record held complete), *aff'd mem.*, 931 F.2d 59 (3d Cir. 1991).

[270] Bar MK Ranches v. Yuetter, 994 F.2d 735 (10th Cir. 1993).

[271] 562 F.2d 1368 (2d Cir. 1977), *cert. denied*, 434 U.S. 1064 (1978).

[272] *E.g*., National Audubon Soc'y v. United States Forest Serv., 46 F.3d 1437 (9th Cir. 1994).

[273] 40 C.F.R. § 1501.5.

[274] NEPA LAW AND LITIGATION, *supra* note 7, at § 7.2.

[275] *Id*., *citing* Sierra Club v. United States Army Corps of Engr's, 701 F.2d 1011 (2nd Cir. 1983).

[276] Natural Resources Defense Council v. Callaway, 524 F.2d 79 (2nd Cir. 1975); Hanly v. Mitchell (I), 460 F.2d 640 (2d Cir. 1972), *cert. denied*, 409 U.S. 990 (1972).

a court held that an agency was not a necessary cooperating agency when it did not contribute federal funds.[277]

8. State "Little NEPAs"

a. Introduction

Fifteen states, the District of Columbia, and Puerto Rico have adopted environmental policy acts modeled on NEPA. Like NEPA, the state "little NEPAs" require government agencies to prepare impact statements on actions affecting the quality of the environment. Most of the state little NEPAs are either identical to or closely resemble NEPA, which has led the states to look to federal decisions interpreting NEPA as a guide to interpreting their legislation.[278] A few states, notably California and Washington, followed the NEPA model but added additional legislative guidance on issues such as the impact statement preparation process and standards for judicial review.

The state little NEPAs may apply only to state government agencies or may include local governments as well. When local governments are included, the legislation may require impact statements on planning and land use regulation as well as government projects. California, New York, and Washington are the principal states in which the little NEPA applies to planning and land use regulation. The state little NEPAs are summarized in the following table.

[277] North Buckhead Civic Ass'n v. Skinner, 903 F.2d 1533 (11th Cir. 1990).

[278] *E.g.*, Friends of Mammoth v. Board of Supervisors of Mono County, 502 P.2d 1049 (Cal. 1972).

SUMMARY TABLE OF STATE ENVIRONMENTAL POLICY ACTS

State	Comments
CAL. PUB. RES. CODE §§ 21000-21177	Requires environmental impact report similar to federal statement and including mitigation measures and growth-inducing effects. Applies to state agencies and local governments. Detailed provisions governing preparation of impact report and judicial review. State agency to prepare guidelines. Statutory terms defined.
CONN. GEN. STAT. §§ 22a-1 to 22a -1h	State agencies to prepare environmental impact evaluations similar to federal impact statement and including mitigation measures and social and economic effects. Actions affecting environment defined.
D.C. CODE ANN. §§ 6-981 to 6-990	Mayor, district agencies, and officials to prepare impact statements on projects or activities undertaken or permitted by District. Impact statement to include mitigation and cumulative impact discussion. Action to be disapproved unless mitigation measures proposed or reasonable alternative substitute to avoid danger.
GA. CODE ANN. §§ 12-16-1 to 12-16-8	Applies to projects proposed by state agencies for which it is probable to expect significant effect on the natural environment. Limited primarily to land-disturbing activities and sale of state land. Decision on project not to create cause of action.
HAW. REV. STAT. §§ 343-1 to 343-8	State agencies and local governments to prepare impact statements on use of public land or funds and land uses in designated areas. Statements must be "accepted" by appropriate official. Judicial review procedures specified.
IND. CODE ANN. §§ 13-12-4-I to 13-12-4-10	Similar to NEPA. Applies to state agencies.
MD. CODE ANN., NAT. RES. §§ 1-301 to 1-305	State agencies to prepare environmental effects reports covering environmental effects of proposed appropriations and legislation, including mitigation measures and alternatives.
MASS. GEN. LAWS ANN. Ch. 30, §§ 61, 62-62H	State agencies and local authorities to prepare environmental impact reports covering environmental effects of actions, mitigation measures, and alternatives. Most specify feasible measures to avoid damage to environment or mitigate or minimize damage to maximum extent practicable.[279] State agencies and local authorities created by the legislature to prepare environmental impact reports covering environmental effects of actions, mitigation measures, and alternatives. State agencies and authorities to determine impacts based on environmental impact report and incorporate mitigation measures into decision action.
MINN. STAT. ANN. §§ 116D.01 to 116D.06	State agencies and local governments to prepare EIS's covering environmental effects of actions; mitigation measures; and economic, employment, and sociological effects. Procedures for preparation of statements and judicial review specified. State environmental quality board may reverse or modify state actions inconsistent with policy or standards of statute.
MONT. CODE ANN. §§ 75-1-101 to 75-1-105; 75-1-201 to 75-1-207	Similar to NEPA. Applies to state agencies.

[279] For discussion of the law, see R.J. LYMAN, MEPA REVIEW IN MASSACHUSETTS ENVIRONMENTAL LAW ch. 23 (Supp. 1999); Lyman, *Permit Streamlining in Massachusetts*, 22 ZONING & PLAN. L. REP. 41 (1999).

SUMMARY TABLE OF STATE ENVIRONMENTAL POLICY ACTS

State	Comments
N.Y. ENVT. CONSERV. LAW §§ 8-0101 to 8-0117	State agencies and local governments to prepare impact statements similar to federal impact statement and including mitigation measures and growth-inducing and energy impacts. Procedures for preparing statement specified. State agency to adopt regulations on designated topics.
N.C. GEN. STAT. §§ 113A-1 to 113A-13	Similar to NEPA. Applies to state agencies. Local governments may also require special-purpose governments and private developers of major development projects to submit impact statement on major developments. Certain permits and public facility lines exempted.
P.R. LAWS ANN., tit. 12, §§ 1121-1127	Similar to NEPA. Applies to Commonwealth agencies and political subdivisions.
S.D. CODIFIED LAWS ANN. §§ 34A-9-1 to 34A-9-13	State agencies "may" prepare EIS's similar to federal impact statement and adding mitigation measures and growth-inducing "aspects." Statutory terms defined. Ministerial and environmental regulatory measures exempt.
VA. CODE §§ 3.1-18.8, 10.1-1200 to 10.1-1212	Similar to NEPA. Applies to state agencies for major state projects. Impact statements also to consider mitigation measures and impact on farmlands.
WASH. REV. CODE §§ 43.21C.010 to 43.21C.910	State agencies and local governments to prepare impact statements identical to federal statement but limited to "natural" and "built" environment. Proposal may be denied if it has significant impacts or mitigation measures insufficient. Judicial review procedures specified. State agency to adopt regulations on designated topics.
WIS. STAT. ANN. §§ 1.11	Similar to NEPA. Applies to state agencies. Statements also to consider beneficial aspects and economic advantages and disadvantages of proposals.

Source: Daniel R. Mandelker, *NEPA Law and Litigation*, 2d ed. (West Group, 1992), 12-4 to 12-7. Used by permission of the publisher.

b. Judicial Review and Remedies

The failure of a public agency to comply with a state environmental policy act has generally been held subject to judicial review. Unlike NEPA, several of the state acts expressly authorize judicial review of agency decisions claimed not to be in compliance with the act.[280] Some state courts hold that an agency's compliance with an environmental policy act is reviewable under the state administrative procedure act's judicial review provisions.[281] Judicial review may also be available through the remedies of injunction and declaratory judgment.[282]

When agency environmental policy act decisions are challenged under a state administrative procedure act, they are reviewable under the judicial review standards provided by that act.[283] Other state environmental policy acts expressly provide a standard of judicial review.[284] Where statutory review is not available or invoked, the standard of judicial review may be determined by the judicial remedy, such as certiorari, which is used to review the agency decision.[285]

Some state courts apply the "arbitrary and capricious" judicial review standard adopted by the Supreme Court for NEPA cases.[286] Other state courts may apply a less deferential "clearly erroneous"[287] or "reasonableness"[288] standard when they review an

[280] *E.g.*, CAL. PUB. RES. CODE §§ 21168, 21168.5; N.C. GEN. STAT. § 113A-13.

[281] McGlone v. Inaba, 636 P.2d 158 (Haw. 1981) (state agency); Wisconsin's Envtl. Decade v. Public Serv. Comm'n (II*)*, 255 N.W.2d 917 (Wis. 1977) (same).

[282] Villages Dev. Co. v. Secretary of Executive Office of Envtl. Affairs, 571 N.E.2d 361 (Mass. 1991). *See* NEPA LAW AND LITIGATION, *supra* note 7, at § 12.03 [i][a].

[283] Minn. Public Interest Research Group v. Minn. Envtl. Quality Council, 237 N.W.2d 375 (Minn. 1975).

[284] CAL. PUB. RES. CODE § 21168.

[285] Shriner's Hosp. for Crippled Children v. Boston Redev. Auth., 353 N.E.2d 778 (Mass. App. 1976) (review by certiorari is on errors of law).

[286] Jackson v. N.Y. State Urban Dev. Corp., 494 N.E.2d 429 (N.Y. 1986).

[287] Norway Hill Preservation & Protection Ass'n v. King County Council, 552 P.2d 674 (Wash. 1976).

[288] Wisconsin's Envtl. Decade, Inc. v. Public Serv. Comm'n, 256 N.W.2d 149 (Wis. 1977).

agency's decision that an impact statement is not necessary.

c. Actions and Projects Included

Several state environmental policy acts follow NEPA in using the term "major action" to designate the agency decisions that require an impact statement. Other acts use different terminology. The California act requires public agencies to prepare impact reports on "any project the agency proposes to carry out or approve."[289] Unlike NEPA, the California act does not require "projects" covered by the act to be "major" projects. Some of the state acts apply only to a narrowly defined set of projects.[290]

State-funded highway and transportation projects are clearly covered by the state acts, although they must be "major" projects in states that have this requirement. Some of the state statutes contain exemptions, and these may apply to transportation projects. Emergency repairs for public facilities are an example.[291] The state statutes may also authorize regulations designating categorical exclusions that, as under the federal law, do not require an impact statement because they do not have significant environmental effects. Courts have upheld categorical exclusions, such as exclusions for the replacement of public facilities,[292] the maintenance and repair of existing roads,[293] and the acquisition of property through eminent domain.[294]

Like NEPA, some state environmental policy acts require impact statements only on "proposals" for action.[295] The Wisconsin Supreme Court applied the Supreme Court's reasoning in *Kleppe* to decide when there is a proposal that requires an impact statement.[296] Some of the state cases differ with *Kleppe*. The California Supreme Court held the final approval of a project is not required before an agency must prepare an impact report because post hoc rationalization of a project after it is approved would violate the statute.[297]

d. The Significance Determination

Like NEPA, the state environmental policy acts require the preparation of an impact statement on actions that "significantly" affect the quality of the environment. Whether an action is significant is known as the threshold decision. Some state courts have adopted a lower threshold for the significance decision than the federal courts because they view this decision as critically important to the implementation of the statute.[298] The Connecticut Supreme Court, for example, requires an impact statement whenever a project "will arguably damage the environment" and subjects threshold decisions to a de novo standard of judicial review.[299] State statutes may also require an impact statement whenever an action "may" significantly affect the environment, a qualification not contained in NEPA.[300]

e. Scope of the Impact Statement

Program statements have not been extensively considered under the state environmental policy acts,[301] but the courts have considered the duty to include cumulative impacts in an environmental analysis. The California statute requires the consideration of cumulative impacts,[302] and the state courts have considered the adequacy of cumulative impact analysis in a number of cases.[303] The segmentation question has also arisen under the state acts. A California court of appeal applied the factors the federal courts use in NEPA cases to allow the segmentation of a highway project.[304] Other state courts have considered segmentation problems without applying the NEPA factors, including cases in which the segmentation of highway projects was at issue.[305]

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[289] CAL. PUB. RES. CODE § 21100.

[290] Mayor & City Council of Baltimore v. State, 378 A.2d 1326 (Md. 1977) (statute applies only to requests for appropriations and legislation and not to projects funded by the state).

[291] CAL. PUB. RES. CODE § 21080(b)(2).

[292] Bloom v. McGuire, 31 Cal. Rptr. 2d 914 (Cal. App. 1994) (medical waste treatment facility).

[293] Erven v. Riverside County Bd. of Supervisors, 126 Cal. Rptr. 285 (Cal. App. 1975).

[294] Petition of Port of Grays Harbor, 638 P.2d 633 (Wash. App. 1982).

[295] WASH. REV. CODE § 43.21C.030.

[296] Wisconsin's Envtl. Decade, Inc. v. State Dep't of Natural Resources, 288 N.W.2d 168 (Wis. 1979).

[297] Laurel Heights Improvement Ass'n of San Francisco v. Regents of Univ. of Cal., 764 P.2d 278 (Cal. 1988).

[298] HOMES, Inc. v. N.Y. State Urb. Dev. Corp., 418 N.Y.S.2d 827 (App. Div. 1979); Norway Hill Preservation & Protective Ass'n v. King County Council, 552 P.2d 674 (Wash. 1976); Wisconsin's Envtl. Decade v. Public Serv. Comm'n (II), 256 N.W.2d 149 (Wis. 1977).

[299] Manchester Envtl. Coalition v. Stockton, 441 A.2d 68 (Conn. 1981).

[300] CAL. PUB. RES. CODE § 21100. *See* No Oil, Inc. v. City of Los Angeles, 529 P.2d 66 (Cal. 1975).

[301] Klickitat County Citizens Against Imported Waste v. Klickitat County, 860 P.2d 390 (Wash. 1993) (adequacy of program impact statement). *See* CAL. PUB. RES. CODE ch. 4.5 (authorizing "master environmental impact report" for, e.g., projects to be carried out in stages).

[302] CAL. PUB. RES. CODE § 21083(b). *See* San Franciscans for Reasonable Growth v. City & County of San Francisco, 198 Cal. Rptr. 634 (Cal. App. 1984) (must consider cumulative impact of similar projects under environmental review though not yet approved).

[303] Del Mar Terrace Conservancy, Inc. v. City Council, 12 Cal. Rptr. 2d 785 (Cal. App. 1992) (highway).

[304] Del Mar Terrace Conservancy, Inc. v. City Council, 12 Cal. Rptr. 2d 785 (Cal. App. 1992). *Accord* Wisconsin's Envtl. Decade, Inc. v. Department of Natural Resources, 288 N.W.2d 168 (Wis. 1979) (sewer project).

[305] Village of Westbury v. Department of Transp., 549 N.E.2d 1166 (N.Y. 1989) (interchange construction must be considered together with nearby highway widening projects); Cheney v. City of Mountlake Terrace, 552 P.2d 184 (Wash. 1976) (allowing segmentation of highway project from private condominium project planned on adjacent land).

f. Alternatives

Like NEPA, the state environmental policy acts require impact statements to consider alternatives.[306] The state courts have required the consideration of alternatives such as a mass transit alternative to a highway,[307] and an alternative route for a transmission line.[308] Although the California Supreme Court has insisted on full compliance with the alternatives requirement,[309] it also held that environmental analysis under its little NEPA does not have to duplicate what is contained in a comprehensive plan. A comprehensive plan had addressed the critical land use issues in that case, and the court held that an environmental impact report should not ordinarily reconsider or overhaul fundamental land use policy.[310]

g. Adequacy and Effect of an Impact Statement

The state courts have applied the "rule of reason" adopted by the federal courts when reviewing the adequacy of impact statements.[311] In some states, however, the courts have reviewed the adequacy of impact statements more rigorously than they are reviewed in the federal courts. For example, New York's highest court held that its statute did not require an agency to reach a "particular result," but also held that it imposed "far more" action-forcing and substantive requirements than the federal law.[312] However, courts in that state may not second guess an agency's choice, which may be overturned only if arbitrary, capricious, or unsupported by substantial evidence.[313]

The California little NEPA provides that an agency may not approve a project if there are feasible alternatives or mitigation measures that will substantially lessen the significant environmental effects of the project. The statute also requires agencies to incorporate changes or alterations that will mitigate a project's significant environmental effects.[314] These provisions give the impact report in California some substantive effect. The Washington Supreme Court upheld an agency's authority to deny a project based on environmental effects identified in an impact statement.[315] The state courts have held that EIS's were adequate in most of the cases they have considered, including those involving impact statements for highway projects.[316]

h. Supplemental Impact Statements

State little NEPAs may require the preparation of supplemental EIS's. Like the CEQ regulations under NEPA, the California statute requires the preparation of a supplemental statement when there are substantial changes or new information.[317] California courts have considered whether supplemental impact statements were necessary in a number of cases, including cases involving highway projects.[318] The New York courts also apply the criteria in the federal regulations to determine when a supplemental impact statement is necessary,[319] as do the Washington courts.[320]

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[306] *E.g.*, WASH. REV. CODE § 43.21C.030(c)(iii).

[307] Manchester Envtl. Coalition v. Stockton, 441 A.2d 68 (Conn. 1981). *But see* Bowman v. City of Petaluma, 230 Cal. Rptr. 413 (Cal. App. 1 Dist. 1986) (need not discuss ring road as method of traffic reduction).

[308] People for Envtl. Enlightenment & Responsibility (PEER), Inc. v. Minn. Envtl. Quality Council, 266 N.W.2d 858 (Minn. 1978).

[309] Laurel Heights Imp. Ass'n v. Regents of Univ. of Cal., 764 P.2d 278 (Cal. 1988).

[310] Citizens of Goleta Valley v. Board of Supervisors of County of Santa Barbara, 801 P.2d 1161 (Cal. 1990).

[311] Price v. Obayashi Haw. Corp., 914 P.2d 1364 (Haw. 1996); Leschi Improv. Council v. Wash. State Highway Comm'n, 525 P.2d 774 (Wash. 1974).

[312] Jackson v. N.Y. State Urb. Dev. Corp., 494 N.E.2d 429 (N.Y. 1986).

[313] WEOK Broadcasting Corp. v. Planning Board, 592 N.E.2d 778 (N.Y. 1992).

[314] CAL. PUB. RES. CODE §§ 21002, 21081. The Massachusetts statute also contains this requirement.

[315] Polygon Corp. v. City of Seattle, 578 P.2d 1309 (Wash. 1978). *See* WASH. REV. CODE § 43.21C.060 (requiring agencies to find that a proposal would have significant environmental impact that cannot be mitigated before they can deny a proposal based on environmental effects contained in an impact statement). *But see* Save Our Rural Environment v. Snohomish County, 662 P.2d 816 (Wash. 1983) (court may not rely on impact statement to disapprove agency action).

[316] *See e.g.* City of Carmel-by-the-Sea v. United States Dep't of Transp., 123 F.3d 1142 (9th Cir. 1997) (highway; applying state law); Laurel Heights Imp. Ass'n v. Regents of Univ. of Cal., 764 P.2d 278 (Cal. 1988) (research center); Akpan v. Koch, 554 N.E.2d 53 (N.Y. 1990) (urban renewal project); Organization to Preserve Agricultural Lands v. Adams County, 913 P.2d 793 (Wash. 1996) (landfill project); Frye Inv. Co. v. City of Seattle, 544 P.2d 125 (Wash. App. 1976 (effect of street on property access)).

[317] CAL. PUB. RES. CODE § 21166.

[318] Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Ass'n, 727 P.2d 1029 (Cal. 1986) (increase in project size and noise effects were substantial); Bowman v. City of Petaluma, 230 Cal. Rptr. 413 (Cal. App. 1986) (change in project's road access resulting in 17 percent more daily trips on adjacent road was not a substantial change); Mira Monte Homeowners Ass'n v. San Buenaventura County, 212 Cal. Rptr. 127 (Cal. App. 1985) (discovery that street in project would pave over a wetland was new circumstance).

[319] Glen Head-Glenwood Landing Civic Council, Inc. v. Town of Oyster Bay, 453 N.Y.S.2d 732 (App. Div. 1982) (holding supplemental statement required on condominium project). *But see* Neville v. Koch, 593 N.E.2d 256 (N.Y. (1992) (rezoning; upholding agency decision not to prepare an impact statement)).

[320] Harris v. Hornbaker, 658 P.2d 1219 (Wash. 1983) (passage of time and change in interchange site sufficient to require agency to determine whether supplemental statement was necessary); Barrie v. Kitsap County Boundary Review Bd., 643 P.2d 433 (Wash. 1982) (new information did not require impact statement on shopping center).

B. SECTION 4(F) OF THE DEPARTMENT OF TRANSPORTATION ACT*

Section 4(f) of the Transportation Act of 1968[321] requires the transportation secretary to consider the environmental impact of highways, transit, and other federally-funded transportation projects on parks, historic sites, recreation, and wildlife areas:

> [T]he Secretary [of the Department of Transportation] may approve a transportation program or project requiring the use (other than any project for a park or parkway)…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 over the park, area, refuge, or site) only if—
>
> (1) there is no prudent and feasible alternative to using that land; and
>
> (2) such program includes all possible planning to minimize harm to such park, recreational area, wildlife and waterfowl refuge, or historic site resulting from the use.

The background of Section 4(f), its implementation by FHWA, and the court decisions that have augmented its scope and force are examined in this section. The Section 4(f) review is to be carried out as part of the environmental review under NEPA. Agency regulations provide for consultation with the officials that have jurisdiction over the protected resource and with interested federal agencies.[322] Courts have played an instrumental role in creating a formidable set of substantive requirements under Section 4(f), particularly by imposing a "constructive use" doctrine and the requirement of a "no action" alternative analysis.

1. What is "Use" Under Section 4(f)?

Section 4(f) is triggered by a proposed transportation project that will require the actual or constructive use of a publicly owned park, recreation area, wildlife or waterfowl refuge, or historic site. There are several judicial and administrative interpretations of these two threshold requirements.

a. Actual Use of Protected Land

It is beyond dispute that Section 4(f) applies to any transportation project that proposes a physical taking of any portion of protected land. For example, in *Louisiana Environmental Society, Inc. v. Coleman*,[323] the Fifth Circuit held that the statute did not call for any consideration of whether a proposed actual use would be substantial. Rather, the Court concluded, Congress intended Section 4(f) to apply whenever park land was to be used, and therefore "[a]ny park use, regardless of its degree, invokes § 4(f)."[324] FHWA regulations recognize that for Section 4(f) purposes "use" occurs "(i) When land is permanently incorporated into a transportation facility; (ii) When there is a temporary occupancy of land that is adverse in terms of the statute's preservationist purposes…or (iii) When there is a constructive use of land."[325]

b. Constructive Use of Protected Land

More contentious than the issue of what constitutes actual use of park land are the circumstances under which a transportation project amounts to "constructive use" of the protected lands sufficient to trigger Section 4(f). Constructive use occurs when there is no actual taking of park lands, but the proposed project will nonetheless cause adverse impacts on neighboring property protected by Section 4(f). The constructive use doctrine initially emerged out of judicial decisions that broadly interpreted the statute's "use" requirement by applying Section 4(f) to projects that bordered on protected lands.[326] Since that time, FHWA has incorporated the doctrine into its Section 4(f) regulations[327] and the courts have expanded it further.

The FHWA regulations recognize constructive use as occurring where "the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under § 4(f) are substantially impaired."[328] The regulations mean that there must be "substantial impairment"[329] by a nonphysical taking of park land to trigger the statute.

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* This section is based on, with an update, as applicable, information and analysis in MICHAEL C. BLUMM, HIGHWAYS AND THE ENVIRONMENT: RESOURCE PROTECTION AND THE FEDERAL HIGHWAY PROGRAM 1–7 (NCHRP Legal Research Digest No. 29, 1994).

[321] 49 U.S.C. § 303(c). An almost identical provision is contained in the Federal Highway Act. 23 U.S.C. § 138. Although the original § 4(f) was slightly revised when it was recodified, Congress did not intend any change in the law. *See* DOT Act of 1983, Pub. L. No. 97-449, § 1(a), 96 Stat. 2413 (1983) (stating that the recodification was made without substantive change).

[322] 23 C.F.R. § 771.135. *See generally* Corridor H Alternatives, Inc. v. Slater, 166 F.3d 368 (D.C. Cir. 1999).

[323] 537 F.2d 79 (5th Cir. 1976).

[324] *Id.* at 84.

[325] 23 C.F.R. § 771.135(p).

[326] *See, e.g.,* Brooks v. Volpe, 460 F.2d 1193 (9th Cir. 1972) (encirclement of public campground by a highway is a "use"); Conservation Soc'y v. Secretary of Transp., 362 F. Supp. 627, 639 (D. Vt. 1973), *aff'd*, 508 F.2d 927 (2d Cir. 1974) (highway bordered on protected area).

[327] 23 C.F.R. § 771.135(p).

[328] *Id.* at § 771.135(p)(2).

[329] The regulations provide:

> Constructive use occurs when the transportation project does not incorporate land from a section 4(f) resource, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes

FHWA has identified certain situations under which the constructive use doctrine of Section 4(f) categorically does or does not occur.[330] The regulations define constructive use as including the "substantial impairment" of resources protected by Section 4(f) as a result of noise levels, vibration impact, restrictions on access, or "ecological intrusion."[331] The regulations also identify numerous situations where presumptively there is no constructive use. These include situations where (1) noise impacts would not exceed certain specified levels, (2) a project is approved or a right-of-way acquired before the affected property is designated to be protected by Section 4(f), or (3) a proposed project is concurrently planned with a park or recreation area.[332]

The courts have also provided guidelines on when there is a constructive use that triggers the application of Section 4(f). As the District of Columbia Court of Appeal noted: "[A] project which respects a park's territorial integrity may still, by means of noise, air pollution and general unsightliness, dissipate its aesthetic value, crush its wildlife, defoliate its vegetation, and "take" it in every practical sense."[333]

The Ninth Circuit held that "constructive use of park land occurs when a road significantly and adversely affects park land even though the road does not physically use the park."[334]

A number of courts have applied the constructive use doctrine to a variety of situations where there would be no actual physical intrusion of protected land by the proposed highway project. For example, in *Monroe County Conservation Council v. Adams*,[335] the Second Circuit ruled that a proposed six-lane highway that would adjoin a public park constituted constructive use because the park would become "subject to the unpleasantness which accompanies the heavy flow of surface traffic," and because access to the park would become more difficult and hazardous.[336]

In a number of other cases, federal courts have found constructive uses of park lands and historic sites based on impairment of access,[337] general unsightliness,[338] and other proximity impacts significant enough to "substantially impair" the protected resources.[339] Cases are divided where constructive use is claimed based on an increase in noise levels. Some cases have found constructive use based on increased noise,[340] but in a number of other cases the courts held that noise levels were not serious enough to cause an impairment of a protected resource.[341]

The Ninth Circuit has held that the constructive use doctrine does not apply where the construction of a new highway and a new park are jointly planned on a single parcel of land. In *Sierra Club v. Department of Transportation*,[342] the court held that a planned highway did not "use" a park where the highway and the park were to be developed concurrently. Looking at the legislative history of Section 4(f), the court determined that because Congress contemplated the possibility of joint development of parks and roads, it intended Section 4(f) to protect only already established parks and recreation areas.[343]

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of the resource are substantially diminished. (771.135 (p)(2)).

[330] *Id.* at §§ 771.135(p)(4) (constructive use occurs), (p)(5), constructive use does not occur.

[331] *Id.* at §§ 771.135(p)(4)(i) to (v).

[332] *Id.* at §§ 771.135(p)(5)(i) to (ix).

[333] District of Columbia Fed'n of Civic Ass'ns v. Volpe, 459 F.2d 1231, 1239 (D.C. Cir.), *cert. denied*, 405 U.S. 1030 (1972).

[334] Sierra Club v. Department of Transp., 948 F.2d 568, 573 (9th Cir. 1991).

[335] 566 F.2d 419 (2d Cir. 1977).

[336] *Id.* at 424.

[337] Monroe County Conservation Council v. Adams, 566 F.2d 419, 424 (2d Cir. 1977); Brooks v. Volpe, 460 F.2d 1193, 1194 (9th Cir. 1972). *But see* Falls Road Impact Comm., Inc. v. Dole, 581 F. Supp. 678 (E.D. Wis. 1984) (temporary limitation on access not constructive use).

[338] Coalition Against a Raised Expressway v. Dole, 835 F.2d 803, 812 (11th Cir. 1988) (view impairment and noise); Citizens Advocates for Responsible Expansion, Inc. v. Dole, 770 F.2d 423, 439 (5th Cir. 1985) (tremendous aesthetic and visual intrusion); Louisiana Envtl. Soc'y, Inc. v. Coleman, 537 F.2d 79, 85 (5th Cir. 1976) (view of lake blocked from nearby homes).

[339] Stop H-3 Ass'n v. Coleman, 533 F.2d 434 (9th Cir.) (constructive use of historic site), *cert. denied*, 429 U.S. 999 (1976), Mullin v. Skinner, 756 F. Supp. 904, 924–25 (E.D.N.C. 1990) (high-rise bridge project would constructively use beach by causing high-rise development); Conservation Soc'y of Southern Vt., Inc. v. Secretary of Transp., 362 F. Supp. 627, 639 (D. Vt. 1973) (protested highway would border protected woodland), *aff'd*, 508 F.2d 927 (2d Cir. 1974). *But see* Laguna Greenbelt v. United States Dep't of Transp., 42 F.3d 517 (9th Cir. 1994) (minor improvements did not affect park); Citizens for Scenic Severn River Bridge, Inc. v. Skinner, 802 F. Supp. 1325 (bridge did not affect scenic overlook), *aff'd without opinion*, 972 F.2d 338 (4th Cir. 1992).

[340] *See, e.g.,* Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 202-03 (D.C. Cir. 1991); Coalition Against a Raised Expressway, Inc. v. Dole, 835 F.2d 803, 811–12 (llth Cir. 1988); Monroe County Conservation Council v. Adams, 566 F.2d 419, 424 (2d Cir. 1977).

[341] City of Bridgeton v. Slater, 212 F.3d 448 (8th Cir. 2000) (noise from airport expansion not a constructive use), *cert. denied*, 121 S. Ct. 855 (2001); Communities, Inc. v. Busey, 956 F.2d 619, 624 (6th Cir.) (noise from passing aircraft did not affect historic neighborhoods), *cert. denied*, 506 U.S. 953 (1992); Allison v. Department of Transp., 908 F.2d 1024 (D.C. Cir. 1990) (noise from airport several miles away; reliance on inapplicable FAA regulations not fatal); Sierra Club v. United States Dep't of Transp., 753 F.2d 120, 130 (D.C. Cir. 1985) (increased airplane noise from airport expansion); Arkansas Org. for Community Reform Now v. Brinegar, 398 F. Supp. 685, 693 (E.D. Ark. 1975) (park uses not affected by increased noise from adjacent highway), *aff'd*, 531 F.2d 864 (8th Cir. 1976).

[342] 948 F.2d 568 (9th Cir. 1991).

[343] *Id.* at 574.

2. Resources Protected by Section 4(f)[344]

a. Public Parks, Recreation Areas, and Refuges

The language of Section 4(f) restricts the use for a transportation project of a publicly owned 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 official's jurisdiction over the park, area, refuge, or site).[345]

The statute potentially applies to all historic sites, but only to publicly owned parks, recreation areas, and refuges. Section 4(f) does not apply where parks, recreation areas, and refuges are owned by private individuals.[346] This is true even where the land is held by a public interest group for the benefit of the public.[347] However, if a governmental body has any proprietary interest in the land at issue (such as fee ownership, a drainage easement, or a wetland easement), that land may be considered publicly owned.[348]

Where land is publicly owned, it can qualify for protection under Section 4(f) only if it is actually designated or administered[349] for "significant" park, recreation, or wildlife purposes.[350] When making this threshold determination, courts have held that the Secretary "may properly rely on, and indeed should consider…local officials' views."[351] For example, in *Concerned Citizens on I-190 v. Secretary of Transp.*, the First Circuit held that the Secretary was not required to make an independent determination on whether the state lands involved in a highway project constituted "significant…recreation lands." He could, instead, rely on the conclusion of a local commission that no such land would be used by the highway.[352] The FHWA regulations reflect this holding. They state that consideration under Section 4(f) is not required where the officials with jurisdiction over the area determine that "the entire site is not significant."[353] If no such determination is made, the regulations presume the Section 4(f) land is significant. The regulations also require that FHWA review the significance determination to ensure its reasonableness.[354]

i. Multiple-Use Land Holdings.—Special problems may arise where land needed for a highway project is managed for several different purposes, including a use protected by Section 4(f). Where multiple-use lands are involved, FHWA has determined that Section 4(f) will apply only to those portions that "function for, or are designated in the management plans of the administering agency as being for significant park, recreation, or wildlife and waterfowl purposes."[355] Where multiple-use public lands do not have current management plans, Section 4(f) applies only to those areas that function primarily for purposes protected by Section 4(f).[356] The federal, state, or local officials with jurisdiction over the land in question are responsible for determining which areas function as or are designated for purposes protected by Section 4(f), subject to FHWA oversight to ensure "reasonableness."[357]

ii. Bodies of Water.—Because most of the land under navigable waters of the United States is owned by the states, any such waters designated or used for significant park, recreational, or refuge purposes will qualify for protection under Section 4(f) because the underlying land is publicly owned.[358] Section 4(f) applies only to those portions of lakes that function primarily for park, recreation, or refuge purposes, or are so designated by the appropriate officials.[359] Rivers are generally not subject to Section 4(f) requirements, unless they are contained within the boundaries of a park or refuge to which Section 4(f) otherwise applies. However, federally designated wild and scenic rivers are protected by Section 4(f), and publicly owned lands

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[344] For cases reviewing determinations concerning the applicability of § 4(f) to resource areas, see Corridor H Alternatives, Inc. v. Slater, 166 F.3d 368 (D.C. Cir. 1999) (statute violated when agency made final decision before identifying historic resource); Hatmaker v. Georgia Dep't of Transp., 973 F. Supp. 1058 (M.D. Ga. 1997) (upholding decision not to consider tree as historic resource protected by § 4(f)).

[345] 9 U.S.C. § 303(c).

[346] National Wildlife Fed'n v. Coleman, 529 F.2d 359, 370 (5th Cir. 1976). *See also* UNITED STATES DEP'T OF TRANSP., FEDERAL HIGHWAY ADMIN., MEMORANDUM: SECTION 4(f) POLICY PAPER 3 (1987 & rev. 1989) (policy is to strongly encourage preservation of privately-owned land although § 4(f) does not apply), hereinafter cited as "Policy Paper."

[347] National Wildlife Fed'n v. Coleman, 529 F.2d 359, 370 (5th Cir. 1976) (land acquired by Nature Conservancy for future use as wildlife refuge).

[348] Policy Paper, *supra* note 346, at 3.

[349] *See* Mullin v. Skinner, 756 F. Supp. 904 (E.D.N.C. 1990) (ocean-front beaches declared by state supreme court to be held in public trust were not "designated or administered" for purposes of § 4(f)).

[350] *See* Concerned Citizens on I-190 v. Secretary of Transp., 641 F.2d 1, 7 (1st Cir. 1981) (whether recreational lands are "significant" is threshold question under § 4(f)).

[351] *See* Concerned Citizens on I-190 v. Secretary of Transp., 641 F.2d 1, 7 (1st Cir. 1981). *See also* Pa. Envtl. Council, Inc. v. Bartlett, 454 F.2d 613, 623 (3d Cir. 1971).

[352] 641 F.2d at 7.

[353] 23 C.F.R. § 771.135(c).

[354] *Id.*

[355] *Id.* at § 771.135(d). *See also* Policy Paper, *supra* note 346, at 214.

[356] Policy Paper, *supra* note 346, at 14.

[357] 23 C.F.R. § 771.135(d). For a case upholding an FHWA determination concerning the applicability of § 4(f) to multiple-use land, see Geer v. Federal Highway Admin., 975 F. Supp. 47 (D. Mass. 1997).

[358] Edward V.A. Kussy, *Wetland and Floodplain Protection and the Federal-Aid Highway Program*, 13 ENVTL. L. 161, 245–46 (1982), points out that the federal government's navigational servitude over navigable waters may also give federal officials jurisdiction to make determinations of significance under § 4(f).

[359] Policy Paper, *supra* note 346, at 16.

in the immediate proximity of such rivers may also be protected, depending on how those lands are administered under the management plans required by the Wild and Scenic Rivers Act.[360] Where the management plan specifically designates the adjacent lands for recreational or other Section 4(f) purposes, or where the primary function of the area is for significant Section 4(f) activities, Section 4(f) will apply.[361]

b. Historic Sites

Unlike park lands, historic sites need not be publicly owned to qualify for protection under Section 4(f). However, the site must be "of national, state, or local significance (as determined by the Federal, State or local officials having jurisdiction over the…site)."[362] Where historic sites will be affected as the result of a proposed highway project, the National Historic Preservation Act (NHPA)[363] works along with Section 4(f) to require avoidance or minimization of harmful impacts to historic sites. For example, under FHWA regulations, the "significance" of a historic site for § 4(f) purposes generally is determined by whether the site is on or eligible for the National Register of Historic Places.[364] Because the National Register comprises many different types of historic resources,[365] courts have also applied Section 4(f) to a wide variety of historic sites.[366] If a particular site is not on or eligible for the National Register, Section 4(f) may still apply if FHWA determines that the application of the statute is "otherwise appropriate."[367]

The regulations require that FHWA must consult with the state's historic preservation officer, in cooperation with the state highway agency, to determine whether a site affected by a project is on or eligible for the National Register.[368] If it is not, then Section 4(f) most likely does not apply.[369] However, the site may still be protected under the statute if it is of local significance, as determined by local officials having jurisdiction over the site.[370] FHWA has indicated that Section 4(f) applies when a local official (e.g., the mayor or the president of the local historical society) provides information indicating that a site not eligible for the National Register is nonetheless of local significance.[371]

Once a determination has been made that a site is eligible for inclusion on the National Register, Section 4(f) applies even if state or local officials with jurisdiction over the area assert that the site is not "significant" to them. For example, in *Stop H-3 Association v. Coleman*,[372] the Ninth Circuit held that a finding by a state review board that the Moanalua Valley in Oahu was only of "marginal" local significance was inconsequential for Section 4(f) purposes, because the Secretary of the Interior had determined earlier that the valley "may be eligible" for inclusion in the National Register.[373] The court also ruled the Secretary acted within his authority under the NHPA Act when he made the eligibility determination on his own initiative, without the concurrence of state or local officials.[374]

FHWA regulations recognize that Section 4(f) applies to all archeological sites on or eligible for inclusion on the National Register, including those discovered during construction. The regulations provide for an expedited Section 4(f) process in such circumstances.[375] The regulations also carve out an exception from the Section 4(f) requirements where FHWA determines that the archeological resource involved "has minimal value

[360] *Id.* at 15.

[361] *Id.*

[362] 49 U.S.C. § 303(c). *See* Corridor H. Alternatives, Inc. v. Slater, 166 F.3d 368 (D.C. Cir. 1999) (agency must make resource determination under § 4(f) before issuing Record of Decision under NEPA); Lakes Region Legal Defense Fund v. Slater, 986 F. Supp. 1169 (N.D. Iowa 1997) (historic structure not protected if not on national register).

[363] 16 U.S.C. § 470 *et seq*. The NHPA authorizes the Secretary of the Interior to maintain a National Register of Historic Places and authorizes states to designate a state historic preservation officer to inventory the state's historic sites and to nominate eligible properties for the National Register. *See* ADVISORY COUNCIL ON HISTORIC PRESERVATION, FEDERAL HISTORIC PRESERVATION LAW (1985). *See* Section 3.E.1 *infra*.

[364] 23 C.F.R. § 771.135(e).

[365] The NHPA provides that the National Register should contain "districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture." 16 U.S.C. § 470a(a)(1)(A).

[366] *See* Communities, Inc. v. Busey, 956 F.2d 619, 624 (6th Cir.) (applying § 4(f) to Old Louisville, an area of architectural and historic significance), *cert. denied*, 506 U.S. 953 (1992); Coalition Against a Raised Expressway v. Dole, 835 F.2d 80-3,811 (11th Cir. 1988) (city hall and railroad terminal); Arizona Past & Future Foundation, Inc. v. Lewis, 722 F.2d 1423, 1425 (9th Cir. 1983) (archeological sites); Benton Franklin Riverfront Trailway & Bridge Comm. v. Lewis, 701 F.2d 784, 788 (9th Cir. 1983) (historic bridge); Nashvillians Against I-440 v. Lewis, 524 F. Supp. 962, 980 (M.D. Tenn. 1981 (historic roadway); Stop H-3 Ass'n v. Coleman, 533 F.2d 434, 445–46 (9th Cir. 1976) (Hawaiian petroglyph rock).

[367] 23 C.F.R. § 771.135(e).

[368] *Id. See also* 36 C.F.R. § 800.4 (regulations under NHPA § 106 requiring consultation with state historic preservation officer where federal undertaking will "potentially affect" a historic site).

[369] 23 C.F.R. § 771.135(e).

[370] 49 U.S.C. § 303(c).

[371] Policy Paper, *supra* note 346, at 11.

[372] 533 F.2d 434 (9th Cir.), *cert. denied*, 429 U.S. 999 (1976).

[373] *Id.* at 440–45.

[374] *Id.* at 444. For a detailed discussion of the *Stop H-3* case that is highly critical of the powers afforded by "small opposition groups" by § 4(f), see Note, *Federal Highways and Environmental Litigation: Toward a Theory of Public Choice and Administrative Reaction*, 27 HARV. J. ON LEGIS. 229, 257–62 (1990).

[375] 23 C.F.R. § 771.135(g).

for preservation in place" and can be relocated without diminishing the significance of the resource.[376]

3. Substantive Requirements of Section 4(f)

Once it is established that a proposed project will actually or constructively use a resource protected under Section 4(f), the Secretary of Transportation may approve the project only if (1) there is no "feasible and prudent alternative" to the use of such land and (2) the project includes "all possible planning to minimize harm" to the protected property.[377] The Supreme Court gave these requirements a critical reading in *Citizens to Preserve Overton Park v. Volpe*.[378]

a. The Overton Park Case

In the *Overton Park* case, a major east-west expressway in Memphis, Tennessee, was planned across Overton Park, a major public park in the city. Right-of-way for the highway inside the park had been acquired, but the Secretary had not made the required Section 4(f) findings. Plaintiffs argued that it would be "feasible and prudent" to route the highway around the park. This requirement is in Section 4(f)(1). Even if alternative routes were not "feasible and prudent," they argued, the project did not include all "possible methods" for minimizing harm to the park. The highway could be built under the park or depressed below ground level. This requirement is in Section 4(f)(2).

The Secretary argued that the "feasible and prudent" requirement for deciding whether there was an alternative authorized him to engage in a wide-ranging balancing of competing interests that was exempt from judicial review as "agency action committed to agency discretion" under the Administrative Procedure Act.[379] In this balancing process, he argued, he could weigh any harm to the park against the cost of other routes, safety factors, and other considerations. He could then determine the importance of these factors and decide whether alternative routes were feasible and prudent.

The Court rejected this argument. Finding that "no such wide-ranging endeavor was intended," it held that Congress did not intend to prohibit judicial review, and that Section 4(f) contained "law to apply":

> But…[§4(f)] indicates that the protection of parkland was to be given paramount importance. The few green havens that are public parks were not to be lost unless there were truly unusual factors present in a particular case or the cost or community disruption resulting from alternative routes reached extraordinary magnitudes.[380]

As interpreted by the Court, Section 4(f) creates a presumption that the public parks, natural resource areas, and historic sites protected by this section may not be used for highways unless truly compelling reasons indicate that no alternative route is possible.[381]

b. Feasible and Prudent Alternatives

Since *Overton Park*, the Supreme Court has not decided another Section 4(f) case, leaving the courts of appeal to further define the broad directives set out by the Court for applying the feasible and prudent alternatives requirement in Section 4(f)(1). The Court in *Overton Park* stated, however, that an alternative is "feasible" unless "as a matter of sound engineering" it should not be built.[382]

Some courts adopt a strict reading of *Overton Park*. They overrule a rejection of alternate routes even where costs and community disruptions would be somewhat severe.[383] These cases apply the guiding principle in

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[376] *Id.* at § (g)(2). *See* Town of Belmont v. Dole, 766 F.2d 28, 31-33 (1st Cir. 1985) (upholding FHWA'S "archeological regulation" as consistent with the preservationist purposes of § 4(f)).

[377] 49 U.S.C. § 303(c).

[378] 401 U.S. 402 (1971), *on remand*, Citizens to Preserve Overton Park v. Brinegar, 494 F.2d 1212 (6th Cir. 1974) (Secretary not required to select feasible and prudent route if he rejected proposed route).

[379] 5 U.S.C. § 701.

[380] 401 U.S. at 412. For discussion of the judicial review standard adopted in *Overton Park*, see Ronald M. Levin, *Understanding Unreviewability in Administrative Law*, 74 MINN. L. REV. 689 (1990).

[381] It is not clear whether the "arbitrary and capricious" standard of judicial review applies to determinations by the Secretary that § 4(f) does not apply. Some circuits had applied a less deferential reasonableness test to the review of these decisions. *See* Coalition Against a Raised Expressway v. Dole, 835 F.2d 803, 810–11 (11th Cir. 1988); Citizen Advocates for Responsible Expansion v. Dole, 770 F.2d 423, 441 (5th Cir. 1985); Adler v. Lewis, 675 F.2d 1085, 1092–93 (9th Cir. 1982). This test was based by analogy on the test used to determine whether an impact statement must be prepared under NEPA. The Supreme Court has now repudiated this test, Marsh v. Oregon Natural Resources Council, 490 US. 360 (1989), and applies the arbitrary and capricious standard to agency decisions on whether to prepare an impact statement.

The choice of test may not be significant, as the Court indicated in *Marsh* that the two tests are very similar. However, *Marsh* left open the possibility that the reasonableness test may still apply to the review of questions of law. Courts could conclude that the decision on whether § 4(f) applies is a question of law if it turns on an interpretation of the statute. *See also* § 2.A.3.a, *supra*.

[382] 401 U.S. at 411.

[383] *See, e.g.,* Stop H-3 Ass'n v. Dole, 740 F.2d 1442, 1451–52 (9th Cir. 1984) (alternate route requiring dislocation of 1 church, 4 businesses, and 31 residences, as well as an additional expense of $42 million, did not amount to cost or community disruption of extraordinary magnitude), *cert. denied*, 471 U.S. 1108 (1985); *Louisiana Envtl. Soc'y Inc. v. Coleman*, 537 F.2d 79, 97 (5th Cir. 1976) (no cost or community disruption of extraordinary magnitude where alternative would require displacement of 377 families, 1508 persons, 32 businesses, and 2 churches); Coalition for Responsible Regional Dev. v. Brinegar, 518 F.2d 522, 526 (4th Cir. 1975) (alternative site for bridge not rendered imprudent solely because of state's potential inability to finance the alternative site).

Overton Park that "cost is a subsidiary factor in all but the most exceptional cases when alternatives to the taking of protected land are considered."[384] Indeed, the Ninth Circuit requires an agency to identify "unique problems or truly unusual factors" before it can reject an alternative.[385]

However, most of the lower federal court cases upheld agency decisions to reject alternatives for highways and other transportation projects because they were not feasible and prudent, as required by the statute.[386] One important factor the courts consider is that an alternative is imprudent if it does not meet the purpose or the transportation needs of the project.[387] For example, an alternative is not prudent if it does not accommodate existing traffic volumes,[388] does not solve existing traffic problems,[389] or does not fulfill the purpose of providing a new highway through a community.[390] One court rejected an alternative to airport expansion that would have located an airport in another city.[391] An alternative route that has an impact on parts or other protected sites is not an alternative that must be considered.[392]

A court may elevate the importance of cost considerations in the Section4(f) analysis. For example, *Eagle Foundation v. Dole* [393] considered a proposed four-lane expressway that would run through both a wildlife refuge and a historical site. The agency rejected as imprudent each of 10 alternative routes that would have avoided the refuge because of the "cumulative drawbacks presented by those routes," finding that all of the alternatives would be longer and more expensive to build.[394]

Judge Easterbrook for the Seventh Circuit upheld this determination, first noting that the Secretary's decision required deferential review. He then explained that in *Overton Park* the Supreme Court was merely being "emphatic" when it used the word "unique" to define the type of problems that must be present for an alternative to be imprudent.[395] What the Supreme Court really meant, according to Judge Easterbrook, was that the reasons for using the protected land have to be good and pressing ones, and well thought out.[396]

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[384] Coalition for Responsible Regional Dev., 518 F.2d at 526.

[385] Stop H-3 Ass'n v. Dole, 740 F.2d 1442 (9th Cir. 1984). *But see* Alaska Center for the Envt. v. Armbrister, 131 F.3d 1285 (9th Cir. 1997) (rule does not apply if alternative does not meet purpose of project), *cert. denied*, 118 S. Ct. 1802 (1998).

[386] City of Bridgeton v. Slater, 212 F.3d. 448 (8th Cir. 2000) (upholding rejection of alternatives to airport expansion project), *cert. denied*, 121 S. Ct. 855 (2001); Committee to Preserve Boomer Lake Park v. Department of Transp., 4 F.3d 1543 (10th Cir. 1993); Citizens Against Burlington, Inc., v. Busey, 938 F.2d 190 (D.C. Cir.), *cert. denied*, 502 U.S. 994 (1991) (upholding rejection of alternative); Hickory Neighborhood Defense League v. Skinner, 910 F.2d 159 (4th Cir. 1990) (upholding rejection of alternative to highway widening in historic district); Lake Hefner Open Space Alliance v. Dole, 871 F.2d 943 (10th Cir. 1989) (upholding rejection of alternative); Coalition on Sensible Transp., Inc. v. Dole, 826 F.2d 60 (D.C. Cir. 1987) (same); Ringsred v. Dole, 828 F.2d 1300 (8th Cir. 1987) (same), Eagle Foundation, Inc. v. Dole, 813 F. d 798 (7th Cir. 1987) (same); Druid Hills Civic Ass'n Inc. v. Federal Highway Admin., 772 F.2d 700 (11th Cir. 1985) (same), *on remand*, 650 F. Supp. 1368 (N.D. Ga. 1986) (rejection of alternative again upheld); Lakes Region Legal Defense Fund v. Slater, 986 F. Supp. 1169 (N.D. Iowa 1997) (upholding rejection; some alternatives threatened increased environmental impact); Conservation Law Found. v. Federal Highway Admin., 827 F. Supp. 871 (D. R.I. 1993) (upholding rejection of alternative), *aff'd on basis of district court opinion*, 24 F.3d 1465 (1st Cir. 1994); Citizens for Scenic Severn River Bridge, Inc. v. Skinner, 802 F. Supp. 1325 (D. Md. 1991) (same), *aff'd mem.*, 972 F.2d 339 (4th Cir. 1992); Town of Fenton v. Dole, 636 F. Supp. 557 (N.D.N.Y. 1986) (same; may rely on recommendation by regional highway planning organization), *aff'd per curiam*, 792 F.2d 44 (2d Cir. 1986); County of Bergen v. Dole, 620 F. Supp. 1009 (D.N.J. 1985) (same), *aff'd mem.* 800 F.2d 1130 (3rd Cir. 1986); Ashwood Manor Civic Ass'n v. Dole, 619 F. Supp. 52 (E.D. Pa. 1985) (same), *aff'd mem.*, 779 F.2d 41 (3rd Cir. 1985), *cert. denied*, 475 U.S. 1082 (1986); Association Concerned About Tomorrow, Inc. (ACT) v. Dole, 610 F. Supp. 1101 (N.D. Tex. 1985) (contra); Wade v. Lewis, 561 Supp. 913 (N.D. Ill. 1983) (same); Md. Wildlife Fed'n v. Lewis, 560 F. Supp. 466 (D. Md. 1983) (rejection of alternative upheld), *aff'd. sub nom*. Md. Wildlife Fed'n v. Dole, 747 F.2d 229 (4th Cir. 1984); Marple Township v. Lewis, 21 Envtl. Rep. Cas. 1010 (E.D. Pa. 1982) (contra).

See also Annot., *Construction and Application of § 4(f) of Department of Transportation Act of 1966 as Amended and § 18 (a) of Federal -Aid Highway Act of 1968 Requiring Secretary of Transportation to Determine that All Possible Planning for Highways Has Been Done to Minimize Harm to Public Park and Recreation Lands,* 19 A.L.R. FED. 904 (1974).

[387] Associations Working for Aurora's Residential Envt. v. Colo. Dep't of Transp., 153 F.3d 1122 (10th Cir. 1998) (mass transit did not meet need of highway project properly defined as a project to relieve traffic congestion); *see, e.g.,* Alaska Center for the Envt. v. Armbrister, 131 F.3d 1285 (9th Cir. 1997), *cert. denied*, 118 S. Ct. 1802 (1998); Hickory Neighborhood Defense League v. Skinner, 910 F.2d 159 (4th Cir. 1990); Druid Hills Civic Ass'n, Inc. v. Federal Highway Admin., 772 F.2d 700 (11th Cir. 1985); Lakes Region Legal Defense Fund v. Slater, 986 F. Supp. 1169 (N.D. Iowa 1997).

[388] Lake Hefner Open Space Alliance v. Dole, 871 F.2d 943 (10th Cir. 1989).

[389] Associations Working for Aurora's Residential Envt. v. Colo. Dep't of Transp., 153 F.3d 1122 (10th Cir. 1998); Alaska Center for the Envt. v. Armbrister, 131 F.3d 1285 (9th Cir. 1997); Hickory Neighborhood Defense League v. Skinner, 910 F.2d 159, 164 (4th Cir. 1990).

[390] Committee to Preserve Boomer Lake Park v. United States Dep't of Transp., 4 F.3d 1543 (10th Cir. 1993).

[391] Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190 (D.C. Cir.), *cert. denied*, 502 U.S. 994 (1991).

[392] Louisiana Envtl. Society, Inc. v. Coleman, 537 F.2d 79 (5th Cir. 1976).

[393] 813 F.2d 798 (7th Cir. 1987).

[394] *Id.* at 803. *See also* Committee to Preserve Boomer Park v. Department of Transp., 4 F.3d 1543, 1550 (10th Cir. 1993); Hickory Neighborhood Defense, 910 F.2d at 163.

[395] Eagle Foundation, 813 F.2d at 804.

[396] *Id.* at 805.

Despite the *Overton Park* dictum that costs are a factor in the Section 4(f) alternatives analysis only when they reach "extraordinary magnitudes," the *Eagle Foundation* court held that "[a] prudent judgment by an agency is one that takes into account everything important that matters."[397] Because every other alternative would cost at least $8 million more than the park land route, the court concluded that the Secretary "could ask intelligently whether it is worth $8 million to build around the Hollow, in light of the other benefits and drawbacks of each course of action."[398] Although an additional $8 million would represent only a small fraction of the total cost of the highway, the court upheld the Secretary's determination that the additional costs of the alternatives, when combined with other drawbacks—such as safety, aesthetic, and wildlife concerns—were sufficient to make them imprudent under Section 4(f).[399]

The "cumulative drawbacks" approach upheld in *Eagle Foundation* and in other cases[400] is part of FHWA's official Section 4(f) policy. An FHWA policy paper states: "When making a finding that an alternative is not feasible and prudent, it is not necessary to show that any single factor presents unique problems. Adverse factors such as environmental impacts, safety and geometric problems, decreased traffic service, increased costs, and any other factors may be considered collectively."[401]

Similarly, in *Hickory Neighborhood Defense League v. Skinner*,[402] the Fourth Circuit adopted the Seventh Circuit's interpretation of *Overton Park*, explaining that the Supreme Court in that case used the word "unique" only for emphasis and "not as a substitute for the statutory word 'prudent.'"[403] The Skinner case held that courts should uphold the Secretary's decision to use Section 4(f) land as long as there is a "strong" or "powerful" reason to do so. The agency need not expressly find "unique problems," as long as the record supports the conclusion that there were "compelling reasons" for rejecting the proposed alternatives.[404]

The courts also differ on what range of alternatives the Secretary must consider when assessing whether or not "feasible and prudent" alternatives exist. The Ninth Circuit takes an expansive view of the alternatives analysis, usually requiring consideration of a no-build alternative, as well as other alternatives that might be very different than the proposed project.[405] For example, in *Stop H-3 Association v. Dole*,[406] the Ninth Circuit overruled the Secretary's rejection of a no-build alternative. It held that the agency did not automatically prove that the option of not building the highway was imprudent under *Overton Park* simply because it demonstrated an established transportation need. The Secretary still had to demonstrate that the no-build alternative presented truly unusual factors or would result in cost and community disruption of extraordinary magnitudes.[407] Other courts, however, appear more inclined to accept a decision by the Secretary that only certain, limited alternatives will meet the goals of the agency. These courts have ruled that the no-build alternative is an inherently imprudent alternative to achieving those goals.[408]

c. All Possible Planning to Minimize Harm

The Section 4(f)(2) process requires the Secretary to undertake "all possible planning to minimize harm" to park land or other protected resources before the project may be approved by the Secretary of Transportation.[409] The Secretary must address this requirement once he has determined that a proposed project will actively or constructively use protected property, and that there are no feasible and prudent alternatives to such use. At this point, Section 4(f)(2) requires the Secretary to reconsider the route through the protected land and to undertake planning to minimize its adverse impacts. The Supreme Court did not consider this statutory requirement in *Overton Park*.

The courts have recognized that the "all possible planning" requirement places an affirmative duty on the Secretary to minimize the damage to Section 4(f) property before approving any route using such

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[397] *Id.*

[398] *Id.* at 808.

[399] *Id.* at 803.

[400] *See* Committee to Preserve Boomer Lake Park v. United States Dep't of Transp., 4 F.3d 1543 (10th Cir. 1993).

[401] Policy Paper, *supra* note 346, at 4.

[402] 910 F.2d 159 (4th Cir. 1990).

[403] *Id.* at 163.

[404] *Id.*

[405] *See, e.g.,* Stop H-3 Ass'n v. Dole, 740 F.2d 1442, 1455–56 (9th Cir. 1984) (requiring full consideration of a no-build alternative, including possibility of increasing bus transit on existing highway rather than constructing new Interstate), *cert. denied*, 471 U.S. 1108 (1985); Benton Franklin Riverfront Trailway & Bridge Comm. v. Lewis, 701 F.2d 784, 789–90 (9th Cir. 1983) (requiring consideration of rehabilitating an historic bridge for a bicycle trail as an alternative to its destruction); Coalition for Canyon Preservation v. Bowers, 632 F.2d 774, 785 (9th Cir. 1980) (requiring consideration of an improved two-lane road as an alternative to a four-lane highway).

[406] 740 F.2d 1442 (9th Cir. 1984), *cert. denied*, 471 U.S. 1108 (1985).

[407] *Id.* at 1455.

[408] *See, e.g.,* Hickory Neighborhood Defense League v. Skinner, 910 F.2d 159, 164 (4th Cir. 1990) (alternatives not fulfilling transportation needs of project properly rejected as imprudent); Ringsred v. Dole, 828 F.2d 1300, 1304 (8th Cir. 1987) (parkway not prudent alternative to freeway because would not effectuate purposes of project and so was "by definition, unreasonable"); Druid Hills Civic Ass'n v. Federal Highway Admin., 772 F.2d 700, 715 (11th Cir. 1985) (upholding rejection of no-build option for failure to meet need for highway project); La. Envtl. Soc'y v. Coleman, 537 F.2d 79, 85 (5th Cir. 1976) (finding no-build alternative to destruction of historic bridge imprudent because would not fill need for new highway).

[409] 49 U.S.C. § 303(c).

property.[410] A leading Fifth Circuit case describing this duty under Section 4(f)(2) is *Louisiana Environmental Society v. Coleman*.[411] A bridge was planned that would cross a lake. The court held that prudent or feasible alternatives to the lake crossing were not available. It then held that Section 4(f)(2) required consideration of another alternative for crossing the lake if it would minimize harm. This determination required a "simple balancing process which would total the harm to the recreational area of each alternate route and select the route which does the least total harm."[412]

Under this analysis, the Secretary must first determine the amount of harm each alternative route inflicts on Section 4(f) property. Similar to the "feasible and prudent alternatives" directive of Section 4(f)(1), the agency must then consider alternatives that would minimize harm to the protected property the agency will use. However, courts have emphasized the differences between subsections (1) and (2) of Section 4(f). They uniformly hold that considerations that might make an alternative imprudent under subsection (l)—such as the displacement of persons or businesses or failure to satisfy the project's purpose—are "simply not relevant" to the minimization requirement of subsection (2).[413] Rather, "the only relevant factor in making a determination whether an alternative route minimizes harm is the quantum of harm to the park or historic site caused by the alternative."[414]

After assessing the amount of harm that would be caused by each alternative route through the park land, the Secretary must select the route that does the least total harm to that property.[415] The Secretary may reject any alternative that does not minimize harm.[416] The Secretary is also free to choose between alternatives that are determined to cause "equal damage"[417] and he may also choose between alternative routes when the damage is "substantially equal."[418] Although the goal is to adopt the least damaging route, the Fifth Circuit in *Louisiana Environmental Society* made clear that the Secretary may still reject a route that would minimize harm to Section 4(f) property, but "only for truly unusual factors other than its effect on the recreational area."[419] To reach this conclusion, the court held that Section 4(f)(2) contains an implied "feasible and prudent" exception like that found in Section 4(f)(1):

> Since the statute allows rejection of a route which completely bypasses the recreational area if it is unfeasible or imprudent, it is totally reasonable to assume that Congress intended that a route which used the recreational area but had a less adverse impact could be rejected for the same reason.[420]

In a number of cases the courts have held that the harm to a protected resource was sufficiently minimized under Section 4(f)(2), or that the Secretary properly rejected an alternative route as imprudent.[421] *Druid Hills Civic Association v. Federal Highway Administration*[422] indicates when agency findings under Section 4(f)(2) are inadequate. The Secretary approved the construction of a highway in Atlanta that would use park lands and historic sites, rejecting three alternatives for failing to minimize harm to Section 4(f) property. The Eleventh Circuit held the administrative record was "significantly deficient" because it did not consider the types of impacts the rejected alternatives would cause, the characteristics of the property that would be affected, or the degree of harm that would occur.[423] Because the record contained only generalized and conclusory statements that the rejected alternatives would "adversely affect" certain historic districts, the court held that the Secretary did not have sufficient information to make an informed comparison of the relative harms that would be imposed by the various alternatives.[424]

The court remanded the case to the Secretary for more intensive consideration of the alternative impacts on the Section 4(f) properties at issue. It directed the

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[410] Monroe County Conservation Council, Inc. v. Volpe, 472 F.2d 693, 701 (2d Cir. 1972).

[411] 537 F.2d 79 (5th Cir. 1976).

[412] *Id.* at 86.

[413] Druid Hills Civic Ass'n v. Federal Highway Admin., 772 F.2d 700, 716 (11th Cir. 1985); Adler v. Lewis, 675 F.2d 1085, 1095 (9th Cir. 1982).

[414] Druid Hills, 772 F.2d at 716.

[415] Louisiana Envtl. Soc'y at 85.

[416] *Id. See also* Md. Wildlife Fed'n v. Dole, 747 F.2d 229, 236 (4th Cir. 1984) (judiciary should not read a conclusion of "equal harm" into Secretary's weighing process when record does not indicate such a finding).

[417] Md. Wildlife Fed'n, 747 F.2d at 236.

[418] Louisiana Envtl. Soc'y v. Coleman, 537 F.2d 79, 86 (5th Cir. 1976).

[419] Louisiana Envtl. Soc'y, 537 F.2d at 86. *See* Druid Hills Civic Ass'n v. Federal Highway Admin., 772 F.2d 700, 716 (11th Cir. 1985).

[420] *Id.*

[421] Concerned Citizens Alliance, Inc. v. Slater, 176 F.3d 686 (3rd Cir. 1999) (bridge alignment through historic district). Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190 (D.C. Cir.), *cert. denied*, 502 U.S. 994 (1991) (upholding mitigation plan); Hickory Neighborhood Defense League v. Skinner, 893 F.2d 58 (4th Cir. 1990) (Secretary may reject alternative as not prudent even though it does not minimize harm); Coalition on Sensible Transp., Inc. v. Dole, 826 F.2d 60 (D.C. Cir. 1987) (harm minimized); Eagle Foundation, Inc. v. Dole, 813 F.2d 798 (7th Cir. 1987) (same); Druid Hills Civic Ass'n Inc. v. Federal Highway Admin., 772 F.2d 700 (11th Cir. 1985), *on remand*, 650 F. Supp. 1368 (N.D. Ca. 1986) (same); Adler v. Lewis, 675 F.2d 1085 (9th Cir. 1982); Town of Fenton v. Dole, 636 F. Supp. 557 (N.D.N.Y. 1986) (same); Ashwood Manor Civic Ass'n v. Dole, 619 F. Supp. 52 (E.D. Pa. 1985) (same) *aff'd mem.* 779 F.2d 41 (3d Cir. 1985), *cert. denied*, 475 U.S. 1082 (1986); Stop H-3 Ass'n v. Lewis, 538 F. Supp. 149 (D. Haw. 1982), *aff'd sub nom.* Stop H-3 Ass'n v. Dole, 740 F.2d 1442 (9th Cir. 1984), *cert. denied*, 471, U.S. 1108 (1985).

[422] 772 F.2d 700 (11th Cir. 1985).

[423] *Id.* at 718.

[424] *Id.* at 717.

Secretary to assess the characteristics of the property that would be affected, the extent of any previous commercial development impacts on the historic districts, and the nature and quantity of harm that would accrue to the park or historic site that was affected.[425] On remand, the district court held that the analysis was sufficient to satisfy Section 4(f)(2).[426]

[425] *Id.* at 718.

[426] 650 F. Supp. 1368 (N.D. Ga. 1986), *aff'd on other grounds*, 833 F.2d 1545 (11th Cir. 1987), *cert. denied*, 488 U.S. 819 (1988).

SECTION 3

OTHER ENVIRONMENTAL LAWS APPLICABLE TO TRANSPORTATION PROJECTS

A. SECTION 404 OF THE CLEAN WATER ACT*

Nearly every highway or transportation project of any significance, and many smaller ones as well, encounter wetlands or water bodies protected under Section 404 of the Federal Water Pollution Control Act. This statute, commonly known as the Clean Water Act (CWA), was enacted in 1972 and established national programs for the prevention, reduction, and elimination of water pollution.[1] The broadly stated purpose of the CWA is to restore and maintain the integrity of the nation's waters.[2] The Secretary of the Army, acting through the U.S. Army Corps of Engineers (Corps), is authorized by Section 404 to issue permits for the discharge of dredged or fill material into waters of the United States, which include wetlands.[3] Wetlands, as defined by the regulations implementing the CWA, generally include swamps, marshes, bogs, and similar areas. [4]

The Army Corps' role as an environmental regulatory agency derives from its historic role in ensuring the navigability of the nation's waterways for defense and commercial purposes. Prior to enactment of the CWA, Section 10 of the Rivers and Harbors Act of 1899 authorized the Corps to issue permits for the dredging, filling, or obstructing of "navigable waters."[5] Navigable waters include "those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce."[6] But with the 1972 amendments to the CWA, Congress evinced the intent to expand jurisdiction over waters of the United States to the fullest extent of the commerce clause, which, it came to be understood, encompasses wetlands.[7]

The Corps and the U.S. EPA share responsibility for administering Section 404. The Corps is authorized to issue Section 404 permits in compliance with the guidelines issued by the EPA for the selection of specific disposal sites (the "404(b)(1) Guidelines").[8] The EPA, Fish and Wildlife Service (FWS), and the National Marine Fisheries Service also play a reviewing role in assessing individual permit applications through an interagency notice and comment process and can appeal wetland fills determined to have a substantial and unacceptable impact on resources of national importance.[9] The EPA may also veto the Corps' approval of permits if the discharge will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fisheries, wildlife, or recreation areas.[10]

Transportation projects involving discharges of dredged or fill material into wetlands that are subject to CWA jurisdiction will require a Section 404 permit from the Corps unless the proposed discharge qualifies for a specific statutory exemption. Filling activities may qualify for a Section 404 general permit if certain criteria are met, but otherwise require an individual Section 404 permit. General permits authorize activities on a generic basis where they are substantially similar in nature or are subject to duplicative regulatory controls and cause only minimal individual and cumulative environmental effects. These may be issued on a nationwide or regional basis. Individual permits are required for projects requiring extensive filling activities and are subject to public and interagency notice and comment.

1. Geographic Jurisdiction

a. Definition of "Waters of the United States"

The CWA defines "waters of the United States" simply as "navigable waters." This term was historically interpreted under the Rivers and Harbors Act as limited to bodies of water used to transport interstate and foreign commerce. In its implementation of the CWA, the Corps defined "waters of the United States" so as to expand its regulatory jurisdiction to the fullest extent permitted under the U.S. Constitution's Commerce Clause.[11]

The Corps' 1977 regulations asserted federal jurisdiction over three geographic types of wetlands: (1) interstate wetlands; (2) wetlands adjacent to other waters of the United States; and (3) intrastate, nonadjacent wetlands that could affect interstate or foreign commerce.[12] Although this regulatory initiative resulted in a very expansive geographic reach of jurisdiction over development of wetlands, it was upheld under the Commerce Clause in the 1985 Supreme Court decision, *United States v. Riverside Bayview Homes, Inc.*[13]

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* This section updates, as appropriate, and relies in part upon MICHAEL C. BLUMM, HIGHWAYS AND THE ENVIRONMENT: RESOURCE PROTECTION AND THE FEDERAL HIGHWAY PROGRAM (Nat'l Cooperative Highway Research Program, Legal Research Digest No. 29, 1994).

[1] Section 3.A.5 *infra* of this report discusses water quality certification under § 401 of the CWA. Permitting for point source discharges of stormwater under § 402 of the CWA is discussed in §§ 3.B.1 and 5.B *infra*.

[2] 33 U.S.C. § 1251(a).

[3] 33 U.S.C. § 1344; 33 C.F.R. Pt. 328.

[4] 40 C.F.R. § 230.3(t) and 33 C.F.R. § 328.3(b) provide, respectively, the EPA and Corps definitions of wetlands.

[5] 33 U.S.C. § 403.

[6] 33 C.F.R §§ 323.2(a), 329.

[7] MICHAEL C. BLUMM, HIGHWAYS AND THE ENVIRONMENT: RESOURCE PROTECTION AND THE FEDERAL HIGHWAY PROGRAM 8 (Nat'l Cooperative Highway Research Program, Legal Research Digest No. 29, 1994).

[8] 33 U.S.C. § 1344(b)(1); 40 C.F.R. § 230.1 *et seq*.

[9] 33 U.S.C. § 1344(m).

[10] 33 U.S.C. § 1344(c).

[11] BLUMM, *supra* note 7, at 8.

[12] 33 C.F.R. § 328.3(a).

[13] 474 U.S. 121 (1985).

The *Riverside Bayview Homes* decision did not resolve all controversy over the Corps' ability to regulate the filling of "isolated wetlands" based on the possibility that those wetlands could affect interstate commerce. That decision did not rule on the question of whether wetlands not connected with other waters were within the jurisdictional reach of the Section 404 program.[14] However, other courts upheld Section 404 jurisdiction over isolated waters where there was demonstrated effect on interstate commerce, such as where the site was visited by out-of-state residents for recreation or study and the discharge would affect such visits.[15]

In *Hoffman Homes, Inc. v. EPA (Hoffman 1)*,[16] the Seventh Circuit initially held that the Corps could not assert its jurisdiction under the Commerce Clause to regulate isolated wetlands without showing some connection to human commercial activity. The court held that the mere presence, or the potential presence, of migratory waterfowl in an isolated wetland had no effect on interstate commerce.[17] Subsequently, in *Hoffman II*,[18] the Court granted EPA's petition for rehearing and vacated its *Hoffman I* opinion. Finally, in *Hoffman III*,[19] the Court upheld the Corps' jurisdiction and Section 404 regulation over wetlands potentially used by migratory waterfowl, but rejected the EPA's contention that the wetland area in question provided suitable bird habitat.[20]

More recently, in *United States v. Wilson* the Fourth Circuit ruled that the CWA did not regulate isolated wetlands as a "water of the United States" if the wetland is without a direct or indirect surface connection to navigable or interstate waters.[21] The Corps and the EPA have issued guidance on *Wilson*, stating that the agencies would follow the Fourth Circuit's ruling only within states within that circuit.[22] In reviewing permit applications within these states, the guidance provides that the Corps will continue to assert jurisdiction over isolated water bodies where it can establish that there is an actual link between the water body and interstate or foreign commerce, and the use, degradation, or destruction of the isolated waters would have a substantial effect on interstate or foreign commerce.[23]

Most recently, in January 2001, the U.S. Supreme Court held by a 5-4 decision in the case of *Solid Waste Agency of Northern Cook County (SWANCC) v. United States Army Corps of Engineers* that the Corps exceeded its statutory authority by asserting CWA jurisdiction over an abandoned sand and gravel pit containing ponded water.[24] The Corps had relied upon the use of the gravel pit pond by some 121 species of birds to assert jurisdiction under its migratory bird rule under the premise that the presence of such birds had sufficient interstate commerce implications to support the exercise of federal jurisdiction over these state waters. The Court concluded, to the contrary, that the application of the rule in the context of the abandoned quarries would serve to read the term "'navigable waters' out of the statute."[25] As a result, the Court rejected the Corps' assertion of jurisdiction. The *SWANCC* case left open the extent to which jurisdiction over isolated intrastate "other waters" can be asserted based on their interstate commerce considerations other than by virtue of their use by migratory birds. Also, the Court's holding in *SWANCC* does not appear to have disturbed the basic holding under the Commerce Clause in the *Riverside Bayview* case.[26]

A 1989 memorandum of agreement between EPA and the Corps[27] states that the Corps will make most of the jurisdictional determinations under the Section 404 program, but reserves to EPA the right to determine jurisdiction in special cases involving situations where significant issues or technical difficulties are anticipated or exist.[28] Jurisdictional determinations by either agency bind the entire federal government.[29] Corps guidance indicates that oral determinations are not valid and that written jurisdictional determinations are valid for 3 years in most cases and 5 years with appropriation information. New information may justify or trigger revised jurisdictional determinations.[30] In addition, EPA has a program to identify and determine the extent and scope of wetlands in advance of permit application where governmental authorities are interested in particular projects.[31] This "advanced

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[14] 474 U.S. 121 (1985).

[15] *See, e.g.,* United States v. Byrd, 609 F.2d 1204 (7th Cir. 1979).

[16] 961 F.2d 1310 (7th Cir. 1992) *order vacated*, 975 F.2d 1554 (7th Cir. 1992).

[17] 961 F.2d at 1321.

[18] 975 F.2d 1554 (7th Cir. 1992).

[19] Hoffman Homes v. EPA Administrator, 999 F.2d 256 (7th Cir. 1993).

[20] *Id*.

[21] United States v. Wilson, 133 F.3d 251 (4th Cir. 1997).

[22] *Guidance for Corps and EPA Field Offices Regarding the CWA Section 404 Jurisdiction over Isolated Wetlands in Light of U.S. v. James J. Wilson* (May 29, 1998). *See* 28 ENVTL. L. REP. (ENVTL. L. INST.) 35684.

[23] *Id.*

[24] 121 S. Ct. 675 (2001).

[25] *Id*. at 682.

[26] *Id*. at 682–83; U.S. EPA and USDOA Memorandum, *Guidance for Corps and EPA Field Offices Regarding Clean Water Act Section 404 Jurisdiction* (January 19, 2001) (available at http://www.epa.gov/owow/wetlands/swancc-ogc.pdf).

[27] *Memorandum of Agreement Between the Department of Army and the Environmental Protection Agency Concerning the Determination of Geographic Jurisdiction of the Section 404 Program and Application of Exemptions under § 404(f) of the Clean Water Act* at 1-2 (Jan. 19, 1989). (*See* ENVTL. RPTR., 1 Fed. Laws 41:0551).

[28] *Id*. at 1–2.

[29] *Id*. at 5.6.

[30] Corps Regulatory Guidance Letter, RGL 90-06, 57 Fed. Reg. 6591 and 6592 (Feb. 26, 1992).

[31] 40 C.F.R. § 230.80.

identification" process may be useful for transportation projects by identifying both wetlands that may be suitable for development and those that are unsuitable.[32]

b. Wetlands Delineation[33]

The issue of what constitutes a "wetland" has been a persistent source of controversy among governmental agencies, the environmental and regulated communities, farmers, and land developers. The EPA and the Corps regulatory definition of wetlands encompasses those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.[34] Thus, the regulatory definition of wetlands involves a complex set of environmental or ecological criteria including soils, vegetation, and hydrology. Since wetland hydrology, soils, and vegetation vary from region to region, thereby creating potentially inconsistent delineation of wetlands parameters, the Corps published in 1987 a wetlands delineation manual, which provides that if at least one positive indicator of wetland soils, vegetation, and hydrology is present at a site it will be considered a regulated wetland.[35]

In 1989, the Corps (along with EPA, the Fish and Wildlife Service, and the Soil Conservation Service) released another wetland delineation manual. This manual provided more specificity with respect to the field indicators necessary to satisfy the wetlands delineation definitions. The 1989 manual was widely criticized by the regulated community because it appeared to increase the acreage subject to federal regulation. In 1991, the Bush Administration proposed revisions to the 1989 manual, but the controversy continued. In response to the controversy, Congress passed in 1992 the Energy and Water Development Appropriations Act, which prohibited the use of either the 1989 manual or the 1991 revisions without formal notice and comment rulemaking. Finally, a national wetlands plan proposed in 1993 by the Clinton Administration called for continued use of the 1987 delineation manual pending completion of a National Academy of Sciences study on wetland classification for regulatory purposes.[36] The 1987 Manual remains in use by both the EPA and the Corps.

Not only is it necessary to determine the geographic extent of a wetland, but it is also important to understand the ecological and other functions a particular wetland serves in order to assess whether the placement of fill is prudent or permissible and determine the nature and extent of mitigation. In 1983, FHWA published a two-volume manual known as the *Wetland Evaluation Technique* (WET), later updated, which outlined in broad-brush fashion a preliminary assessment approach to wetland evaluation based on predictors of wetland functions. Its purpose was to alert highway planners to the probability that a particular wetland performs specific functions and to provide information regarding the likely significance of those functions.[37] Although originally endorsed by the Corps and EPA, the WET approach has since been rejected as an unacceptable methodology for Section 404 purposes because it does not consider wildlife habitat corresponding to Corps concerns, is not regionally sensitive, and tends to bias reviewing agencies by implying a more quantifiable data base than actually exists.[38] Instead, the Corps, FHWA,[39] and other agencies are turning to an approach known as HGM, or the Hydrogeomorphic approach.[40] This approach assesses the wetland's geomorphic setting, water source, and hydrodynamics, and relates these to the likely function and ecological significance of the wetlands in question.[41]

2. Jurisdiction Over Activities

a. Definition of "Discharge"

The CWA addresses water pollution by prohibiting the discharge of pollutants from a "point source." Section 301 of the CWA prohibits all discharges of pollutants from a point source without a permit.[42] Section 404 authorizes the Army Corps of Engineers to issue permits for the "discharge of dredged or fill material" into navigable waters of the United States.[43] What constitutes a discharge is not always clear. Typical "dredged or fill materials" that are regulated as a discharge of a "pollutant" from a "point source,"[44] and

[32] BLUMM, *supra* note 7, at 8.

[33] This discussion is taken in substantial part from BLUMM, *supra* note 7, at 8-9.

[34] 40 C.F.R. § 230.3(t) and 33 C.F.R. § 328.3(b).

[35] U.S. ARMY CORPS OF ENGINEERS, CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (1987).

[36] See BLUMM, *supra* note 7, at 9 for an expanded version of this chronology.

[37] *Id*.

[38] U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT, THE HIGHWAY METHODOLOGY WORKBOOK SUPPLEMENT, NAEEP-360-1-30a, at 8 (1999).

[39] Letter from Anthony R. Kane, FHWA, to Michael L. Davis, Department of the Army, August 6, 1996 (The FHWA continues to support the Army Corps in the development of a regionalized functional wetlands assessment methodology and the HGM approach appears capable of meeting FHWA needs and facilitating merger of the NEPA and Section 404 processes) available at www.fhwa.dot.gov//environment/guidebook/vol1/doc14i.pdf.

[40] *See* MARK M. BRINSON, *A HYDROGEOMORPHIC CLASSIFICATION FOR WETLANDS (*Army Corps of Engineers Wetlands Research Program Technical Report WRP-DE-4, 1993).

[41] *Id*.

[42] 33 U.S.C. § 1311.

[43] 33 U.S.C. § 1344(a).

[44] "Point source" is defined in 33 U.S.C. § 1362(14) as any

thereby require a permit from the Corps, include rock, silt, organic debris, topsoil, and other fill material that are placed into a federal jurisdictional wetland with the use of dump trucks, bulldozers, and other similar mechanized equipment or vehicles.[45] For example, the EPA and Corps have expressed the opinion that plowing snow into wetland areas would constitute a discharge subject to Section 404 regulation if it results in moving gravel, sand, or similar materials into the regulated area.[46] Covering, leveling, grading and filling formerly vegetated sites and erosion from construction sites are also considered a discharge of fill material.[47]

The basis for regulation and permitting by the Corps of other activities in or affecting wetlands such as draining; placement of pilings; and land clearing involving excavation, ditching, and channelization that destroy or damage wetlands, is less than clear. For example, the Fourth Circuit Court, in *United States v. Wilson*,[48] restricted Corps jurisdiction over dredging when the dredging involves the practice of "side casting"—depositing material dredged in digging a ditch in wetlands to the side. Under the court's analysis, sidecasting is not a violation of the CWA because it does not represent an addition of a pollutant.[49]

Draining, even though it may destroy and impact significant amounts of wetlands, has generally not been considered a discharge of dredged or fill material requiring a Section 404 permit. The Fifth Circuit was directly confronted with the drainage question in *Save Our Community v. United States EPA*, where it ruled that drainage *per se* is not subject to Section 404 permit requirements.[50] Subsequent development activities on the drained wetland may require a Section 404 permit, if the area, although drained, continues to satisfy the definition of wetlands because it includes areas that "under normal circumstances support a prevalence of vegetation adapted to live in saturated soil conditions."[51]

Another wetland activity of uncertain jurisdiction is the placement of pilings. A Section 404 permit is generally not required for the placement of pilings in linear projects such as bridges, elevated walkways, and powerline structures, or for piers or wharves.[52] However, when pilings are placed tightly together or closely spaced so that they effectively replace the bottom of the waterway or reduce the reach or impair the flow of jurisdictional waters, the pilings may be considered fill material, thus requiring a Section 404 permit.[53]

Finally, Corps regulation of land-clearing activities involving dredging, such as excavation, ditching, and channelization of wetlands, has been a subject of controversy and uncertainty. In *Avoyelles Sportsmen's League v. Marsh,*[54] in 1982, the Fifth Circuit ruled that the redeposit of soil taken from wetlands during mechanized land-clearing activities can be regulated under Section 404 as a discharge of fill material. In 1993, in an effort to settle a suit brought by the North Carolina Wildlife Federation,[55] the Corps and EPA issued regulations often referred to as the "Tulloch Rule." These regulations redefined "discharge of dredged material" to mean

> any addition of dredged material into, including any redeposit of dredged material within, the waters of the United States. The term includes, but is not limited to the following: (i) The addition of dredged material to a specific discharge site located in the waters of the United States, (ii) the runoff or overflow from a contained land or water disposal area and (iii) any addition, including any redeposit, of dredged material, including excavated material into waters of the United States, which is incidental to any activity, including mechanized land-clearing, ditching, channelization, or other excavation.[56]

However, in 1997 the "Tulloch Rule" was challenged in litigation brought by the American Mining Congress, American Road and Transportation Builders Association, National Aggregates Association, and the American Forest and Paper Association. In their lawsuit, the plaintiffs challenged the Corps' and EPA's 1993 revision to the definition of "discharge of dredged material." In response, the U.S. District Court of the District of Columbia handed down a decision in *American Mining Congress et. al. v. United States Army Corps of Engineers*[57] that held that the rule regulating incidental fallback during dredging and excavation of wetlands was outside the agencies' statutory authority. The government then filed a notice of appeal with the U.S. District Court of the District of Columbia as well

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discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

[45] WILLIAM L. WANT, LAND OF WETLANDS REGULATION, (1989), at § 4:33, citing United States v. Banks, 873 F. Supp. 650, 657 (S.D. Fla. 1995).

[46] 66 Fed. Reg. 4570 (January 17, 2001).

[47] WANT, *supra* note 45, at § 4:33, citing United States v. Banks at 657 and Hudson River Fisherman's Ass'n v. Arcuri, 862 F. Supp. 73, 75-76 (S.D.N.Y. 1994).

[48] United States v. Wilson, 133 F.3rd 251 (4th Cir. 1997).

[49] *Id*. at 260.

[50] Save Our Community v. United States Environmental Protection Agency, 971 F.2d 1155, 1167 (5th Cir. 1992).

[51] 40 C.F.R. § 230.3(t) and 33 C.F.R. § 328.3(b).

[52] 33 C.F.R. § 323.3(c)(2).

[53] 33 C.F.R. § 323.3(c)(1).

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

[55] N.C. Wildlife Fed'n v. Tulloch, Civ. No. C90-713-CIV-5-BO (E.D.N.C. 1992).

[56] 33 C.F.R. § 323.2 (d)(1)(i)-(iii) (August 25, 1993).

[57] American Mining Congress et. al. v. United States Army Corps of Engineers, 951 F. Supp. 267 (1997).

as a motion for stay of the District Court's judgment. While this appeal was pending, the Corps and EPA in 1997 promulgated a joint interim guidance letter instructing Corps and EPA field personnel to "not undertake any administrative or judicial enforcement actions for Clean Water Act Section 404 violations where the only grounds for jurisdiction over the activities in question are the types of 'incidental fallback' discharges of dredged material defined by the Court…."[58] In addition, "if the Corps has issued a permit where the only basis for jurisdiction was 'incidental fallback' and the permittee is not complying with the permit terms or conditions, the Corps shall not undertake any enforcement action for such non-compliance during this interim period."[59]

In 1998, the U.S. Court of Appeals for the District of Columbia, in *National Mining Association v. U.S. Army Corps of Engineers*,[60] struck down the Tulloch Rule, thereby prohibiting the Corps from regulating activities that result in the incidental fallback of dredged material into wetlands. The Court later denied a Corps petition for rehearing *en banc.*

In response to the D.C. Circuit's ruling in *National Mining Congress*, the Corps and EPA promulgated and subsequently amended a final rule[61] revising the regulatory definition of "discharge of dredged material." The final rule modifies the former Tulloch Rule as follows: the rule (1) now applies only to "redeposit of dredged materials" rather than "*any* redeposit;" (2) expressly excludes "incidental fallback" from the definition of "discharge of dredged materials;" (3) defines "incidental fallback" as "the redeposit of small volumes of dredged material that is incidental to excavation activities in waters of the United States when such material falls back to substantially the same place as the initial removal…;" and (4) establishes a rebuttable presumption that the use of mechanized earth moving equipment to conduct land clearing, ditching, channelization, or other earth moving activity in waters of the United States will result in a discharge subject to regulation.[62] Thus, the rule recognizes that some redeposits of dredged materials may constitute a discharge requiring a permit. Under the new rule, determinations whether a redeposit is subject to CWA jurisdiction will be made on a case-by-case basis.

b. Exempt Activities: Discharges Not Requiring Permits

Section 404(f) of the CWA exempts six categories of minor discharges into wetlands associated with small-scale, relatively routine activities for the following: (1) normal farming, ranching, and silvaculture (forestry or timber) activities, such as plowing, seeding, minor draining, and harvesting; (2) constructing or maintaining farm or stock ponds, irrigation ditches, or maintaining (but not constructing) drainage ditches; (3) constructing temporary sedimentation basins on construction sites that do not include the placement of fill material into waters of the United States; (4) constructing or maintaining farm, forest, or mining roads; (5) maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures; and (6) any activity with respect to which a state has an approved program under Section 208(b)(4) regarding nonpoint sources of pollution and water quality management.[63] None of these exemptions is available if the discharge would change the use of the waters, impair flow or circulation, or reduce their reach, and, thus, actions with greater effects such as significant discernible alteration to water flow or circulation will require a permit.[64] The exemptions with greatest applicability to highway and other transportation projects are the maintenance of drainage ditches, maintenance of currently serviceable structures, and the construction of temporary sedimentation basins on construction sites. Federal construction projects specifically authorized by Congress are also exempt from the Section 404 permitting program. This exemption, authorized by Section 404(r), has been rarely invoked, and its legislature history indicates that the exemption is intended only for projects entirely planned, financed, and constructed by a federal agency rather than, for example, state highway projects built with federal dollars.[65]

3. General Permits

The 1977 CWA amendments authorized the Corps to issue general permits on a state, regional, or nationwide basis for any category of activities where the activities are similar in nature and will have only minimal individual and cumulative environmental impacts.[66] There are three types of general permits: nationwide, regional, and programmatic. These are discussed below.

a. Nationwide Permits

The nationwide permit (NWP) program that came into effect on January 21, 1992, expired on January 21, 1997. On December 13, 1996, in anticipation of the 1997 expiration date, the Corps published a Final Notice of

[58] U.S. Army Corps of Engineers/Environmental Protection Agency Guidance Regarding Regulation of Certain Activities in Light of American Mining Congress et. al. v. U. S. Army Corps of Engineers 2 (April 11, 1997).

[59] *Id.* at 2.

[60] 145 F.3d 1399 (D.C. Cir. 1998).

[61] 64 Fed. Reg. 25120 (May 10, 1999); 66 Fed. Reg. 4550 (January 17, 2001).

[62] 33 C.F.R. § 323.2(d); 40 C.F.R. § 232.2 (July 1, 2001).

[63] 33 U.S.C. § 1344(f), 33 C.F.R. § 322.4.

[64] 33 U.S.C. § 1344(f)(2); 33 C.F.R. § 323.4(c).

[65] 33 U.S.C. § 1344(r); 33 C.F.R. § 323.4(d); *see* BLUMM, *supra* note 7, at 10 for discussion of legislative history.

[66] 33 U.S.C. § 1344(e).

Issuance, Reissuance, and Modification of Nationwide Permits,[67] which reissued all previously existing NWPs and conditions, adopted two new NWPs, and modified others. There are now 43 adopted NWPs in effect, authorizing discharges for a whole range of wetland activities. Many of these became effective on February 11, 1997, and will expire on the same date in 2002.

The NWPs with the greatest potential applicability to transportation projects include: NWP 3, authorizing maintenance, repair, rehabilitation, or replacement of previously authorized currently serviceable fills; NWP 6, authorizing survey activity including soil survey and sampling; NWP 7, authorizing activities related to outfall structures where the effluent from the outfall is permitted under the NPDES program; NWP 12, authorizing backfill or bedding for utility lines; NWP 13, authorizing bank stabilization activities less than 500 ft in length to prevent erosion; NWP 14, authorizing minor road crossing fills that involve less than 1/2 acre of fill in non-tidal waters and less than 1/3 acre of filled tidal waters or associated wetlands and less than 200 linear ft of fill for the roadway within wetlands;[68] NWP 15 authorizing discharges incidental to the construction of bridges across navigable waters where a Coast Guard bridge permit authorizes the discharge; NWP 18, authorizing minor discharges of less than 25 cubic yds of fill below the ordinary high water or high tide line where the discharge will cause the loss of less than one-tenth of an acre of wetlands; NWP 23, authorizing activities by other federal agencies that are categorically excluded from the EIS requirement of NEPA where the Corps concurs in the exclusion; NWP 25, authorizing discharges of material such as concrete, sand, rock, etc., into tightly sealed forms or cells to be used for standard pile-supported structures such as bridge and walkway footings; NWP 27, authorizing wetland and riparian restoration and creation controlled by federal agencies; NPW 31, authorizing the discharge of dredged or fill material for the maintenance of existing debris basins, retention or detention basins, channels, and other flood control facilities; NWP 33, authorizing temporary dewatering from construction sites employing best-management practices; NWP 39, authorizing discharges resulting in the loss of up to 1/2 acre of nontidal waters or 300 linear ft of stream bed for institutional development, including government office and public works facilities; NWP 41 authorizing discharges into nontidal waters associated with reshaping, but not moving or increasing the drainage capacity of, drainage ditches; and NWP 43 authorizing discharges for the construction and maintenance of stormwater facilities.[69]

Many of these nationwide permits are subject to predischarge notification requirements, which allows the Corps and other agencies time to review the proposed activity. Activities authorized by a nationwide permit must comply with a set of general conditions, as well as the conditions specific to the particular permit in question. Corps District Engineers may add region-specific conditions to a permit.[70]

NWP 26, which formerly allowed up to 10 acres of wetland filling above the headwaters of streams and in isolated waters, is no longer in effect. It was reissued along with other NWPs in 1997, but with a reduction to 3 acres in the amount of authorized fill, and for an interim period of 2 years. This permit continued to provoke controversy, and in 1998, the Corps proposed to phase out NWP 26 entirely and replace it with several new activity-specific permits.[71] This took place in 2000, with the adoption of five new permits and the modification of several others.[72]

b. Regional Permits

Regional permits are another type of general permit issued by the Corps division and district engineers. As with the NWP program, many regional permits are also subject to predischarge notification requirements and contain specified conditions. In reissuing the nationwide permits in 1996, the Corps announced its intention to regionalize the nationwide permit program by encouraging the application of region-specific conditions, including "the revocation of certain NWPs in aquatic environments of particularly high value, and the addition of regional limitations to specifically address needs for protection of specific environmental assets."[73] Transportation agencies should become familiar with the general permits available in their region, including any limitations on the use of NWPs, and the applicability of any programmatic permits.

c. Programmatic General Permits

Programmatic general permits are a type of regional permit that is intended to avoid unnecessary duplication of regulatory programs at the federal, state, or local levels.[74] For example, programmatic general permits may authorize certain amounts of fill without the need for an individual Section 404 permit, subject to conditions including the approval of the local wetlands

[67] 61 Fed. Reg. 65874 (December 13, 1996); revised and additional permits announced at 65 Fed. Reg. 12818 (March 9, 2000).

[68] The Corps proposed further revisions to this NWP in June 2001. *See Corps Considers Relaxation of Permits; Stream Bed Activities Prohibitions Targeted,* 32 B.N.A. ENV'T REP. 1140 (2001).

[69] 61 Fed. Reg. 65913 (December 13, 1996); 65 Fed. Reg. 12818 (March 9, 2000).

[70] *See* 61 Fed. Reg. 65876 (December 13, 1996) (Corps has directed its districts to add region-specific conditions to all NWPs).

[71] 63 Fed. Reg. 36040 (July 1, 1998); 63 Fed. Reg. 55095 (Oct. 14, 1998).

[72] 65 Fed. Reg. 12818 (March 9, 2000).

[73] 61 Fed. Reg. 65875 (December 13, 1996).

[74] BLUMM, *supra* note 7, at 11.

agency under applicable state law.[75] The presumption is that for that category of fill, the state regulatory process is sufficient to ensure that the federal interests under Section 404 are protected.

4. Individual Permits[76]

When a discharge of dredged or fill material into a wetland does not qualify for any of the general permits or for an exemption, an individual permit is required. Individual permits are required before a discharge into wetlands occurs; however, "after-the-fact" discharges may also be eligible for an individual permit.[77] Project proponents seeking an individual permit must submit an application to the regional Corps district engineer, who then issues a public notice and determines whether to hold a public hearing on the application.

The review process entails comment by other agencies. For example, the Corps will consult with the EPA, Fish and Wildlife Service (FWS), and the National Marine Fisheries Service (NMFS) during review of the application to assess wildlife impact issues potentially caused by the proposed filling activity.[78] Section 404 permit applications must be reviewed pursuant to a variety of federal laws, including the Fish and Wildlife Coordination Act, Endangered Species Act, and the Marine Mammal Protection Act. Review is also required under NEPA, the NHPA, Wild and Scenic Rivers Act, Coastal Zone Management Act (CZMA), and the CWA's state water quality-certification process.[79] Although the Section 404 permitting process requires interagency consultation, the Corps need not defer to the views of other agencies except in the case of state water quality certifications and coastal zone consistency findings. In order to help expedite permit application reviews, the Corps has entered into memoranda of agreement (MOAs) pursuant to CWA Section 404(q) with EPA, FWS, and the NMFS.[80] The MOAs limit the ability of these federal reviewing agencies to administratively appeal objectionable permits to the assistant secretary of the army.[81] Under the MOAs, such appeals can only be invoked where the reviewing agency believes that the proposed discharge would have a substantial and unacceptable impact on aquatic resources of national importance.[82]

a. Permit Standards

In reviewing Section 404 individual permit applications, the Corps is required to consider various policies and standards. These policies and standards include Section 404(b)(1) guidelines promulgated by the EPA and public interest review criteria as defined in 33 C.F.R § 320.4.

i. Section 404(b)(1) Guidelines.—Section 404(b)(1) of the CWA requires all Section 404 permits to be evaluated in accordance with criteria promulgated by EPA.[83] No Section 404 individual permit can be issued without complying with the guidelines. Section 404(b)(1) guidelines require that no discharge have an "unacceptable adverse impact" on wetlands or cause a significant degradation to the waters of the United States. In general, the guidelines provide that an individual permit should not be issued if: (1) practicable, environmentally superior alternatives are available, (2) the discharge would result in a violation of various environmental laws, (3) the discharge would result in significant degradation to the waters of the United States, or (4) appropriate and practicable steps have not been taken to minimize potential adverse impacts of the proposed discharge.[84]

The guidelines prohibit the filling of wetlands where there exists a practicable alternative having a less adverse impact. The guidelines define a practicable alternative as one "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." A practicable alternative may include consideration of other properties not owned by the applicant if the site could reasonably be obtained, used, expanded, or managed to fulfill the basic purpose of the proposed activity.[85]

For activities associated with a "special aquatic site" that are not "water dependent," the guidelines establish a rebuttable presumption that practicable alternatives exist.[86] An applicant must show that there are no upland sites that could accommodate a project to rebut this presumption.[87] The guidelines also provide a complete prohibition of certain types of discharges, such as those discharges that would cause or contribute to a violation of applicable State water quality standards.[88] In addition, the guidelines also completely prohibit permit issuance for any discharge that would have significant adverse effects on human health or welfare,

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[75] *See, e.g.,* Programmatic General Permit, Commonwealth of Massachusetts, No., 199901470, effective January 11, 2000, establishing programmatic approval of many projects that receive local approval under the state Wetlands Protection Act, M.G.L.A. c. 131, § 40. (West 1991, Supp. 2001).

[76] This subsection is based in substantial part on BLUMM, *supra* note 7, at 11.

[77] 33 C.F.R. § 326.3(e).

[78] 33 C.F.R. § 320.4(c).

[79] 33 C.F.R. § 320.3.

[80] 33 U.S.C. § 1344(q).

[81] Clean Water Act Section 404(q) Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army (August 11, 1992); *See* BLUMM, *supra* note 7, at 11, n.286.

[82] *Id.* at § IV.1.

[83] 33 U.S.C. § 1344(b)(1).

[84] 40 C.F.R. § 230.10(a)-(d).

[85] 40 C.F.R. § 230.10(a).

[86] § 230.10(a)(3).

[87] *Id*.

[88] *Id.* at § 230.10(b).

recreation, aesthetics, aquatic ecosystems, and wildlife dependent on aquatic ecosystems.[89]

The Corps has broad discretion under the guidelines in determining whether the practicable alternatives exist, and the courts will uphold findings of no practicable alternatives if supported by the administrative record.[90] Recent cases offer guidance on the extent to which the Corps must consider alternatives in the context of transportation projects. For example, in *Sierra Club v. Slater*,[91] the Sierra Club and other plaintiffs brought suit seeking to prevent the construction of an urban corridor development project known as the Buckeye Basin Greenbelt Project, which was an approximately 3.5-mi-long four-lane highway connecting downtown Toledo, Ohio, with its northern suburbs. One of the plaintiffs' claims in this case was that the Corps failed to adequately consider alternatives to the project and that the Corps could not issue the required Section 404 permit because the Ohio DOT had failed to show that no practicable alternatives existed. The court rejected this claim, finding that, although the plaintiffs may have disagreed with the substantive determination that no practicable alternatives exist, several alternatives were proposed, weighed, and rejected on the ground that they were impracticable given the project's overall purpose. Under the deferential standard of review applicable to the Corps' administrative decisions pursuant to Section 404, the court found that the Corps' decision was not arbitrary or capricious.[92]

The Corps also has broad discretion in permitting discharges only if "appropriate and practicable" mitigation measures are implemented to minimize impacts on the aquatic ecosystem.[93] Recent cases have held that it is not necessary for applicants to have a final, detailed mitigation plan prior to approval of a 404 permit and that the Corps may condition a permit on future implementation of a mitigation plan that complies with Section 404 regulations.[94]

To avoid significant degradation to wetlands as well as minimize impacts, Section 404(b)(1) guidelines require mitigation. In order to come to an agreement on mitigation, EPA and the Corps signed an MOA in 1990 that largely adopted EPA's position on mitigation, which is to advance no overall net loss of wetlands values and functions.[95]

The MOA established a new policy referred to as mitigation "sequencing." Under this concept, the Corps and EPA will prefer practicable alternatives that first avoid losses or adverse impacts to wetlands. If wetland losses or impacts are unavoidable, then these impacts must be minimized through project modifications. If project modifications still result in wetland losses or other adverse impacts, then "compensatory mitigation" such as onsite or offsite restoration or creation of wetlands is required.

ii. The Public Interest Review Criteria.—Corps regulations require all Section 404 individual permits to comply with the public interest review criteria, which attempts to balance "[t]he benefits which reasonably may be expected to accrue from the proposal…against its reasonably foreseeable detriments,"[96] including both probable and cumulative impacts of the proposed filling activities on the public interest. The Corps regulations require that the public interest review consider all relevant factors in the balancing of benefits and reasonably foreseeable detriments.[97] Among the relevant factors identified in the Corps regulations are: conservation, aesthetics, economic, land use, navigation, historic properties, floodplains, recreation, and many other factors ranging from energy needs and food and fiber production to considerations of property ownerships.[98] In addition, the Corps must consider certain general criteria in its public interest review, such as the public and private need for the project, alternative locations, and means of accomplishing the objective.[99]

The Corps has a high level of discretion in the public interest review process and the courts generally give substantial deference to the Corps' public interest review decisions. The courts will uphold findings that proposed discharges are in the public interest provided the courts can find reasonable support for the findings in the administrative record.[100]

b. EPA Authority to Veto Section 404 Individual Permits

Section 404(c) authorizes EPA to veto a Corps permit decision when the EPA Administrator determines after notice and opportunity for public hearings that the discharge of materials into an area will have an "unacceptable adverse effect on municipal water supplies, shellfish beds, and fishery areas (including spawning and breeding areas), wildlife or recreation areas."[101] EPA may issue a veto based on an "unacceptable adverse effect" if the impact on an

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[89] *Id. at* § 230.10(c).

[90] *See, e.g.,* Town of Norfolk v. United States Army Corps of Engr's, 968 F.2d 1438, 1448 (1st Cir. 1992).

[91] *See, e.g.,* Sierra Club v. Slater, 120 F.3d 623 (6th Cir. 1997).

[92] *Id.* at 636.

[93] 40 C.F.R. § 230.10(d).

[94] *See* National Wildlife Fed'n v. Whistler, 27 F.3d 1341, 1346 (8th Cir. 1994); Holy Cross Wilderness Fund v. Madigan, 960 F.2d 1515, 1528 (10th Cir. 1992).

[95] Memorandum of Agreement Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines, 55 Fed. Reg. 9210-11 (February 6, 1990) (404(b)(1)Mitigation MOA).

[96] 33 C.F.R. § 320.4(a).

[97] *Id.*

[98] *Id.*

[99] 33 C.F.R. § 320.4(a)(2).

[100] *See, e.g.,* Town of Norfolk v. United States Army Corps of Eng'rs, 968 F.2d 1438, 1448 (1st Cir. 1992).

[101] 33 U.S.C. § 1344(c).

aquatic or wetland ecosystem is likely to result in "significant degradation of municipal water supplies (including surface or ground water) or significant loss of or damage to fisheries, shellfishing, or wildlife habitat or recreation areas." [102] The EPA must consult with the Corps before making a final veto decision and the Director of the EPA must make written findings regarding the reasons for any veto determination."[103] Recent court decisions have held that EPA's authority to veto a Corps permit decision is discretionary and that the EPA Administrator is authorized, rather than mandated, to overrule the Corps.[104]

The Regional Administrator begins the first step in the Section 404(c) veto process. After the Corps publishes its notice of intent to issue a permit, the Regional Administrator may notify the Corps and the applicant that it is possible he or she will find an unacceptable adverse effect. If within 15 days the applicant fails to satisfy the Regional Administrator that no such effect will occur, the Regional Administrator must publish his proposed determination to veto the grant of a permit. A period for public comment and an optional public hearing follows, after which the Regional Administrator either withdraws the proposed determination or submits a recommended determination to the national EPA Administrator, whose decision is to affirm, modify, or rescind the Regional Administrator's recommendation in the final determination of EPA for purposes of judicial review.[105] The EPA Administrator can delegate his or her final veto determination to the EPA Assistant Administrator for Water. Section 404(c) veto regulations also require that the EPA consult relevant sections of the Section 404(b)(1) guidelines when reviewing permit decisions and examining or assessing practicable alternatives to the proposed discharge of fill material.

Although EPA uses Section 404(c) vetoes to enforce its interpretation of the substantive requirements in the Section 404(b) guidelines, there have been relatively few Section 404(c) vetoes. In what may be the most well known veto case, the Second Circuit in *Bersani v. Robichaud*[106] upheld the EPA's veto of a permit for a mall project in Attleboro, Massachusetts. The EPA had interpreted the Section 404(b)(1) guidelines as requiring the developer to determine available, practicable alternatives in light of the sites that were available at the time the developer entered the real estate market. The court upheld this interpretation and confirmed the validity of EPA's use of the Section 404(c) veto to enforce the Section 404(b) guidelines.[107]

The Fourth Circuit, in the *James City County* case,[108] also addressed the EPA's veto authority under Section 404(c). The court concluded that an EPA veto based solely on the agency's conclusion that the project would result in environmental harms was proper. The County had insisted that EPA could not veto its water supply project unless the agency determined that there were practical alternatives available to the County for addressing local water supply needs. The Court concluded that the agency need not consider the County's need for water in making its veto decision. The court noted that "the Corps conducts a 'public interest review' which, inter alia, takes into account the public and private need for the project, whether the same result could be achieved through other means, and the 'extent and permanence' of the benefits and harms the proposed project is likely to produce."[109] The court further recognized that the EPA has broad authority to veto to protect the environment and is simply directed to veto when it finds that the discharge "will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas."[110] The court went on to address the sufficiency of the evidence that environmental effects would be unacceptable, and upheld the agency's decision.[111] EPA's Section 404(c) veto authority makes its support a critical factor in whether a transportation project with wetlands impacts can be completed as planned, and warrants consultation with EPA early in the planning process.

5. Water Quality Certification Under Section 401 of the Federal CWA

A federal permit (Section 404 or National Pollution Discharge Elimination System (NPDES)) involving discharge from a point source into waters requires a water quality certification under Section 401 of the CWA.[112] Certification is based upon compliance of the proposed activity with applicable water quality standards set by the states. "A water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses."[113] States are responsible for developing water quality standards and criteria in the form of constituent concentrations, levels, or narrative statements representing the quality of water needed to support a particular use.[114] These standards and criteria

[102] 40 C.F.R. § 231.2(e).

[103] 33 U.S.C. § 1344(c).

[104] Preserve Endangered Areas of Cobb's History, Inc. et al. v. United States Army Corps of Eng'rs et al., 87 F.3d 1242, 1249 (11th Cir. 1996).

[105] 40 C.F.R. § 231.3(a).

[106] 850 F.2d 36 (2d Cir. 1988), *cert. denied,* 489 U.S. 1089 (1989).

[107] 850 72d at 46.

[108] James City County, Va. v. Environmental Protection Agency et al., 12 F.3d 1330 (4th Cir. 1993), *cert. denied,* 513 U.S. 823 (1994).

[109] 12 F.3d at 1336.

[110] *Id.*

[111] 12 F.3d. at 1336–38.

[112] 33 U.S.C. § 1341. *See generally* WANT, *supra* note 45, at § 6.12[2][a].

[113] 40 C.F.R. § 131.2.

[114] 33 U.S.C. § 1313; 40 C.F.R. § 131.3(b); § 131.4(a).

are subject to approval by the EPA.[115] A state with approved water quality standards can effectively control whether a Section 404 or NPDES federal permit issues through its Section 401 certification authority. Nationwide general permits are also subject to the certification requirements, although the certification can be one time, as to the general permit itself, rather than repeatedly with respect to each individual activity that qualifies under the permit.[116]

Judicial review on substantive grounds of a state's denial of water quality certification is exclusively in the state courts, at least to the extent that the state standards are more stringent than the minimum requirements imposed by federal law.[117]

6. Mitigation and Mitigation Banking

a. Mitigation Regulatory Requirements

The authority of the Corps to issue Section 404 permits is subject to the conditions established in the Section 404(b)(1) Guidelines, including requirements for mitigation of impacts to wetlands.[118] While damage to wetlands must be minimized to the maximum extent practicable, if damage is unavoidable then compensatory mitigation must be provided. The Corps and the EPA have entered into an MOA[119] that provides guidance on the role of mitigation in the Section 404 permitting process.

Pursuant to the MOA, after the Corps has determined that a permitee has avoided potential impacts to wetlands to the maximum extent possible, then a permitee is next required to minimize any unavoidable impacts, and finally a permitee is required to compensate for lost "aquatic resource values."[120] Strict compliance with this "sequencing" approach is not required if a regulated activity is necessary to avoid environmental harm or would result in insignificant impact to the environment. The MOA establishes minimum standards for compensatory mitigation that require functional replacement, based on an assessment of functional values, rather than acreage replacement. According to the provisions of the MOA: "mitigation should provide, at a minimum, one for one functional replacement (i.e., no net loss of values) with an adequate margin of safety to reflect the expected degree of success associated with the mitigation plan."[121]

Mitigation may be accomplished through enhancing, restoring, or creating replacement wetlands either onsite or offsite. Mitigation by wetland *enhancement* improves existing wetlands. Mitigation by wetland *restoration* requires the creation of a wetland where one previously existed. Mitigation by wetland *creation* requires the creation of a wetland where one did not previously exist. The MOA establishes a preference for onsite rather than offsite mitigation, and for wetlands restoration over wetlands creation.[122]

The Corps regulations also provide for mitigation[123] and authorize the Corps to impose permit conditions to mitigate significant losses.[124] Throughout the permit application review process, the Corps considers ways to avoid, minimize, rectify, reduce, and compensate for resource losses.[125] The Corps relies on the FWS in reviewing mitigation proposals and establishing permit conditions. Impacts that cannot be avoided must be reduced to the extent practicable through project modifications.[126] If project modifications are not sufficient to avoid impacts, then compensation for losses is required.

b. Mitigation Banking

Recognizing the uncertainty in the outcome of wetland creation, the Corps and the EPA, in the MOA, accepted the concept of mitigation banking and mitigation monitoring as permit conditions.[127] Federal guidance on the establishment and use of mitigation banks was subsequently issued in 1995.[128] The overall goal of using a mitigation bank is to provide flexibility in meeting mitigation requirements, while compensating for resource losses in a way that contributes to the functioning of the watershed within which a bank is located.[129]

Mitigation banking creates or restores wetlands in advance of any permitted dredge or fill activity. The newly established functions of these wetlands are then quantified as "mitigation credits" that are available for use by the bank sponsor or others to compensate for adverse impacts or "debits."[130] Even with the establishment or purchase of mitigation credits from a mitigation bank, applicants must first avoid and minimize wetland impacts.

"In-lieu fee" (ILF) mitigation is an alternative form of offsite mitigation that involves the payment of fees to a natural resource management entity outside of the framework of a mitigation bank. This approach has been the subject of criticism on the ground that the payments are not necessarily directly linked to the restoration of wetlands. Federal guidance was issued in 2000 to outline circumstances in which ILF mitigation

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[115] 40 C.F.R. § 131.5(a).

[116] WANT, *supra* note 45, at § 6:54 and § 6:56.

[117] Dubois v. United States Dep't of Agriculture, 102 F.3d 1273 (1st Cir., 1996); WANT, *supra* note 45, at § 6:55.

[118] 40 C.F.R. § 230.10(d).

[119] 404(b)(1) Mitigation MOA. (*See* note 95, *supra*).

[120] *Id*. at pt. II.C.

[121] MOA at pt. III.B.

[122] MOA at pt. C.3.

[123] 33 C.F.R. § 320.4(r).

[124] 33 C.F.R. § 325.4(a)(3).

[125] 33 C.F.R. § 320.4(r).

[126] *Id*.

[127] MOA at pt. II.C.3.

[128] 60 Fed. Reg. 58,605 (Nov. 28, 1995) (hereinafter cited as Mitigation Bank Guidance).

[129] Mitigation Bank Guidance, *supra* note 128, at § II.B.1.

[130] *Id*. at § II.B.

is appropriate. The guidance clarifies that funds collected should be used to replace wetlands functions and values on a one-for-one acreage basis, and not for research or public education.[131] FHWA highway funds may be used to mitigate wetlands impacts of federally-funded highway projects with in-lieu payments provided that certain conditions are met.[132]

i. Establishment of Mitigation Banks and Mitigation Banking Instruments.—The mitigation bank must be approved by the Mitigation Bank Review Team (MBRT). The primary role of the MBRT is to facilitate establishment of mitigation banks through the creation of mitigation banking instruments. Mitigation banking instruments are prepared by the bank sponsor and describe the physical, legal, and administrative characteristics of the bank. All mitigation banks are required to have a mitigation banking instrument as documentation of agency concurrence on the objectives and administration of the bank.[133] In addition to representatives from the Corps and the EPA, other agencies that may be represented on the MBRT include the FWS, NMFS, Natural Resources Conservation Service, and state and local regulatory agencies. In addition, the public is entitled to notice and comment on mitigation bank proposals. The MBRT reviews the banking instrument and final plans for the restoration, creation, enhancement, or preservation of wetlands.[134] Some 230 wetland mitigation banks in at least 35 states have been established with some form of bank instrument as of January 2000, and if bank sites within state programs are included, the number rises close to 400.[135] A number of states have mitigation banks sponsored by highway or transportation departments.[136]

ii. Use of Mitigation Banks.—The service area of a mitigation bank, designated in the banking instrument, is delineated based on consideration of hydrological and biological criteria. Use of a mitigation bank to compensate for impacts beyond a designated service area may be authorized only on a case-by-case basis.[137] For Section 404 permits, mitigation banks may be used to satisfy requirements for mitigation if either onsite mitigation is not practicable or the use of the mitigation bank is environmentally preferable to onsite compensation.[138] Factors to consider in determining whether onsite mitigation is practicable or preferable include: the likelihood of successfully establishing a desired habitat type, the compatibility of the mitigation project with adjacent land uses, and the practicability of long-term monitoring and maintenance, as well as the relative cost of mitigation alternatives. According to the Mitigation Bank Guidance, mitigation banks may be preferable to onsite mitigation in situations in which there are numerous, minor impacts to resources, such as with linear projects or impacts authorized under nationwide permits.[139] These are often the types of impacts associated with transportation projects.

In order to achieve the functional replacement of impacted wetlands and other aquatic resources, in-kind compensation is generally required. Compensation through the enhancement, restoration, or creation of wetlands with functional values that are different than those of the impacted wetlands, or "out-of-kind" compensation, may be approved only if it is determined that such out-of-kind compensation is environmentally preferable to in-kind mitigation. Decisions on out-of-kind mitigation are made on a case-by-case basis during the permitting process.[140]

iii. Technical Feasibility of Mitigation Banks.—One of the major technical concerns with the creation of mitigation banks is the need to plan and design banks that are self-sustaining over time. In general, banks that require complex hydraulic engineering are more costly to develop, operate, and maintain and have a greater risk of failure. In selecting techniques for establishing wetlands, the restoration of historic or substantially degraded wetlands or other aquatic resources is considered to be the technique that has proven most successful. [141] Among the problems associated with wetlands mitigation projects generally are: difficulty in establishing correct hydrological conditions, soils that are not appropriate for wetlands vegetation, wetland edges and shorelines that are too steep or regular, and projects that are not constructed as permitted. A study undertaken by the Army Corps Institute for Water Resources notes that success is particularly difficult at locations where an artificial hydrology mechanism is required in order to maintain wetland functions.[142]

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[131] Federal Guidance on the Use of In-Lieu Fee Arrangements for Compensatory Mitigation under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. 65 Fed. Reg. 66913 (November 7, 2000). *See* PAUL SCODARI & LEONARD SHABMAN, INSTITUTE FOR WATER RESOURCES REVIEW AND ANALYSIS OF IN-LIEU FEE MITIGATION IN THE CWA SECTION 404 PERMIT PROGRAM (2000).

[132] 65 Fed. Reg. 82921 (December 29, 2000); 23 C.F.R. § 777.9(c).

[133] Mitigation Bank Guidance at § II.C.

[134] *Id*.

[135] INSTITUTE FOR WATER RESOURCES, U.S. ARMY CORPS OF ENGINEERS EXISTING WETLAND MITIGATION BANK INVENTORY (2000), available at http://www.iwr.usace.army.mil./iwr/regulatory/banks.pdf. (IWR Inventory).

[136] *Id*. States identified as having such programs include Pennsylvania, Virginia, North Carolina, South Carolina, Alabama, Mississippi, Georgia, Florida, Arkansas, Louisiana, Texas, Wyoming, South Dakota, North Dakota, Washington, Idaho, Colorado, Nevada, and California.

[137] Mitigation Bank Guidance at § II.D.3.

[138] *Id*. at § II.D.2.

[139] *Id*. at § II.D.4.

[140] *Id*. at § II.D.5.

[141] *Id*. at § II.B.3.

[142] FARI TABATABAI & ROBERT BRUMBAUGH, INSTITUTE FOR WATER RESOURCES NATIONAL WETLAND MITIGATION BANKING STUDY: THE EARLY MITIGATION BANKS; A FOLLOW-UP REVIEW, IWR Report 98-WMB-Working Paper 21 (1998). Available at

iv. Evaluation of Past Wetland Mitigation Projects.—Recent studies have reported the results of evaluation of the ongoing functions of various wetland mitigation projects.[143] These studies report varying success in mitigation projects and confirm the importance of a dependable water source, as well as suitable hydric soils, to the creation of functioning wetland plant communities.

Of those reports reviewed, the study of mitigation projects with the highest degree of success in avoiding wetlands losses reported an average replacement ratio of 1.26 acres of wetlands created for every acre of wetland lost.[144] In its report, the Ohio EPA summarized the results of an evaluation of 10 wetland mitigation projects in Ohio. The projects were classified as restoration or creation projects based on the following criteria: if hydric soils were present at the site, it was classified as a *restoration* project; if the project site had nonhydric soils and hydric inclusions, it was classified as a *restoration/creation* project; and, if the site had only non-hydric soils, it was classified as a *creation* project. Of the 10 projects, six were classified as creation/restoration projects; two were classified as restoration projects; and the remaining two projects were classified as creation projects.[145]

Despite the reported success in creating a net gain in acreage of wetlands, the function of these mitigation wetlands in Ohio, at least in the short term, was not equal to that of naturally functioning wetlands. The results of the evaluation methodology showed that the mitigation wetlands were not functionally equivalent to the reference wetlands, used for comparison purposes, in terms of flood water retention, water quality improvement, and habitat provision.[146] The construction dates for the mitigation projects ranged from 1991 to 1994. Thus, as the Ohio EPA Final Report indicates, the mitigation wetlands may improve functionally over time, but short-term temporary losses of wetland function are difficult to avoid.[147]

In 1992, the FWS issued a report that presented an evaluation of 17 projects by the Pennsylvania Department of Transportation (PennDOT). According to the FWS Report, these projects resulted in the destruction of 42 acres of wetlands. There were 30 mitigation sites for these 17 projects that were designed to create 61.3 acres of replacement wetlands, but actually resulted in a net loss of 15.5 acres. The FWS Report concludes that a reliable water source, such as spring seeps or groundwater, was the most critical factor to the success of mitigation projects. Sites experiencing problems due to lack of reliable water source included: sites dependent on intermittent streams, sites dependent on highway runoff due to extreme fluctuations, and sites dependent on overflow of flood waters.[148] Other problems experienced at mitigation sites included excavation that exposed nutrient-poor soils; plant mortality due to deer, insects, and vandalism; nursery grown stock that did not survive after planting; and the planting of non-native species for erosion control purposes that prevented the colonization of native species.[149]

Another report, the San Francisco Bay Report, presents the results of an evaluation of past wetlands restoration projects in San Francisco Bay. Of the 11 tidal marsh restoration projects evaluated, five of the sites had major substrate alterations. All of the projects evaluated experienced some problem, such as high soil salinities, improper slopes or tidal elevations, incomplete vegetative establishment, channel erosion and sedimentation, or poor tidal circulation, and none of the projects evaluated were, at the time of the report, considered successful restoration projects.[150]

The 1998 Institute for Water Resources Report reviewed eight mitigation banks, representing a total of 10 sites, that had been identified as having technical difficulties in 1992 case studies. Of those eight sites, only four were described as successful by their sponsors as of 1998. Problems included inadequate hydrology due to improper site selection, inadequate baseline elevations, and lack of enforceable monitoring provisions and contingency plans.[151]

v. Potential Benefits of Offsite Mitigation and Mitigation Banking.—Although there are technical problems that may need to be overcome in the design and construction of offsite mitigation wetlands, offsite mitigation and mitigation banking also offer the potential to avoid certain problems and constraints associated with onsite mitigation. Permitted construction activities may reduce the wetland base on a particular site and have the potential to degrade wetlands. With offsite mitigation there is an opportunity to select a mitigation site that can produce a functioning replacement wetland. Mitigation banks can be successfully located on former or degraded wetland sites that have the essential hydrological and soils characteristics. Mitigation banking can provide an opportunity to avoid short-term losses in functional values, if advance mitigation is required by a mitigation banking program.

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http://www.iwr.usace.army.mil/iwr/pdf/wmb_wp_Jan98.pdf (hereinafter cited as IWR Report).

[143] *Id*.; OHIO EPA, A FUNCTIONAL ASSESSMENT OF MITIGATION WETLANDS IN OHIO: COMPARISONS WITH NATURAL SYSTEMS (1997) (Ohio EPA Final Report); U.S. FWS, AN EVALUATION OF 30 WETLAND MITIGATION SITES CONSTRUCTED BY THE PA DEPARTMENT OF TRANSPORTATION BETWEEN 1983 AND 1990 (Special Project Report No. 92-3, 1992)(FWS Report); Margaret Seluk Race, *Critique of Present Wetlands Mitigation Policies in the United States Based on an Analysis of Past Restoration Projects in San Francisco Bay*, ENVTL. MGMT., Vol. 9, No. 1 (1985) (San Francisco Bay Report).

[144] Ohio EPA Final Report at 1.

[145] *Id*. at 6.

[146] *Id*. at ii.

[147] *Id*. at iii.

[148] *Id*. at 9.

[149] FWS Report at i.

[150] San Francisco Bay Report at 76.

[151] IWR Report at 22–23.

Offsite mitigation can also be designed to meet regional goals for resource protection within a watershed. This can lead to the creation of larger mitigation wetland systems that are generally more self-sustaining and that can be more efficiently monitored.[152] Mitigation banking programs can be designed to capitalize on these potential benefits and ensure that the technical problems often associated with mitigation wetlands in practice are avoided. They can provide an effective means for transportation agencies to meet project mitigation requirements.

B. NPDES

1. NPDES Permit Requirements

Under the CWA, the "discharge" of any "pollutant" from any "point source" to "navigable waters" is unlawful, unless the discharge is in compliance with a NPDES permit.[153]

The scope of each of these terms, and therefore the NPDES program, is quite broad. Through the CWA, regulations promulgated by EPA, and various court decisions, the term "pollutant" has been essentially defined to include any waste material, whether natural or man-made. "Pollutant" also includes heat.[154] "Discharge" and "point source" are broadly defined to encompass any addition of pollutants to regulated waters through a pipe, ditch, container, drainage swale, or other means of collecting, channeling, or conveying. A discharge may be active (e.g., pumping), or passive (e.g., through gravity). A discharge need not be intentional (e.g., a leak from a tank, or seepage from a retention pond).[155]

The CWA defines "navigable waters" as "the waters of the United States." Through EPA regulations and court decisions, "waters of the United States" has itself been broadly defined to include such water bodies as marine waters, lakes, ponds, and rivers, but also other water bodies not usually thought of by the average citizen as "navigable." These include small streams; intermittent/seasonal streams; drainage ditches, detention ponds and other man-made conveyances and impoundments; mudflats; and wetlands.[156] (See Section 4.A for a discussion of wetlands protection under the CWA).

In general, there are few water bodies that fall outside the NPDES program. These exceptional cases include certain isolated wetlands. Whether and when the NPDES program covers discharges to groundwater has been the subject of recent litigation. Only a few federal district courts have ruled on the issue, and have each held that discharges to groundwater are not subject to NPDES permitting.[157] Such discharges may be subject to regulation under other provisions of law, however.[158] Discharges to publicly-owned wastewater treatment plants (a/k/a "publicly owned treatment works," or POTWs) are also not subject to NPDES permitting. However, such discharges can be subject to permitting or other regulation under "pretreatment" programs administered by EPA, or by state or local governments. Discharges that are exempt from federal NPDES permitting may still be subject to permitting under programs independently developed by a state or local government.

States can be authorized, or "delegated," to implement the federal NPDES program. A state can achieve delegation by developing state laws, regulations, and related programs that are consistent with and no less stringent than the NPDES program.[159] After review and approval of the program by EPA, the state is delegated to administer and enforce the NPDES program directly.[160] At present, all but seven states are delegated to implement some or all of the federal NPDES program.[161] Because of varying degrees of delegation and the constantly changing status of state delegations, state environmental authorities or the regional EPA office should be consulted for the delegation status of a specific state.

NPDES permit conditions and limitations are based on "effluent limitation guidelines" developed by EPA, which establish technology-based treatment standards on an industry-by-industry basis. In addition, when specific chemicals in a discharge cannot be identified, or when the permitting authority wants to reinforce technology-based treatment standards, a discharge

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[152] Robert Brumbaugh & Richard Reppert, INSTITUTE FOR WATER RESOURCES, NATIONAL WETLAND MITIGATION BANKING STUDY FIRST PHASE REPORT 28, Wetland Mitigation Banking, IWR Report 94-WMB-4 (1994).

[153] 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

[154] 33 U.S.C. § 1362(6); 40 C.F.R. § 122.2 (definitions of "pollutant").

[155] 33 U.S.C. §§ 1362(12), (14); 40 C.F.R. § 122.2 (definitions of "discharge" and "point source"). Federal court decisions considering broad applications of these terms include Trustees for Alaska v. Environmental Protection Agency, 749 F.2d 549 (9th Cir. 1984); Umatilla Water Quality Protective Ass'n, Inc. v. Smith Frozen Foods, 962 F. Supp. 1312 (D. Or. 1997); Beartooth Alliance v. Crown Butte Mines, 904 F. Supp. 1168 (D. Mont. 1995).

[156] *See generally* 40 C.F.R. § 122.2 (definition of "waters of the United States"); United States v. Riverside Bayview Homes, Inc., 474 U.S. 121; 106 S. Ct. 455; 88 L. Ed. 2d 419 (1985) (extending definition of "waters of the United States" to wetlands associated with navigable waters).

[157] *See, e.g.,* Umatilla Water Quality Protective Ass'n, Inc. v. Smith Frozen Foods, Inc., 962 F. Supp. 1312 (D. Or. 1997).

[158] *See, e.g.*, 40 C.F.R. pt. 144, setting forth the underground injection control program under the Safe Drinking Water Act, 42 U.S.C. § 300f *et seq*.

[159] 33 U.S.C. § 1342(c).

[160] 33 U.S.C. § 1342(b).

[161] The EPA Web site at http://www.epa.gov/owm/faq.htm identifies Alaska, Idaho, Arizona, New Mexico, Maine, New Hampshire, and Massachusetts as not having delegated status.

permit may also include water-quality-based limits. These limits address the discharge as a whole, rather than specific substances or characteristics. Water quality limits are set and compliance monitored using the whole effluent toxicity (WET) method, which is based on survival rates of certain small organisms (typically minnows and water fleas) when placed in a discharge sample from the permitted source.[162] The use of WET limits and testing is part of a growing regulatory trend towards a less pollutant-specific and more holistic approach to regulating discharges.[163]

2. NPDES Permitting for Stormwater Discharges

Section 402(p) of the CWA establishes a framework for addressing stormwater run-off discharges under the NPDES program and has potential applicability to the construction and operation of transportation facilities.[164] Stormwater permitting under the NPDES program has been implemented on a phased basis, beginning with Phase I regulations adopted in 1990.[165] These regulations established permit requirements for "stormwater discharge associated with industrial activity" and defined 11 categories of industrial activity that were subject to permitting. Six of the categories were defined by reference to Standard Industrial Classification (SIC) code, with the other five categories defined by narrative descriptions of the regulated activity.

Two categories in particular are most relevant to transportation agencies and projects.[166] Category viii of the definition encompasses facilities classified as SIC 40 (railroad transportation), SIC 41 (local passenger transportation), SIC 42 (trucking and warehousing), SIC 44 (water transportation), and SIC 45 (transportation by air). The definition indicates that subject facilities are those that have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations, and that only those portions of the facility that are involved with vehicle maintenance (rehabilitation, repairs, painting, fueling and lubrication); cleaning operations; or deicing operations are considered to be "associated with industrial activity" for purposes of this category.[167] Other industry categories may also be pertinent to a transportation agency, such as Category iii of the definition, covering the mineral industry, including crushed stone, sand and gravel operations, and Category ii, encompassing asphalt manufacture. Stormwater discharge associated with such industrial activity usually may be authorized under a Multi-Sector General Permit (MSGP) which sets forth industry specific requirements for best management practices pertaining to specific industrial activities and requires the submittal of a Notice of Intent to invoke the MSGP and the preparation of an SWPPP.[168] Uses that do not qualify for the MSGP need to receive an individual permit.

A third category of the Phase I requirements that frequently affects transportation projects is Category x, which encompasses clearing, grading, excavation, and other construction activity that disturbs 5 acres or more of total land area. EPA has developed a general permit for stormwater discharge associated with industrial activity that entails preparing a stormwater pollution prevention plan (SWPPP) and completing and filing a Notice of Intent Form with EPA with the permit effective 2 days after its postmark date.[169] States delegated to implement the NPDES stormwater program may have additional or different coverage requirements and limitations.[170]

Phase II stormwater requirements extend permit requirements to cover discharge associated with "small construction activity," defined as including sites from 1 to 5 acres in size. Construction sites may be excluded from the Phase II permit requirement based on a lack of potential impact from rainfall erosion, or where controls are not needed to preserve water quality. Conversely, construction sites smaller than 1 acre may be regulated based on a potential for contribution to a violation of water quality standards or potential for significant contribution of pollutants.[171] Discharges from construction sites associated with small construction activity require authorization by March 10, 2003.[172] EPA has indicated its intent to use general permits for all discharges newly regulated under Phase II to reduce the administrative burden associated with permitting, although individual permits may be used in specific circumstances.[173]

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[162] 40 C.F.R. pt. 136; *See* Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing, U.S. EPA, July 2000.

[163] *See, e.g.,* 64 Fed. Reg. 46012 (August 23, 1999), amending EPA water quality planning regulations at 40 C.F.R. pt. 130 to "revise, clarify, and strengthen" requirements for establishing Total Maximum Daily Loads (TMDL) to restore the quality of impaired waters.

[164] 33 U.S.C. § 1342(p).

[165] 55 Fed. Reg. 47990 (November 16, 1990).

[166] 40 C.F.R. § 122.26.

[167] 40 C.F.R. § 122.26(b)(14)(viii).

[168] 65 Fed. Reg. 64746 (October 30, 2000); 66 Fed Reg. 1675 (January 9, 2001) (corrections); 66 Fed Reg. 16233 (March 23, 2001) (corrections).

[169] 63 Fed. Reg. 7858 (February 17, 1998).

[170] Alaska, Arizona, District of Columbia, Florida, Idaho, Maine, Massachusetts, New Hampshire, and New Mexico do not have delegated authority to issue storm water NPDES permits. Colorado, Delaware, Oklahoma, Oregon, Texas, Vermont, and Washington are not delegated to issue permits for federal facilities. *NPDES Storm Water Program Contacts* at http://www.epa.gov/owm/sw/contacts/#MA.

[171] 40 CF.R. § 122.26(b)(15); § 122.26(c).; *See* OFFICE OF WATER, U.S. EPA, FACT SHEET 3.0, STORM WATER PHASE II FINAL RULE, SMALL CONSTRUCTION PROGRAM OVERVIEW (2000).

[172] 40 CF.R. § 122.26(e)(8).

[173] 64 Fed. Reg. 68722, 68737 (December 8, 1999).

Section 6.B addresses federal stormwater permitting in more detail.

C. CONSIDERATION OF CERCLA AND RCRA IN TRANSPORTATION PLANNING*

In acquiring property for right-of-way and other facilities, transportation agencies must expect to encounter contaminated soils or groundwater or other hazardous wastes. Because such encounters may impose liability upon the transportation agencies under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA)[174] and the Resource Conservation and Recovery Act (RCRA),[175] transportation officials should be prepared to anticipate and address the issues posed by such wastes. Many states have regulatory analogs to CERCLA and RCRA that may expand the bases for liability. This section briefly addresses the liability of transportation agencies for hazardous wastes, and methods transportation agencies may use to avoid or reduce the risk of incurring such liability.[176]

1. Basis For Liability—Generally

CERCLA, commonly referred to as "Superfund," was enacted by Congress in 1980 and amended several times since. Its impetus was the realization that inactive hazardous waste sites presented substantial potential risks to public health, as evidenced by the Love Canal tragedy. Existing laws did not adequately regulate such sites and require their remediation. CERCLA intended to distribute the clean-up costs among the parties who had generated such hazardous wastes.[177]

One critical component of CERCLA is the creation of the Hazardous Substances Superfund to be used by the EPA to remediate such sites. The Superfund was created by taxes imposed on the petroleum and chemical industries, as well as by an environmental tax on corporations.[178] It is from this fund that CERCLA earned its "Superfund" nickname. The Superfund is used to pay for remediation and enforcement costs expended by the EPA.[179] The money can be used only at sites listed on the National Priority List (NPL) of the sites scoring highest on a numerical hazard ranking system.[180] However, the Superfund may not be used to reimburse a federal agency for the remediation of federal facilities.[181]

Liability under CERCLA is imposed under two basic provisions. The first provision permits EPA and private parties to recover from responsible parties the costs of remediation and other environmental response activities such as investigation and enforcement.[182] A site need not be on the NPL for such expenditures to be recovered from responsible parties. The second provision permits the EPA to seek judicial orders requiring a responsible party to abate a condition that endangers public health, welfare, or the environment.[183] In addition, entities identified as potentially responsible parties (PRP) and charged with costs incurred in cleaning up a release or abating a threat of release may seek contribution from other PRPs.[184]

RCRA[185] is designed to provide "cradle-to-grave" control of hazardous wastes by imposing requirements on persons who transport, store, or dispose of hazardous wastes. The regulatory design encourages source reduction, high technology treatment, and secure disposal of hazardous wastes.[186] Unlike CERCLA, RCRA is focused on and applies mainly to active facilities, rather than the equally serious problem of abandoned and inactive sites.

Liability under RCRA may be imposed by EPA issuing administrative orders and civil and criminal penalties. Additionally, the citizen suit provision allows any person to bring a civil action against any alleged violator of RCRA requirements, or against the EPA administration for a failure to perform a nondiscretionary duty. RCRA is discussed in more detail in Section 6.C. The remainder of this section primarily addresses considerations under CERCLA.

a. Liability Imposed Retroactively [187]

In contrast to other statutes setting standards for the management and disposal of wastes and other pollutants, CERCLA deals explicitly with the subject of

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* This section updates, as appropriate, and relies in part upon DEBORAH L. CADE, TRANSPORTATION AGENCIES AS POTENTIALLY RESPONSIBLE PARTIES AT HAZARDOUS WASTE SITES (Nat'l Cooperative Highway Research Program Legal Research Digest No. 34, 1995); and G. MARIN COLE & CHRISTINE M. BOOKBANK, STRATEGIES TO MINIMIZE LIABILITY UNDER FEDERAL AND STATE ENVIRONMENTAL LAWS (Transp. Research Board Legal Research Digest No. 9, 1998).

[174] 42 U.S.C. § 9601 *et seq*.

[175] 42 U.S.C. § 6901 *et seq*.

[176] Section 4.A.4 *infra* addresses strategic consideration of potential liability concerns at the time of site acquisition, including the potential for using prospective purchaser agreements.

[177] *See* SUSAN M. COOKE, *THE LAW OF HAZARDOUS WASTE* (1987) at ch. 12 for a thorough discussion of CERCLA's legislative history and impetus. *See also* DEBORAH L. CADE, *TRANSPORTATION AGENCIES AS POTENTIALLY RESPONSIBLE PARTIES AT HAZARDOUS WASTE* SITES 5 (Nat'l Cooperative Highway Research Program Legal Research Digest No. 34, 1995).

[178] *See Cooke*, *supra* note 177, at § 12.02[3].

[179] 42 U.S.C. §§ 9611, 9612.

[180] 42 U.S.C. § 9605(a)(8)(B).

[181] 42 U.S.C. § 9611(e)(3).

[182] 42 U.S.C. § 9607.

[183] 42 U.S.C. § 9606.

[184] 42 U.S.C. § 9613(f)(1).

[185] 42 U.S.C. § 6901 *et seq*.

[186] EPA regulations implementing RCRA are codified at 40 C.F.R. pt. 260 *et seq*.

[187] This subsection and the subsections that follow introduce liability under CERCLA, a subject that is discussed in greater detail in § 5. Liability under RCRA is discussed in § 6.C *infra*.

cleaning up sites where wastes may have been released or disposed of long in the past. Congress sought to create not just standards defining liability for the future, but to ensure that parties linked to the waste sites left by industry in the past could be held financially responsible for their clean up. As a result, parties may be found liable for disposal actions they undertook long before CERCLA was enacted, and EPA takes an expansive view of defining and pursuing PRPs.[188]

b. Liability Imposed on Several Classes of Persons

A liable party under CERCLA may be viewed as any entity having involvement with the creation, handling, transporting, or disposing of hazardous substances at a site. Four categories of liable parties are named:

- Current owners and operators of contaminated sites;
- Former owners and operators who owned and/or operated the sites at the time when hazardous substances were disposed of at the site;
- Persons who arranged for disposal or treatment of hazardous substances; and
- Persons who transported for disposal or treatment hazardous substances.[189]

In CERCLA jargon, these categories are referred to, respectively, as owners and operators, former owners and operators, generators or arrangers, and transporters.

Transportation agencies may be, and often are, involved on both sides of CERCLA litigation and liability, as either parties from whom response costs are sought or as plaintiffs seeking recovery of their own response costs from other responsible parties. Transportation agencies are potentially exposed to CERCLA liability both in acquiring and operating contaminated right-of-way or other facilities, and in the disposition of wastes generated in transportation system operations, including the disposal of potentially contaminated excavation from right-of-way and facility construction.[190]

c. Liability is Strict, Joint, and Several

Liability under CERCLA is strict, joint, and several. CERCLA's strict liability scheme has been generally upheld by the courts. The basis for CERCLA's strict liability is found in its requirement that "liability" be imposed in accordance with the liability standard of Section 311 of the CWA. As courts have imposed strict liability under Section 311, they have willingly reached similar results under CERCLA.[191] Arguments that a party was not careless or negligent, or that its activities were consistent with standard industry practices, are no defense to liability.

Courts have imposed joint and several liability upon responsible parties even though CERCLA contains no statutory mandate concerning such liability. In fact, Congress deleted provisions imposing joint and several liability from CERCLA before its enactment. Nevertheless, courts have imposed joint and several liability whenever there is evidence of commingling of hazardous wastes.[192] The deletion of the joint and several liability provision from CERCLA has been interpreted as preventing automatic imposition of joint and several liability in all cases, but not precluding the imposition of such liability on a case-by-case basis.[193]

This concept of joint and several liability significantly strengthens EPA's ability to encourage settlement as opposed to protracted litigation. As a result of joint and several liability under CERCLA, the EPA may sue a few PRPs at a Superfund site and obtain judicial decisions that each party is responsible for the entire cost of remediation at the site. EPA's ability to hold a few PRPs responsible for an entire site burdens the PRPs not only with the entire remediation costs but also with the prospect of pursuing expensive contribution actions against the parties EPA chose not to sue. A transportation agency may be particularly vulnerable to this policy since it is easily found, and as a government agency may be construed as having financial resources not available to private parties.[194]

The standard of causation under CERCLA is minimal and liability is "very difficult to avoid for a party that is connected with a particular site or hazardous substance deposited there."[195] In cost recovery actions brought by a private party, the only causal link required is whether a release or a threatened release of hazardous substances has caused the suing party to incur response costs.[196] At multi-party sites, this minimal requirement has been interpreted by some courts in such a way that it does not matter whether a defendant's own waste was released or threatened to have been released as long as some hazardous substance at the site has been discharged.[197]

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[188] G. MARIN COLE & CHRISTINE M. BROOKBANK, STRATEGIES TO MINIMIZE LIABILITY UNDER FEDERAL AND STATE ENVIRONMENTAL LAWS 3 (Transp. Research Board Legal Research Digest No. 9, 1998).

[189] 42 U.S.C. § 9607.

[190] *See* COLE & BROOKBANK, *supra* note 188, at 4.

[191] *See, e.g.,* United States v. Chem Dyne Corp., 572 F. Supp. 802 (S.D. Ohio 1983); New York v. Shore Realty Corp., 759 F.2d 1032 (2d Cir. 1985).

[192] *See, e.g.,* O'Neil v. Picillo, 682 F. Supp. 706 (D.R.I. 1988).

[193] United States v. Chem-Dyne Corp., 572 F. Supp. 802 (S.D. Ohio 1993).

[194] *See* CADE, *supra* note 177, at 6.

[195] COOKE, *supra* note 177, at § 13.01[5][c][iii].

[196] *See* Dedham Water Co. v. Cumberland Farms, Inc., 689 F. Supp. 1223, 1224 (D. Mass. 1988), *reversed on other grounds*, 889 F.2d 1146, 1151–54 (1st Cir. 1989).

[197] *See, e.g.,* United States v. S.C. Recycling & Disposal, Inc., 653 F. Supp. 984, 992 (D.S.C. 1984).

d. Limited Statutory Defenses

CERCLA contains limited statutory defenses for a PRP. These defenses include showing that the release of a hazardous substance was caused by an act of God, an act of war, or solely by the act of an unrelated third party.[198] Each defense is narrowly written and has been narrowly construed by the courts.

There is little case law concerning the act of God and act of war defense. For the act of God defense, exceptional events, rather than mere natural occurrences, are required.[199] For the act of war defense, it remains unclear whether the release or threatened release must occur as a result of actual combat, or whether the defense extends to hazardous substances from increased production demands resulting from war.[200]

The third party defense is available only when the third party alone caused the release or threatened release. Any involvement, however slight, by the PRP asserting the defense, in contributing to the release or threatened release, renders the defense unavailable.[201] For transportation agencies the third party defense may succeed where the agency acquires property that was contaminated by a third party prior to the agency acquisition. The agency must show that the contamination was caused by a third party with which no "contractual relationship" existed. While the transfer of property would ordinarily entail such a contractual relationship, the term "contractual relationship" has been defined in the statute to exclude the purchase or condemnation of land through the use of eminent domain authority.[202] This "condemnation defense" is potentially a valuable one for a transportation agency.[203]

e. Liability Imposed for Response Costs Consistent with the National Contingency Plan (NCP)

The NCP sets forth the procedures that the EPA and private parties must follow in selecting and conducting CERCLA response actions. The statutory requirement is that response costs incurred by private parties be "consistent" with the NCP, and that response costs incurred by the EPA be "not inconsistent" with the NCP.[204] Since its first promulgation in 1973, the NCP has been updated several times. The current version of the NCP was promulgated in 1990 and it is more comprehensive than any of its predecessors.[205]

2. Evaluating Potential Environmental Risk in Transportation Planning[206]

The evaluation of potential contamination should be completed as early as possible in the transportation planning process. Early evaluation permits the possibility of changing the design to avoid badly contaminated property or to mitigate the effects of its use for transportation purposes. Ideally, evaluation should occur no later than during preparation of the EIS or other environmental documents that precede final design. Properties to be acquired in fee for right-of-way and other facilities, as well as properties in which lesser interests will be acquired, such as slope easements or temporary easements, should all be evaluated for contamination issues.[207]

EPA maintains a list of potentially contaminated properties called the CERCLA Information System or CERCLIS. State and local environmental agencies may maintain similar lists of potentially contaminated properties and release incidents. These lists should be examined to determine whether properties to use for highway construction have been identified as potentially contaminated. Depending upon the project purposes, it may not be possible or prudent to attempt to avoid contaminated property altogether. Indeed, many jurisdictions encourage "brownfields" redevelopment of industrial areas for transportation and other purposes in preference to "greenfields" development of undeveloped areas.

If environmental risk is not evaluated early in the planning process, and contamination issues are later discovered, substantial expense and delay in the project may result. Fully addressing these issues at an early stage may increase the chance of completing a project on time and within budget.

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[198] 42 U.S.C. § 9607(b).

[199] United States v. Stringfellow, 661 F. Supp. 1053, 1061 (C.D. Cal. 1987).

[200] *See* United States v. Shell Oil Co., 841 F. Supp. 962, 971–72 (C.D. Cal. 1993) (refusing to extend "act of war" defense to production of petroleum for government contracts under wartime controls).

[201] *See, e.g.,* Westfarm Assoc. v. Washington Suburban Sanitary Comm'n, 66 F.3d 669, 682–83 (4th Cir. 1995) *cert. denied,*. 517 U.S. 1103 (1996).

[202] 42 U.S.C. § 9601(35)(A)(iii).

[203] *See* CADE, *supra* note 177, at 6–7.

[204] 42 U.S.C. § 9607(a)(4)(A), (B).

[205] The NCP is codified at 40 C.F.R. pt. 300 (July 1, 2001).

[206] This discussion is substantially based on the thorough and thoughtful treatment of the subject in CADE, *supra* note 177, at 13–14.

[207] Acquisition of an interest less than fee ownership may be a way to avoid "owner" liability. *See* § 4.C.2.b. and CADE, *supra* note 177, at 13.

a. Perform Evaluation of Potential Contamination of a Site

i. Initial "Phase 1" Investigation.—The initial evaluation of the environmental status of a property is called a "phase I" investigation. A phase I involves a review of all available records and a visual and olfactory examination of the property in issue. A site examination for a phase I investigation is noninvasive and does not involve sampling soil or ground water. The examiner looks for oil or chemical stains on the soil, discolored surface water, petroleum or chemical odors, drums, tanks, or pipelines as evidence of potential contamination. A phase I investigation is necessary because a site with a current innocuous use could historically have been, for example, the site of an industry involving solvents and other degreasers, underground storage tanks, or another use that frequently correlates with site contamination.

Record review may be quite extensive and involve records on the local, as well as the state, level. The state environmental agency as well as the state health department are typically good sources for information. Local health departments, the local fire department, local newspapers, or interviews of current and prior owners are also sources of information as to site use and significant events that occurred at the site. Chain of title reports will also provide information as to former uses of the site. Sanborn insurance maps found in local libraries and aerial photographs may also be reviewed.[208]

Usually the transportation agency will not have acquired the site at the time of a phase I investigation. The transportation agency may therefore need to obtain permission from the current owner to access the site. The transportation agency should consider whether it has statutory authority to access private property for the purpose of performing surveys and appraisals or whether contractual agreement is required. Statutory authority rarely addresses environmental investigations explicitly, but condemnation authority may be sufficiently broad to allow for a visual and olfactory inspection of the site.[209]

ii. "Phase II" Investigation.—Where potential contamination is disclosed by a phase I investigation, a transportation agency still interested in acquiring the site should proceed to a phase II study. A phase II investigation may involve taking soil samples and surface water samples, installing monitoring wells for ground water samples, and analyzing such samples for the presence of contaminants of interest.

As is the case for a phase I investigation, the agency should seek the voluntary consent of the property owner to access for the phase II study. If only a portion of the property is needed by the transportation agency and the owner intends to sell the remainder of his property, it may be to the owner's advantage to have the investigation completed at the agency's expense. Some owners may agree to temporary access for a fee that allows the environmental investigation to be completed. If the owner will not consent to access for a phase II investigation, the agency has two potential avenues for obtaining access. First, as mentioned with respect to a phase I investigation, an agency often has statutory authority to enter private property for purposes of performing surveys and appraisals. This statutory authority may be broad enough to encompass soil and ground water sampling. To learn the scope of this authority, the particular statute must be examined. Second, the transportation agency may invoke its eminent domain powers to condemn a limited interest in land. When a limited interest is condemned, such as a temporary easement, as opposed to a full fee interest, the phase II may be conducted without the agency becoming exposed to responsibility for site remediation.[210] The owner's refusal to consent to access must be well documented to support a petition to condemn and a court order of access. Contemporaneous notes or diaries of an owner's refusal to permit access should be kept, because they may be used to support the petition for condemnation of a limited interest.[211]

b. Avoidance of Contaminated Property—Realignment of a Highway Project

The best means of addressing the issues posed by badly contaminated property may simply be to avoid it by design changes. If the potential for environmental contamination is evaluated early in the planning process, and there exist alternatives meeting project goals that pose less environmental concern, realignment of a right-of-way or relocation of a transportation facility may be possible.

If it is not possible to avoid the contaminated property altogether, a transportation agency may consider acquiring an interest in the property short of fee ownership. Acquisition of an easement across a contaminated parcel or acquisition of an airspace easement, rather than a fee interest, may limit an agency's exposure to liability. Although acquiring interests of this type is unusual, at least one court has held that the holder of an easement across a contaminated site was not an "owner" under CERCLA, and was not liable where the holder's use was not the cause of contamination.[212]

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[208] The American Society of Testing and Materials (ASTM) has established a "Standard Practice" for a Phase 1 investigation, published as E1527-00, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process,* ASTM, 2000.

[209] *See, e.g.,* WASH. REV. CODE § 47.01.170.

[210] *But see* United States v. CDMG Realty Co., 96 F.3d 706 (3d Cir., 1996) (CERCLA liability may ensue where a site investigation is conducted negligently and contamination results or is dispersed).

[211] CADE, *supra* note 177, at 13.

[212] Long Beach Unified School District v. Dorothy B. Goodwin Cal. Living Trust, 32 F.3d 1364 (9th Cir. 1994).

D. OTHER ENVIRONMENTAL LAWS APPLICABLE TO TRANSPORTATION PROJECTS*

1. Endangered Species Act (ESA) and Other Fish and Wildlife Law

Concern for preserving the habitat of threatened and endangered plant and animal species has become a paramount planning consideration in many parts of the country. Endangered species issues can represent a significant constraint on both public and private development projects in areas where human occupancy potentially would threaten designated species' survival. Such issues manifest themselves in a variety of federal regulatory programs, through the requirements for consultation with the FWS and NMFS under the ESA in connection with federal actions.

a. Federal ESA[213]

The first federal ESA, called the Endangered Species Preservation Act, was passed in 1966. This law allowed the listing of only native animal species as endangered and provided limited means for the protection of species so listed. This Act was amended by the ESA Act of 1973. Principal provisions of the ESA of 1973 included:

1. U.S. and foreign species lists were combined, with uniform provisions applied to both.

2. Categories of "endangered" and "threatened" were defined.

3. Plants and all classes of invertebrates were eligible for protection.

4. All federal agencies were required to undertake programs for the conservation of endangered and threatened species, and were prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its "critical habitat."

5. Broad "taking" prohibitions were applied to all endangered animal species and could be applied to threatened animals by special regulation.

6. Matching federal funds were made available for states with cooperative agreements.

7. Authority was given to acquire land to protect listed animals and plants.[214]

Significant amendments to the Act were enacted in 1978, 1982, and 1988; however, the overall framework of the ESA has remained essentially unchanged.[215] Section 4 requires the identification and listing of at risk species and their critical habitat.[216] Section 7, which is most relevant to transportation projects, prohibits agency actions from jeopardizing listed species or adversely modifying designated critical habitat and requires agencies to undertake affirmative protection and restoration programs to conserve listed species.[217] Section 9 prohibits all persons, including all federal, state and local governments, from "taking" listed species of fish and wildlife.[218]

i. Administration of the ESA.—The FWS in the Department of the Interior and the NMFS in the Department of Commerce share responsibility for administration of the ESA. Generally, NMFS deals with those species occurring in marine environments and anadromous fish, while the FWS is responsible for territorial and freshwater species and migratory birds. Additionally, the Animal and Plant Health Inspection Service of the Department of Agriculture oversees importation and exportation of listed terrestrial plants.

ii. Endangered Species Listing Process.—The procedures and substantive criteria for the listing of threatened and endangered species are established in Section 4 of the ESA. A species is considered to be endangered if it is in "danger of extinction within the foreseeable future throughout all or a significant portion of its range."[219] A "threatened" classification is provided to those animals and plants "likely to become endangered within the foreseeable future throughout all or a significant portion of their ranges."[220] A species includes any species or subspecies of fish, wildlife, or plant; any variety of plant; and any distinct population segment of any invertebrate species that interbreeds when mature.[221] The Act allows the Secretaries of the Interior and Commerce to list "distinct population segments" of species or "distinct vertebrate populations," even if the species itself is abundant in other ranges, but does not allow listing of distinct population segments of subspecies.[222] Upon listing, provisions of the ESA require designation of critical habitat, agency consultation to avoid jeopardy, limitations on takings, and preparation of habitat conservation and recovery plans.[223]

Species are selected for listing by the FWS or NMFS as threatened or endangered from a list of candidates species. To become a candidate species, the FWS or NMFS relies on petitions, wildlife surveys, and other field studies and reports. The public is offered an opportunity to comment and the proposed listing is

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* This section updates, as appropriate, and relies in part upon MICHAEL C. BLUMM, HIGHWAYS AND THE ENVIRONMENT: RESOURCE PROTECTION AND THE FEDERAL HIGHWAY PROGRAM (Legal Research Digest No. 29, Nat'l Coop. Highway Research Program, 1994).

[213] Pub. L. No. 93–205 (Dec. 28, 1973), 87 Stat. 884 as amended, 16 U.S.C. 1531 *et. seq*.

[214] U.S. FWS, A SUMMARY OF ESA AND IMPLEMENTATION ACTIVITIES (1996) ("FWSESA Summary"), available at http://endangered.fws.gov/esasum.html.

[215] *Id*.

[216] 16 U.S.C. § 1533.

[217] 16 U.S.C. § 1536.

[218] 16 U.S.C. § 1538(1)(B).

[219] 16 U.S.C. § 1532(6).

[220] 16 U.S.C. § 1532(20).

[221] 16 U.S.C. § 1532(16).

[222] Southwest Center for Biological Diversity v. Babbitt, 980 F. Supp. 1080 (D. Ariz. 1997).

[223] 16 U.S.C. § 1533, 1536, 1538, 1539.

either finalized or withdrawn. Anyone may petition the FWS or NMFS to have a species listed, reclassified as endangered or threatened, or removed from the list. Within 90 days of receiving a petition, the FWS or NMFS must make findings as to whether the petition presents substantial biological data to indicate that the petitioned action may be warranted.[224] Within 1 year of receipt of a petition, the FWS or NMFS issues a finding stating whether the listing is either warranted or not warranted. A finding of "warranted" requires an immediate (i.e., less than 30 days) proposed listing within the *Federal Register*. The FWS or NMFS can also make a finding of "warranted but precluded," which results in a delayed proposed listing.[225]

In general, species to be listed in a given year are selected from among those recognized as candidates in accordance with the FWS or NMFS listing priority system. Under the priority system, species facing the greatest threat are assigned the highest priority. Lists are made "solely on the basis of the best scientific and commercial data available," and economic costs are not a permissible basis for refusing to list a species.[226] A species is only determined to be an endangered or a threatened species because of any one or more of the following factors:

1. The present or threatened destruction, modification, or curtailment of its habitat or range.
2. Overutilization for commercial, recreational, scientific, or education purposes.
3. Disease or predation.
4. The inadequacy of existing regulatory mechanisms.
5. Other natural or man-made factors affecting its continued existence.[227]

iii. Designating Critical Habitat—In addition to listing of species pursuant to Section 4(b)(2) of the ESA, the FWS or NMFS may also designate critical habitat for a threatened or endangered species. Critical habitat means:

1. The specific areas within the geographical area occupied by the species at the time it is listed, on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection.
2. The specific areas outside the geographic area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.[228]

Except in those circumstances determined by the FWS or NMFS, critical habitat generally does not include the entire geographical area occupied by the threatened or endangered species.[229]

In contrast to species listing decisions, the ESA requires that the FWS or NMFS designate critical habitat based not only on the best scientific data available but also on economic and other relevant impacts.[230] If the FWS or NMFS determines that designation of an area as critical habitat is not necessary to prevent extinction and that the benefits of omitting the area outweigh the benefits of including it as part of the critical habitat, areas otherwise meeting the basic definition of critical habitat may be excluded from this status.[231] In determining whether designation of critical habitat would increase the likelihood of taking of threatened or endangered species, the FWS must compare the risks of such designation to the benefits considering all relevant factors.[232]

The ESA prohibits federal actions that modify or destroy a species' habitat.[233] Current regulations limit the scope of this prohibition by providing that destruction or adverse modification of critical habitat occurs only when the alteration "appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species."[234] Even under these provisions, however, the courts have rarely approved intrusions by federal agencies into designated critical habitat.[235]

The question of whether NEPA applies to designations of critical habitat remains unclear. In 1995, the Ninth Circuit first ruled on this issue in *Douglas v. Babbitt*.[236] The court held that NEPA did not apply to critical habitat area designation based on a three part analysis in which the court found that: (1) the procedures for designation of critical habitat had displaced the NEPA requirement, (2) an EIS is not required for proposed federal actions that do not alter the natural physical environment, and (3) ESA furthers the goals of NEPA without requiring an EIS.[237] In 1996, less than a year after the Ninth Circuit's ruling in *Douglas*, the Tenth Circuit, in *Board of Commissioners of Catron County v. FWS*, ruled that NEPA did apply to

[224] 16 U.S.C. § 1533(b)(3)(A).

[225] 16 U.S.C. § 1533(b)(3)(B).

[226] 16 U.S.C. § 1533(b)(1)(A).

[227] 16 U.S.C. § 1533(a)(1)(A)–(E).

[228] 16 U.S.C. § 1532(5)(A) (This is a paraphrase of the Statutory provision).

[229] 16 U.S.C. § 1532(5)(C).

[230] 16 U.S.C. § 1533(b)(2).

[231] *Id*.

[232] Conservation Council of Haw. v. Babbitt, 2 F. Supp. 2d 1280 (D. Haw. 1998).

[233] 16 U.S.C. § 1536(a)(2).

[234] 50 C.F.R. § 402.02 (Oct. 1, 2001).

[235] *See* Oliver A. Houck, *The Endangered Species Act and Its Implementation by the U.S. Departments of Interior and Commerce,* 64 COLO. L. REV. 278, 308–09 (1993), *citing* National Wildlife Fed'n v. Coleman, 529 F.2d 359 (5th Cir. 1976) (Highway interchange project enjoined on grounds that it would modify critical habitat of endangered sandhill crane).

[236] Douglas v. Babbitt, 48 F.3d 1495, 1502 (9th Cir. 1995), *cert. denied*, 516 U.S. 1042 (1996).

[237] *Id.* at 1502–06.

critical habitat area designations.[238] Although the Tenth Circuit conceded that ESA requirements partially fulfill NEPA requirements, the court held that partial fulfillment is not enough to justify an exemption from NEPA.[239] Thus, until Congress amends ESA to explicitly address the issue, or the Supreme Court rules on the issue, the determination of whether NEPA applies to the designation of critical area habitat may vary by federal circuit.

iv. ESA Restrictions and Prohibitions.—Section 9 of the Endangered Species Act applies once a species is listed. According to the provisions of Section 9, it is unlawful for any person, defined broadly to include federal and state agencies,[240] to:

> (A) import any such species into or export any such species from the United States, (B) take any such species within the United States or the territorial sea of the United States, (C) take any species upon the high seas, (D) possess, sell, deliver, carry, transport, or ship, by any means, whatsoever, any such species…, (E) deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of a commercial activity, any such species, (F) sell or offer for sale in interstate or foreign commerce any such species or (G) violate any regulation pertaining to such species or to any threatened species of fish or wildlife listed….[241]

The prohibitions most pertinent to transportation agencies are those forbidding the "taking" of listed species.

v. The Taking Prohibition.—The Act defines "take" to include "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct."[242] The term "harass" has been defined by regulation as "an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include but are not limited to, breeding, feeding or sheltering."[243] "Harm" means "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."[244] Thus, the potential for takings claims arises in connection with actions related to the construction of highways or other transportation projects that may destroy wildlife habitat and result in the impairment of "normal behavioral patterns."

vi. Judicial Decisions on the Definition and Interpretation of "Taking" of an Endangered Species.—*Babbit v. Sweet Home Chapter of Communities for Greater Oregon* [245] is the definitive case to date regarding the definition of take. In *Sweet Ho*me, the U.S. Supreme Court upheld the Secretary of the Interior's interpretation of the term "take" to include significant habitat degradation. According to the Syllabus of the Supreme Court's opinion:

> The [FWS] reasonably construed Congress' intent when [it] defined 'harm' to include habitat modification. (a) The Act provides three reasons for preferring the [FWS's] interpretation. First, the ordinary meaning of 'harm' naturally encompasses habitat modification that results in actual injury or death to members of an endangered or threatened species. Unless 'harm' encompasses indirect as well as direct injuries, the word has no meaning that does not duplicate that of other words that Section 3 uses to define 'take.' Second, the Endangered Species Act broad purpose of providing comprehensive protection for endangered and threatened species supports the reasonableness of the [FWS's] definition. Respondents advance strong arguments that activities causing minimal or unforeseeable harm will not violate the Act as construed in the regulation, but their facial challenge would require that the [FWS's] understanding of harm be invalidated in every circumstance. Third, the fact that Congress in 1982 authorized the [FWS] to issue permits for takings that [Section 9] would otherwise prohibit, 'if such taking is incidental to, and not for the purpose of, the carrying out of an otherwise lawful activity,' [Section 10(a)(1)(B)], strongly suggests that Congress understood [Section 9] to prohibit indirect as well as deliberate takings. No one could seriously request an 'incidental' take permit to avert Section 9 liability for direct, deliberate action against a member of an endangered or threatened species….[246]

This broad definition of the term "take," to include activities that may result in the incidental and indirect taking of endangered and threatened species through habitat modification, has major implications for highway and other transportation projects. For example, in *Strahan v. Coxe*, the Court observed that "take" under the Act was to be construed to include every conceivable way in which a person can take or attempt to take any fish or wildlife.[247] In *Marbled Murrelet v. Babbitt,*[248] a habitat modification that significantly impaired the breeding and sheltering of a protected species was found to constitute harm under the Act.

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[238] Catron County Board of Comm'rs v. FWS, 75 F.3d 1429 (10th Cir. 1996).

[239] *Id.* at 1437.

[240] 16 U.S.C. § 1532(13). *See also* Tenn. Valley Auth. v. Hill, 437 U.S. 153, 184 (1978).

[241] 16 U.S.C. §§ 1538 (a)(1)(A)–(G).

[242] 16 U.S.C. § 1532(19).

[243] 50 C.F.R. § 17.3.

[244] *Id*.

[245] Babbit v. Sweet Home Chapter of Communities for Greater Or., 515 U.S. 687 (1995).

[246] *See* syllabus, 515 U.S. at 687.

[247] Strahan v. Coxe, 127 F.3d 155, 162 (1st Cir. 1997), *cert. denied*, 525 U.S. 830 (1998). *See also* United States v. Town of Plymouth, 6 F. Supp. 2d 81 (D. Mass. 1998).

[248] Marbled Murrelet v. Babbitt, 83 F.3d 1060 (9th Cir. 1996), *amended on denial of rehearing, cert. denied*, 117 S. Ct. 942.

vii. ESA and Federal Actions.—All federal agencies must consult with either the Secretary of the Interior or the Secretary of Commerce when any agency action or activity is permitted, funded, carried out, or conducted that may affect a listed species or designated critical habitat, or is likely to jeopardize proposed species or adversely modify proposed critical habitat.[249]

Section 7 limits federal agencies in two respects. First, Section 7(a)(2) requires interagency consultation with the FWS or NMFS to ensure that agency action "is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat."[250] Second, federal agencies must, pursuant to Section 7(a)(1) and in consultation with the FWS or NMFS, "utilize their authorities in furtherance of the purposes of the Endangered Species Act by carrying out programs for the conservation of endangered species and threatened species."[251]

viii. Federal Agency Actions Subject to Consultation.—The consultation requirements of Section 7(a)(2) explicitly includes all federal agencies and any action authorized, funded, or carried out by a federal agency. The FWS and NMFS regulations define "action" to include, "(1) activities intended to conserve listed species or their habitat; (2) promulgation of regulations; (3) granting of licenses, contracts, leases, easements, rights-of-way, permits, or grants-in-aid; or (4) actions directly or indirectly causing modification to the land, water, or air."[252] Moreover, Section 7 also applies to nonfederal activities that require federal agency authorization or assistance, such as a Section 404 individual permit or funding support for a highway or other transportation improvement.

Agencies considering actions subject to Section 7 must request from the FWS or NMFS information relevant to the presence of listed or proposed species in the action area under consideration, and if such species are or may be present, the development agency is required to conduct and prepare a biological assessment to identify species likely to be affected by the federal action.[253]

The FWS and the NMFS use four main types of consultations.[254] "Early consultations" are held before a federal permit application is actually filed with a Federal agency to determine at an early planning stage what effect a proposed action may have on a species or critical habitat and what modifications may be needed to remove or minimize those effects. Early consultations must be completed within 90 days of initiation and delivered within 45 days of completion, unless an extension is mutually agreed to by the agency and applicants.[255]

"Informal consultation" is optional and contains no disclosure requirements. For these reasons, it is the preferred method of communication. Moreover, nearly 90 percent of all consultations or communications are disposed of routinely and informally, and without controversy or public awareness.[256] Informal consultation may be requested by the federal agency, a federal permit applicant, or a designated nonfederal representative. Discussions during this phase may include whether and which species may occur in the proposed action area and what effect the action may have on listed species or critical habitats. Informal consultations often conclude with the FWS's or NMFS's written concurrence with the federal agency's determination that its action is not likely to adversely affect listed species or their critical habitat.

"Formal consultation" is conducted when the federal agency determines that its action is likely to adversely affect a listed species or its critical habitat and submits a written request to initiate formal consultation.[257] These consultations follow statutory and regulatory time frames and procedures and result in a written "biological opinion" (different from biological assessments, see discussion below) of whether the proposed action is likely to result in jeopardy to a listed species or adverse modification of designated critical habitat. An incidental take statement is also provided. Formal consultations must be completed within 90 days of initiation unless an extension is mutually agreed to by the agency and applicants.

During the process, the consulting agency reviews all relevant information; evaluates the current status of the listed species or critical habitat; examines the effects of the proposed federal action, including cumulative effects on both listed species and critical habitat; and formulates a biological opinion.[258] The opinion includes a summary of the information forming the basis of the opinion, a detailed discussion of the action's effects on the species or its critical habitat, and its opinion as to whether the action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of its critical habitat.[259] Thus, the consulting agency's biological opinion presents one of two opinions: (1) a "no jeopardy" or "no adverse modification" opinion that

[249] 16 U.S.C. § 1536(a)(2).

[250] *Id.*

[251] 16 U.S.C. § 1536(a)(1).

[252] 50 C.F.R. § 402.2. *See also* U.S. FISH AND WILDLIFE SERVICE & NATIONAL MARINE FISHERIES SERVICE, ENDANGERED SPECIES CONSULTATION HANDBOOK (1998) (hereinafter cited as "ESA Consultation Handbook").

[253] 16 U.S.C. § 1536(c).

[254] In addition, in the event of a natural disaster or other calamity, regulations implementing the ESA contemplate "emergency consultation." *See* 50 C.F.R. § 402.05.

[255] *See* 50 C.F.R. § 402.11. The early consultation process is discussed in ch. 7 of the ESA Consultation Handbook.

[256] BLUMM at 23. *See* 50 C.F.R. § 402.13. The informal consultation process is discussed in ch. 3 of the ESA Consultation Handbook (Available at the FWS Web site).

[257] *See* 50 C.F.R. § 402.14. The formal consultation process is discussed in ch. 4 of the ESA Consultation Handbook.

[258] 50 C.F.R. §§ 402.14(g)(1)–(8)

[259] 50 C.F.R. § 402.14(h)(1)–(3).

states that the proposed action is not likely to jeopardize the continued habitat existence of listed species and will not result in the destruction or adverse modification of critical habitat, or (2) a statement that the proposed action will result in jeopardy or adverse modification.[260]

If the consulting agency opines that the action will result in jeopardy, the opinion must recommend alternative or other measures to minimize or avoid adverse impacts.[261] The development agency is authorized to decide if and how to proceed in the face of this advice or opinion by the consulting agency. A departure from the consulting agency's opinion and recommendations does not violate the Act, if the "agency takes alternative, reasonably adequate steps to ensure the continued existence of listed species."[262] In addition, agencies are not necessarily required to choose the first proposed reasonable and prudent alternative; rather, they need only have adopted a final reasonable and prudent alternative that complies with the "jeopardy" standard and that can be implemented.[263]

A fourth type of interagency consultation is the "conference" required in the event that a proposed agency action is likely to jeopardize proposed species or adversely impact proposed critical habitat. Such a conference addresses the impact of the action on such species or habitat and develops recommendations to minimize or avoid the adverse impacts. Such a conference may be conducted under the procedures for a formal consultation.[264]

Identification of and agreement on the "action area" are important and necessary outcomes of the consultation process. Determining the boundaries of the action area is first the responsibility of the federal agency proposing the action. The accurate identification of the action area is critical both for protection of species and for compliance with the ESA. An action area contains all areas that may be affected directly or indirectly by the federal action and not merely the immediate area involved in the action. The agency proposing the action must also take into account the cumulative effects of future state or private actions that are reasonably certain to occur within the action area.[265] If the consulting agency disagrees with the scope or definition of the action area, the two agencies will attempt to negotiate a resolution, but "the consulting agency cannot require the development agency to enter into consultation if the development agency refuses to do so on the basis of the limited scope of the action area."[266]

ix. Biological Assessment.—If a sponsoring federal agency's action is in an area of a listed species, a biological assessment may be required. The development agency must prepare a biological assessment if listed species are likely to be present in an action area and a federal "major construction activity" is proposed.[267] Major construction activity is defined in the regulations as "a construction project (or other undertaking having similar physical impacts), which is a major federal action significantly affecting the quality of the human environment…."[268] This definition implicitly contemplates coordination of such assessment with the agency's NEPA obligations.[269]

A biological assessment is "the information prepared by or under the direction of the [development agency] concerning listed and proposed species and designated and proposed critical habitat that may be present in the action area, and an evaluation [of] the potential effects on such species and habitat."[270] Its purpose is to assist agencies in evaluating the impact of the proposed project on endangered species and their critical habitat, and to determine whether formal consultation or a conference is required.[271] Although the development agency has considerable discretion as to the issues or information to discuss in the biological assessment, it must include: (1) results of any onsite inspections; (2) views of recognized experts; (3) literature reviews; and (4) analysis of the effects of the proposed action, and alternative courses of action.[272]

When a development agency finds potential jeopardy to endangered species or critical habitat, it must either: (1) contact the consulting agency to inquire whether any listed or proposed species or critical habitat may be present within the action area, or (2) provide the consulting agency with written notification of any listed or proposed species or critical habitat that it believes are present withom the action area.[273] The consulting agency must provide a species list where requested within 30 days or concur in or revise the species list provided by the development agency.[274] During this process, the development agency is prohibited from making any irreversible or irretrievable commitment of resources.[275]

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[260] *See* ESA Consultation Handbook, *supra* note 252, at 4-2.

[261] 16 U.S.C. § 1536(b)(3)(A) and 50 C.F.R. § 402.14(h)(2)(3).

[262] Tribal Village of Akutan v. Hodel, 859 F.2d 651, 660 (9th Cir. 1988), *cert. denied.* 493 U.S. 873 (1989).

[263] Southwest Center for Biological Diversity v. United States Bureau of Reclamation, 143 F.3d 515 (9th Cir. 1998).

[264] 50 C.F.R. § 402.02 (definition of "conference") and 50 C.F.R. § 402.10.

[265] 50 C.F.R. § 402.02; *see* BLUMM, *supra* note 256, at 23.

[266] *See* BLUMM, *supra* note 256, at 23.

[267] 16 U.S.C. § 1536(c).

[268] 50 C.F.R. § 402.02.

[269] *See* BLUMM, *supra* note 256, at 23.

[270] 50 C.F.R. § 402.02.

[271] 50 C.F.R. §§ 402.02, 402.12; *see* BLUMM at 24.

[272] 50 C.F.R. § 402.12(f).

[273] 50 C.F.R. § 402.12(c).

[274] 50 C.F.R. § 402.12(d); *see* BLUMM, *supra* note 256, at 24.

[275] 16 U.S.C. § 1536(d).

x. The Exemption Clause.—In addition to the formal consultation process, Section 7 of the Act establishes a process to exempt a federal agency from complying with the Act. Section 7(e)(1) of the Act establishes an Endangered Species Committee to review applications for exemptions from agency obligations. The seven member committee includes: the Secretaries of Agriculture, Army, and the Interior; the Chairperson of the Council of Economic Advisors; the Administrators of the EPA and the National Oceanic and Atmospheric Administration (NOAA); and a Presidential appointment to represent each of the states affected by a particular exemption application. The Secretary of the Interior chairs the Committee.[276]

A federal agency, state governor, or permit or license applicant may apply for an exemption from the Act if, after consultation, the Secretary's opinion indicates that an agency action would violate the Act. Exemption applications must include descriptions of the consultation process between the sponsoring or development agency and the Secretary, and why the agency action cannot be modified or altered. They must be submitted no more than 90 days after completion of consultation or no more than 90 days after the agency takes final action on the permit or license application. The governor of the affected state is to be notified, and notice of the exemption application will be published in the *Federal Register*.[277] As of 1998, there had been only seven requests for exemption under this provision—two were granted, two were denied, and three were withdrawn before agency action.[278]

xi. Section 10 Incidental Taking Permit and Habitat Conservation Planning for Nonfederal Projects.—Section 10 of the ESA was passed in 1988 as a means for allowing nonfederal projects that might result in the "taking" of listed species to be permitted to proceed under carefully prescribed conditions.[279] Incidental take permits "also provide a means to balance, or integrate, orderly economic development with endangered species conservation."[280] However "the purpose of the habitat conservation process and subsequent issuance of incidental take permits is to authorize the incidental take of a listed species, not to authorize the underlying activities that result in take."[281]

An application for an incidental take permit is subject to a number of requirements, most particularly that a Habitat Conservation Plan (HCP) be prepared by the applicant and approved by FWS or NMFS. An HCP is supposed to "ensure that there is adequate minimizing and mitigating of the effects of the authorized incidental take."[282] An HCP must address a variety of factors, including the impact likely to result from the proposed taking; measures the applicant will undertake to monitor, minimize, and mitigate such impacts; the funding that will be made available to undertake such measures and the procedures to deal with unforeseen circumstances; alternatives that would not result in a take and the reasons why such alternatives are not being pursued; and other measures that the agencies may require as necessary or appropriate, such as an implementing agreement to outline the roles and responsibilities of involved parties and terms for monitoring the plan's effectiveness.[283] HCPs frequently address the protection and conservation of unlisted wildlife species. This is encouraged by FWS because it results in an ecosystem-based approach to conservation planning, may protect species candidate species prior to listing and preclude the need to list them as endangered, and can simplify the permit amendment process if an unlisted species addressed in the HCP is later listed.[284]

HCPs can cover an area as small as a few acres or as large as hundreds of thousands of acres. As of September 1998, there were approximately 200 HCPs in various stages of development, including one covering over a million acres, four more in excess of half a million acres, and 10 covering between 100,000 and 500,000 acres. Earlier HCPs, by contrast, were generally under 1,000 acres in size.[285] As of February 2001, 341 HCPs had been approved, covering approximately 30 million acres in total.[286] Given these statistics, it is obvious that HCPs, which may limit or set conditions on development of all types, can have a significant impact on transportation projects and transportation planning in a covered area, and that the potential for encountering such a plan is increasing. While the FWS solicits comment on the HCP and any accompanying NEPA documentation after an application for HCP approval is made, most large-scale regional HCPs involve extensive opportunity for comment and involvement during the pre-application plan development process.[287] Potentially affected transportation agencies would be well advised to keep

[276] 16 U.S.C. § 1536(e).

[277] 16 U.S.C. §§ 1536(g)(1)–(2).

[278] ESA Consultation Handbook, *supra* note 252, at Appendix G.

[279] FWS ESA Summary, *supra* note 214.

[280] *Id.*; *See* City of Las Vegas v. Lujan 891 F. 2d 927, 929 (D.C. Cir. 1989) (Plaintiffs allege that designation of desert tortoise as an endangered species will bring construction activity in southern Nevada to a standstill).

[281] U.S. DEP'T OF THE INTERIOR AND FISH & WILDLIFE SERVICE, HABITAT CONSERVATION PLANNING AND INCIDENTAL TAKE PERMIT PROCESSING HANDBOOK 1-1 (HCP Handbook) (1996), available at http://endangered.fws.gov/hcp.

[282] U.S. FISH & WILDLIFE SERVICE, HABITAT CONSERVATION PLANS AND THE INCIDENTAL TAKE PERMITTING, (undated) (FWS HCP Guidance) available at http://endangered.fws.gov/hcp/hcpplan.html.

[283] 16 U.S.C. § 1539(a)(2)(A)(i)–(v).

[284] FWS ESA Summary, *supra* note 214; HCP Handbook, *supra* note 281, at 1-2 and 4-1 to 4-2.

[285] FWS HCP Guidance, *supra* note 282.

[286] *Endangered Species and Conservation Planning* at http://endangered.fws.gov/hcp/index.html.

[287] *Id*.

track of, or ideally participate actively in, such processes.

In issuing an incidental take permit, FWS or NMFS must comply with NEPA. Because an incidental take permit can only authorize otherwise lawful activity, compliance of the permit activity with other federal laws and any applicable state or local environmental and planning laws is also required.[288] Take permits and their associated HCPs may be categorically excluded from NEPA, require an EA, or, rarely, an EIS. Although the FWS or NMFS is responsible for NEPA compliance, the agency may permit the applicant to prepare draft EA documentation, subject to agency guidance, as a way to expedite the application process and permit issuance, and encourages the preparation of joint HCP and EA documentation.[289]

Incidental take permits will be issued only if the statutory criteria are satisfied. The taking must be incidental, the applicant must minimize and mitigate the impacts of the taking to the maximum extent practicable, and the applicant must ensure that adequate funding and the means to deal with unforeseen circumstances will be provided. In addition, the taking must not appreciably reduce the likelihood of the survival and recovery of the species in the wild, and the applicant must ensure that other measures required by the reviewing agency will be provided.[290]

The growing importance of the incidental take and habitat conservation plan process for local planning and development in many parts of the country reflects the increasing impact of the ESA as economic expansion encroaches on species habitat. Transportation agencies will do well to give careful forethought to species protection issues under both the ESA and other federal and state wildlife and species protection laws, the principal ones of which are discussed below, when planning needed improvements.

b. The Fish and Wildlife Coordination Act[291]

The Fish and Wildlife Coordination Act requires federal decision makers to give equal consideration to and coordinate wildlife conservation with "other features of water resource development…."[292] The Act has as its stated purpose the recognition of "the vital contribution of our wildlife resources to the Nation" and the increasing public interest and significance of such resources.[293] Under Section 662(a) of the Coordination Act:

> [W]henever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened or…otherwise controlled or modified for any purpose whatever…by any department or agency of the United States, or by any public or private agency under Federal permit or license, such department or agency shall first consult with the United States Fish and Wildlife Service, Department of the Interior, and with the head of the agency exercising administration over the wildlife resources of the particular State…with a view to the conservation of wildlife resources…as well as providing for the development and improvement thereof….[294]

The consultation process may result in (1) alteration of water projects to reduce adverse effects on fish and wildlife, (2) mitigation measures to compensate for unavoidable adverse effects, or (3) studies designed to determine the extent of adverse effects and the best means of compensating for them.[295]

The Coordination Act requires consultation early in the planning process with the FWS or the NMFS (where marine species are involved), as well as the head of the appropriate state wildlife agency for projects that come within the scope of the Act. Impoundments of water resulting in less than 10 acres of maximum surface area and land management activities by federal agencies with respect to federal lands are exempt from the Coordination Act's consultation requirement.[296] Consultation requires some form of response to the fish and wildlife agency's analysis of the project, but "does not require that an agency's decision correspond to the view of the FWS."[297] Instead the Act requires only that the wildlife agency views be given serious consideration.[298] Furthermore, the procedural requirements of the Coordination Act are "automatically" fulfilled by compliance with NEPA in the general consideration of wildlife impacts.[299]

Coordination Act consultation may justify expenditures of project funds for the study and mitigation of negative wildlife impacts of highway construction involving the modification of a water body.[300] Conservation measures adopted as a result of the consultation process may be included in project costs, except for the operation of wildlife facilities.[301]

c. The Migratory Bird Treaty Act [302]

The Migratory Bird Treaty Act (MBTA)[303] has important potential implications for transportation

[288] HCP Handbook, *supra* note 281, at 1-5.

[289] FWS HCP Guidance, *supra* note 282; HCP Handbook, *supra* note 281, at ch. 5.

[290] 16 U.S.C. § 1539(a)(2)(B)(i)-(v); Friends of Endangered Species, Inc. v. Jantzen, 760 F.2d 976, 982 (9th Cir. 1985).

[291] This discussion is taken in substantial part from BLUMM, *supra* note 256, at 20-21.

[292] 16 U.S.C. § 661 (1991).

[293] *Id*.

[294] 16 U.S.C. § 662(a).

[295] BLUMM, *supra* note 256, at 21.

[296] 16 U.S.C. § 662(h).

[297] County of Bergan v. Dole, 620 F. Supp 1009, 1063 (D.N.J. 1985) *aff'd*. 800 F.2d 1130 (3d Cir. 1986).

[298] *Id*.

[299] *Id*. at 1064.

[300] BLUMM, *supra* note 256, at 21.

[301] BLUMM, *supra* note 256, at 21; 16 U.S.C. § 662(d).

[302] This discussion is an update of the discussion in BLUMM, *supra* note 256, at 21.

projects because of its "take" restrictions.[304] The MBTA provides that "except as permitted by regulations…it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture or kill…any migratory bird…nest, or egg of any such bird…."[305] Not only endangered bird species and waterfowl, but birds usually thought to be common such as crows, sparrows, chickadees, jays, and robins, are listed as protected under the MBTA.[306]

Courts in at least three cases have interpreted the MBTA's language to apply to any activity that can kill or otherwise "take" birds, even if there is no intent to do so.[307] Under that theory, the MBTA could conceivably be applied where a transportation project resulted in the death of protected birds or destruction of nests or eggs, for example by construction equipment or by hazardous substances released during construction. It has been suggested that because the MBTA is a strict liability criminal statute, permits should be sought by transportation agencies even when there is a mere possibility of a project causing a "take" in this regard.[308] However, other courts, in the context of federal timber sales, have held that the MBTA is intended only to apply to activities such as poaching and hunting and not to activities such as habitat modification that will incidentally result in bird deaths.[309]

Although there is no citizen's suit provision under the MBTA, it has been suggested that the Coordination Act may allow injunctions against actions that would produce violations of the MBTA.[310] A recent Executive Order invoking the MBTA makes it the responsibility of all federal agencies that take actions likely to have a measurable negative impact on migratory bird populations to adopt a Memoranda of Understanding with the FWS to promote the conservation of migratory birds.[311]

d. State Endangered Species Laws

Most states have both imposed some form of protection for species considered to be endangered or threatened under federal law and have established their own list of additional species specifically protected by the state.[312] Such requirements should be consulted early in the planning process by planners responsible for transportation improvements, with particular attention to those requirements that designate significant habitat for special treatment. The alteration of endangered species habitat or other actions that could result in a "taking" of a species protected under state law may pose an obstacle to the intended completion of a project.

Some states require that all activities of a particular nature be reviewed for their impact on species habitat. For example, California and Maine require that a state agency or municipality may not permit, license, or fund projects that will significantly alter identified endangered species habitat, jeopardize the species, or violate wildlife protection guidelines.[313] In Massachusetts, no alteration of a designated significant habitat may take place without a written permit issued by the state natural resources agency.[314] In Maryland, state agencies must take any action necessary to ensure that activities authorized, carried out, or funded by them do not jeopardize endangered or threatened species or destroy or modify critical habitat.[315] Even projects that avoid identified or designated habitat may trigger obligations under local endangered species legislation if construction activity or facility operations will have an actual impact on a designated species under provisions that prohibit the "taking" of endangered wildlife.[316] As under the federal ESA, species addressed by such state laws may include plant life in addition to endangered animals.[317] Some states have particular statutes addressed at specific species that must be considered in additional to requirements

[303] 16 U.S.C. §§ 703–12.

[304] 16 U.S.C. § 703. *See* BLUMM, *supra* note 256, at 21.

[305] 16 U.S.C. § 703.

[306] *See* Mahler v. United States Forest Service, 927 F. Supp. 1559, 1576 (S.D. Ind. 1996).

[307] United States v. F.M.C. Corp., 572 F.2d 902 (2d Cir. 1978); United States v. Corbin Farm Service, 444 F. Supp. 510 (E.D. Cal. 1978); Sierra Club v. Martin, 933 F. Supp. 1559 (N.D. Ga. 1996), *reversed*, 110 F.3d 1551, 1555–56 (11th Cir. 1997) (on grounds that the Federal Government is not a "person" against which the MBTA can be applied), *on remand*, 992 F. Supp. 1448 (N.D. Ga. 1998).

[308] BLUMM, *supra* note 256, at 21.

[309] Citizens Interested in Bull Run, Inc. v. Edrington, 781 F. Supp. 1502, 1509–10 (D. Or. 1991); Seattle Audubon Society v. Evans, 952 F.2d 297, 302 (9th Cir. 1991); Mahler, 927 F. Supp. at 1579 (The MBTA does not apply to activities other than those intended to harm or exploit harm to birds even if they result in unintended deaths of migratory birds).

[310] *See* BLUMM, *supra* note 256, at 21, n.664.

[311] Executive Order No. 13186, 66 Fed. Reg. 3853, January 17, 2001.

[312] MUSGRAVE, R.S. & STEIN, M.A., STATE WILDLIFE LAWS HANDBOOK, 16–17 (1993).

[313] *Id*. at 775; CAL. FISH & GAME CODE § 2050 *et seq.*; 12 ME. S.R.A. § 7755-A.

[314] MASS. GEN. L. ch. 131A, § 5; no species habitat requiring a permit for alteration has been designated as yet, and the provisions of the Massachusetts act with the most practical impact on transportation and other projects in that state are the requirement that state agencies take all practical measures to avoid or minimize harm to designated species when they conduct, find, or permit projects, MASS. GEN. L. ch. 131A, § 4. In Wisconsin, *see also* WIS. STAT. § 29.604.

[315] MD. CODE ANN. NAT. RES. § 10-2A-04.

[316] *See, e.g.,* 520 Ill. L.C.S. 10/11 (Pre-action consultation of state and local governments with state wildlife agency deemed to satisfy obligation on such agencies not to take any action that will jeopardize listed species or destroy their habitat, provided that the action does not in fact result in the killing of or injury to any listed animal).

[317] *See, e.g.,* 520 Ill. L.C.S. 10/6 (plants and animals); CAL. FISH & GAME CODE § 2062 (plants and animals), LA. R.S. 56-1902 (vertebrates and invertebrate animals).

addressed at endangered species generally.[318] Some have provisions expressly addressed at transportation agencies or projects.[319]

2. Swampbuster and Wetland Reserve Program Provisions of the Food Security Act (FSA)[320]

The wetland conservation provisions of the FSA may impact transportation projects by making it more likely that wetlands will be encountered. The FSA of 1985 (the 1985 Farm Bill), as amended by the Food, Agriculture, Conservation and Trade Act of 1990 (the 1990 Farm Bill) and the Federal Agriculture Improvement and Reform Act of 1996 (the 1996 Farm Bill),[321] includes several provisions, including financial disincentives, to prevent the conversion of erodible lands and wetlands to agricultural use. These "swampbuster" provisions, as they are called, promote the conservation of wetlands on agricultural lands and the protection of wildlife habitat and water quality.[322]

In addition, the Wetlands Reserve Program (WRP), added in the 1990 Farm Bill, authorizes the Secretary of Agriculture to purchase permanent or 30-year conservation easements on 975,000 acres of converted and farmed wetlands for preservation and restoration purposes.[323] The WRP program gives priority to wetlands that enhance habitat for migratory birds and other wildlife, and the FWS assesses the eligibility of each offered property and must approve the restoration and management plans for each easement area.[324] Transportation projects encountering wetlands subject to federal conservation easements under WRP may have to satisfy Section 4(f) because such easements constitute a form of public ownership and WRP land is administered in part as migratory bird and wildlife habitat.[325]

3. Other Wetlands Law

a. The Wetlands Executive Order and DOT Order 5660.1A

The Wetlands Executive Order[326] and the DOT Order,[327] issued to ensure compliance with the Executive Order, impose substantive constraints on federal actions involving wetlands such as funding activities, licensing and permitting decisions, and acquisition and disposal of federal lands that may restrict transportation projects.[328]

i. The Wetlands Executive Order.—On May 24, 1977, President Carter signed Executive Order No. 11990 (Protection of Wetlands), stating that the "the nation's coastal and inland wetlands are vital natural resources of critical importance to the people of this country…The unwise use and development of wetlands will destroy many of their special qualities and important natural functions."[329] This order was issued pursuant to and in furtherance of the NEPA of 1969 and sets forth a more exacting standard for agency action than NEPA.[330] The Executive Order has "the force and effect of law."[331] It imposes a nondiscretionary duty on the heads of agencies to "take action to minimize the destruction, loss or degradation of wetlands."[332] In addition, the Wetlands Executive Order is subject to judicial review under the Administrative Procedures Act,[333] and has the force and effect of a statute enacted by Congress.[334] However, "agencies are not required to prepare a separate document that explicitly illustrates compliance with Executive Order 11990…."[335]

The Executive Order is directed at all wetlands (not just publicly owned lands). It applies to direct transportation project activities such as construction

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[318] *See, e.g.,* FLA. STAT. § 370.12, addressed at protecting marine turtles.

[319] Texas Stat. Trans. § 201.606 (addressing acquisition of land within endangered species habitat); CAL. GOV'T CODE § 65081.3 (requiring consideration of state and federal endangered species act concerns before a regional transportation planning agency can designate a corridor for acquisition).

[320] This discussion is based in part on BLUMM, *supra* note 256, at 13.

[321] 16 U.S.C. §§ 3801–62.

[322] 16 U.S.C. § 3821(c). The Corps, EPA, and Soil Conservation Service entered into a memorandum of agreement on January 9, 1994, addressing the delineation of wetlands located on or surrounded by agricultural lands, for purposes of the "swampbuster" provisions. Internal FHWA guidance provides that state highway agencies should contact SCS rather than the Corps to establish procedures for delineating wetlands in agricultural areas for Section 404 purposes. *Information on Major Wetlands Issues*, March 25, 1994, available at www.fhwa.dot.gov/environment/guidebook/vol1/doc14q.pdf.

[323] 16 U.S.C.A. § 3837–37f.

[324] *See* JOHN GOLDSTEIN, IMPACT OF FEDERAL PROGRAMS ON WETLANDS, ch. 3 (1996).

[325] FHWA Memorandum: Applicability of Section 4(f) to Wetlands Under Easement to the U.S. Fish and Wildlife Service (May 3, 1983). *See also* BLUMM, *supra* note 256, at 14.

[326] Exec. Order No. 11990, 42 Fed. Reg. 26,961 (May 24, 1977).

[327] DOT Order No. 5660.1A (Aug. 24, 1978). 43 Fed. Reg. 45, 285.

[328] BLUMM, *supra* note 256, at 14.

[329] Exec. Order No. 11990, 42 Fed. Reg. 26,961 (May 24, 1977).

[330] Surfrider Found. v. John Dalton et al., 989 F. Supp. 1309, 82 (S.D. Ca. 1998). National Wildlife Fed'n v. Adams, 629 F.2d 587, 591 (9th Cir. 1980).

[331] National Wildlife Fed'n v. Babbitt, 1993 U.S. Dist., LEXIS 10689 (D.C.D.C. 1993).

[332] Exec. Order No. 11990, at § 1(a), 42 Fed Reg., 26,961 (May 24, 1977).

[333] National Wildlife Fed'n v. Adams, 629 F.2d at 591–92.

[334] Eatmon v. Bristol Steel & Iron Works, Inc., 769 F.2d 1503 (11th Cir. 1985).

[335] Surfrider Found. v. John Dalton et al., 989 F. Supp. 1309, 82 (S.D. Ca. 1998).

and funding of highway projects in wetlands, as well as actions of other federal agencies involving the disposing of federally-owned wetlands or granting easements or rights-of-way. All federal agencies are subject to and must comply with the Executive Order. The heart of the Executive Order is as follows:

> [E]ach agency, to the extent permitted by law, shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds (1) that there is no practicable alternative, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. In making this finding the head of the agency may take into account economic, environmental and other pertinent factors.[336]

The Executive Order requires that each agency provide for early and timely public review of projects involving wetlands, even if the project's potential environmental effects are not significant enough to require the preparation of an EIS under NEPA.[337]

The requirements of the Executive Order are generally less restrictive than the Section 4(f) restrictions.[338] For example, in *National Wildlife Federation v. Adams*[339] and *Ashwood Manor Civic Association v. Dole*,[340] federal courts ruled that the Executive Order's "no practicable alternative" standard is less restrictive than the Section 4(f) requirement of "no feasible and prudent alternative." As defined in *Adams,* an alternative is "practicable" if "it is capable of attainment within relevant existing constraints."[341]

The Executive Order also requires that federal agencies "consider the factors relevant to a proposal's effect on the survival and quality of wetlands. Among these factors are: (a) public health, safety, and welfare including water supplies, water quality, recharge and discharge, pollution, flood and storm hazards, and sediment and erosion; (b) maintenance of natural systems, including conservation and long-term preservation of existing flora and fauna, species, and habitat diversity and stability, hydrologic utility, fish, wildlife, timber, and food and fiber resources; and (c) other uses of wetlands in the public interest, including recreational, scientific, and cultural uses."[342] Finally, the Executive Order requires that when federal lands containing wetlands are proposed for lease, easement, right-of-way, or disposal to nonfederal public or private parties, the agency identify applicable use restrictions in the conveying documentation or else withhold the property from disposal altogether.[343]

ii. DOT Order 5660.1A..—DOT Order 5660.1A,[344] issued pursuant to the Wetlands Executive Order and other federal environmental and transportation laws, implements the requirements of the Wetlands Executive Order by providing definitions and specific procedures for applying the Wetlands Executive Order to transportation projects located in or having an impact on wetlands. The DOT order limits transportation agencies' reliance upon economic factors in making determinations of "practicable alternatives" under the Executive Order. While costs may be taken into account in concluding that there is no practicable alternative to impacting wetlands, "[s]ome additional cost alone will not necessarily render alternatives or minimization measures impractical since additional cost would normally be recognized as necessary and justified to meet national wetland policy objectives."[345] Insufficient financial resources to implement alternatives or mitigation "cannot be used as the sole, or even the major determinant to a finding of impracticability."[346]

The DOT Order also includes a number of procedural requirements that must be followed by FHWA. For example, appropriate opportunity for early review of proposals for new construction in wetlands should be provided to the public and to agencies with special interest in wetlands. This may include early public involvement approaches.[347] Another important procedural requirement involves preparation of an EIS. Under Section 7c of the DOT Order, "Any project which will have a significant impact on wetlands will require preparation of an EIS. Prior to the preparation of an EIS, agencies with jurisdiction and expertise concerning wetland impacts…should be consulted for advice and assistance concerning the proposed undertaking."[348]

b. Limitations of the Wetlands Executive Order and DOT Order 5660.1A

> The Wetlands Executive Order and the DOT Order apply only to federal activities, including funding assistance for construction. As stated by the Tenth Circuit Court of Appeals in *Village of Los Ranchos De Albuquerque et al. v. Barnhart et el*.,
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> …[E]xecutive Order 11990 only imposes obligations upon an executive agency in carrying out its *responsibilities* for land use planning…. Because the state declined to seek

[336] Exec. Order No. 11990, at § 2, 42 Fed. Reg. 26,961 and 26,962 (May 24, 1977).

[337] *Id.* at § 2(b), 42 Fed. Reg. 26,961 and 26,962.

[338] 49 U.S.C. § 303(c); BLUMM, *supra* note 256, at 14.

[339] National Wildlife Fed'n v. Adams, 629 F.2d at 591–92.

[340] Ashwood Manor Civic v. Dole, 619 F. Supp. 52, 84–85 (E.D. Pa. 1985), *aff'd*, 779 F. 2d 41 (3d Cir. 1985); *cert. denied,* 475 U.S. 1082 (1986).

[341] National Wildlife Fed'n v. Adams, 629 F.2d at 591–92.

[342] Exec. Order No. 11990, at § 5, 42 Fed Reg. 26,963 (May 24, 1977).

[343] *Id*. at § 4.

[344] DOT Order No. 5660.1A, 43 Fed. Reg. 45,285 (August 24, 1978).

[345] DOT Order No. 5660.1A, at § 5, 43 Fed. Reg. 45,286 (August 24, 1978).

[346] *Id*.

[347] DOT Order No. 5660.1A, at § 7b, 43 Fed. Reg. 45,286 (August 24, 1978).

[348] DOT Order No. 5660.1A, at § 7c, 43 Fed. Reg. 45,286 (August 24, 1978).

> such [federal] funding, it was free to reject whatever federal location advice was offered in connection with the preparation of the EIS. Thus, the district court correctly concluded that the [federal government's] limited involvement in the [bridge] project is insufficient federal action to trigger the requirements of Executive Order 11990.[349]

4. The Rivers and Harbors Act (RHA) of 1899[350]

Although originally enacted in 1899 to protect navigation and commerce, since the 1960s the RHA has been interpreted to require consideration of environmental impacts.

a. Section 9 and 10 Permit Requirements

Sections 9 and 10 of RHA apply to construction across navigable waters and to obstructions of navigable waters.[351] Such projects will usually involve discharges of dredged or fill material into navigable waters subject to permitting under Section 404 of the CWA. However, these sections of RHA may apply even if a CWA permit is not needed or where the CWA requirements are met by a nationwide permit.

Section 10 prohibits "any obstruction not affirmatively authorized by Congress to the navigable capacity of any of the waters of the United States" without a permit from the Army Corps of Engineers. The Section 10 permit requirements apply to structures that affect navigable waters, as well as those in navigable waters. For example, a tunnel under a navigable waterway requires a Section 10 permit.[352] Utility lines across a river or other navigable waters require a permit under this section.[353] Bridge or pier supports and bank stabilization projects are among the other types of projects requiring approval under Section 10.[354]

Section 9 of the RHA is specifically addressed at the construction of any "bridge, causeway, dam or dike over or in" the navigable waters.[355] It requires the approval of the Secretary of Transportation over plans for the construction of bridges and causeways, and this authority has been delegated to the Coast Guard.[356] The Secretary of the Army and Chief of Engineers must approve the construction of dams or dikes.[357]

b. Relationship of RHA with Section 404 Permitting Program of the CWA

The general policies and procedural regulations that apply to Section 404 permits apply to requirements for a Section 9 or 10 permit. However, Sections 9 and 10 permits do not require compliance with EPA's Section 404(b) guidelines unless a Section 404 permit is also required. Projects under Sections 9 and 10 of RHA must undergo the Corps' public interest review process though.[358] This review involves balancing the benefits and detriments of the project, including the relative extent of the need for the proposed structure, the practicability of using alternative locations and methods, and the duration and extent of both beneficial and detrimental project effects.[359] In many instances, exemptions from permit requirements under Section 404 of the CWA also exempt projects from the requirement of a separate permit under Section 10. Activities permitted by a state-administered Section 404 program are authorized by a nationwide Section 10 permit.[360]

c. RHA Applicability to Bridges and Causeways

Coast Guard review of bridges and causeways under RHA Section 9 focuses primarily on navigational impacts, although it also involves verifying compliance with applicable laws, regulations, and orders.[361] FHWA conducts environmental impact review, including locational studies, with respect to floodplain impacts.[362] This allows for early public review and comment as part of the NEPA process when projects involve floodplain encroachments. Review under FHWA regulations is not as broad as the public interest review required of Corps-regulated projects. Causeways and approach fills still require individual Section 404 permits and the attendant Corps review, and bridges that ordinarily qualify for a nationwide Section 404 permit may become subject to this review if the Corps determines that they involve more than minimal adverse environmental effects or may be detrimental to the public interest.[363]

5. Floodplains Law[364]

Several federal laws, programs, and executive orders regulate floodplains and variously define floodplains. The definition used for most floodplains regulatory and management purposes is based on the frequency of flooding in an area. For example, the Floodplains

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[349] Village of Los Ranchos de Alburquerque v. Barnhart, 906 F.2d 1477, 1485 (emphasis in original) (10th Cir. 1990) *cert. denied*, 498 U.S. 1109 (1991); *see* BLUMM, *supra* note 256, at 14.

[350] This discussion is taken in substantial part from BLUMM, *supra* note 256, at 15.

[351] 33 U.S.C. §§ 401, 403 (1991).

[352] 33 C.F.R. § 322.3(a).

[353] 33 C.F.R. § 322.5(i).

[354] BLUMM, *supra* note 256, at 15.

[355] 33 U.S.C. § 401.

[356] 33 C.F.R. § 114.01(c).

[357] 33 U.S.C. § 401. *See* BLUMM, *supra* note 256, at n.417.

[358] 33 C.F.R. § 320.4(a). *See* § 3.A.4.a.ii.

[359] 33 C.F.R. § 320.4(a)(2).

[360] Nationwide Permit No. 24, 61 Fed. Reg. 65874, 65916 (Dec. 13, 1996).

[361] 33 C.F.R. § 115.60; BLUMM, *supra* note 256, at 15.

[362] 23 C.F.R. § 650.101–650.117.

[363] BLUMM, *supra* note 256, at 15.

[364] This discussion is taken in substantial part from BLUMM, *supra* note 256, at 16–7.

Executive Order[365] defines floodplains as "lowland and relatively flat areas adjoining inland and coastal waters, including flood prone areas of offshore islands, that are subject to a one percent or greater chance of flooding in any given year." This so-called "100-year flood plain" or "base flood" is used by the Federal Emergency Management Agency (FEMA) to establish floodplain management and regulatory criteria in connection with the National Flood Insurance Program, and other regulatory agencies use similar definitions.[366]

Floodplains provide many useful ecological as well as cultural values and functions. Transportation projects that are inadequately planned, designed, constructed, or maintained can adversely affect floodplain resources due to (1) increased runoff from vegetation clearing and removal, wetlands destruction, dune removal, and other development activities like paving; (2) interruption of surface groundwater movement; and (3) increased pollution.[367]

a. The National Flood Insurance Program (NFIP) and the Unified National Program for Floodplain Management

The NFIP provides subsidized flood insurance for owners of homes and businesses located in flood-prone areas, promotes planning to avoid future flood damage, and requires communities to "adopt adequate floodplain ordinances with effective enforcement provisions consistent with Federal standards to reduce or avoid future flood losses."[368] As part of the legislation establishing the NFIP, Congress also endorsed the creation of a Unified National Program for Floodplain Management as a planning tool to encourage state and local government to consider floodplain management issues in land use decisions.[369]

In order to implement the NFIP, FEMA publishes information regarding all floodplains, including coastal areas, that have "special flood hazards," which are defined as areas that would be inundated by the occurrence of a 100-year flood.[370] Once a community notifies FEMA that it is in a flood-prone area and prepares preliminary maps of the floodplain, the community must then adopt a floodplain management ordinance or regulation before FEMA will make subsidized insurance available to homeowners and businesses within the community.[371] FEMA also requires communities to designate floodways. A floodway includes the river channel and portions of the adjacent floodplain that must be left unobstructed in order to discharge floodwaters without increasing upstream flood levels by more than 1 ft. Within the designated floodway, a community must prohibit any development that would cause a rise in flood levels.[372]

The Floodplain Executive Order issued in 1977 requires all federal agencies to evaluate the potential impact of their actions on floodplains.[373] By virtue of the Executive Order, agencies are directed to avoid actions impacting the base floodplain area that would be impacted by a 100-year flood unless the proposed location is the only practicable alternative.[374] Department of Transportation Order No. 5650.2 applies the Floodplain Executive Order to all DOT agency actions, planning programs, and budget requests, but leaves to each agency the option of issuing its own implementing policies and procedures.[375]

Floodplain planning and zoning requirements under NFIP have a direct impact on transportation project design and location. For example, FHWA regulations implementing the Floodplains Executive Order and DOT Order prohibit new highway projects that cause a "significant encroachment" on floodplains unless there is no practicable alternative. A "no practicable alternative" finding by the FHWA must be supported by the reasons why the proposed action must be located in the floodplain, the alternatives considered and why they were not practicable, and a statement indicating whether the action conforms to applicable state or local floodplain protection standards.[376] If a floodplain encroachment by a highway project is unavoidable, the preferred design must be supported by analyses of design alternatives and a finding that the action conforms to applicable FEMA, state, and local floodplain protection standards adopted with respect to NFIP.[377]

6. Coastal Zone Law

a. The CZMA

The CZMA of 1972, comprehensively amended in 1996,[378] proclaims a national interest in and federal policy for the management of (1) coastal zones, (2) water resource areas bordering the Great Lakes, and (3) the oceans. It creates an extensive federal grant program to encourage coastal states to develop and administer coastal zone management programs. The

[365] Exec. Order No. 11988 § 6[c], 42 Fed. Reg. 26,951 (May 24, 1977).

[366] 44 C.F.R. § 59.1 (definition of "base flood"); *see also* 44 Fed. Reg. 24679 (Apr. 26, 1979) (DOT Order No. 5650.2).

[367] BLUMM, *supra* note 256, at 16.

[368] 42 U.S.C. § 4002(b); *see generally* 42 U.S.C. §§ 4001–4128.

[369] 42 U.S.C. § 4001(c); *see* BLUMM, *supra* note 256, at 16–7.

[370] 42 U.S. C. § 4101(a) and 44 C.F.R. § 59.1.

[371] 44 C.F.R. § 59.22.

[372] 44 C.F.R. § 60.3(d)(3).

[373] Exec. Order No. 11988, 42 Fed. Reg. 26,951 (May 24, 1977).

[374] *See* DOT Order No. 5650.2 at 44 Fed. Reg. 24678 (Apr. 6, 1979).

[375] *Id*.

[376] 23 C.F.R. § 650.113.

[377] 23 C.F.R. § 650.113(a)(3); 23 C.F.R. §650.115(a); *See* BLUMM, *supra* note 256, at 17.

[378] 16 U.S.C. §§ 1451–65.

CZMA also establishes a national estuarine research reserve system.[379]

State "coastal consistency certifications" are required when seeking permits or approvals under the CWA or other federal laws.[380] For transportation projects within or affecting the coastal zone, consistency with a state approved Coastal Zone Management Program must be addressed in the final EIS or finding of no significant impact.[381] Each state is authorized to develop its own coastal consistency review process, and in the absence of an exemption such as where the secretary finds that the project (1) is consistent with the purposes of CZMA, or (2) is necessary in the interest of national security, a state's objections will be determinative.[382] These exceptions are rarely used, with the "consistent with the purposes of the CZMA" exception requiring that there be no reasonable alternative.[383]

b. State Coastal Zone Management (CZM) Programs

State CZM programs are subject to approval by the Assistant Administrator for Ocean Services and Coastal Zone Management of NOAA. NOAA regulations at 15 C.F.R. Part 923 set forth the requirements for approval of state programs.[384] All of the coastal states, which include states contiguous to the Atlantic or Pacific Oceans, the Gulf of Mexico, or any of the Great Lakes, have approved programs with two exceptions: Indiana is in the process of developing its program, with approval expected in 2002; Illinois is not participating.[385]

A state has great flexibility under the CZMA in the design and implementation of a CZM program subject to certain requirements. A program "must provide for the management of those land and water uses having a direct and significant impact on coastal waters and those geographic areas which are likely to be affected by or vulnerable to sea level rise."[386] The state must define the boundaries within which it will implement its program.[387] For example, California administers its program within only a 1000-yd inland strip adjacent to its coastal waters, while Florida includes the entire state within its zone.[388] The state must identify the authorities and organizational structure on which it will rely to administer its program, including all relevant laws, regulations, judicial decisions, and constitutional provisions.[389] The program may embody any one or a combination of the techniques set forth in Section 306(d)(11) of the CZM Act to control land use.[390] The three general forms of control techniques include the establishment by the state of criteria and standards for local implementation, consisting of enforceable policies to which local implementation programs must adhere, and which if not followed can be directly enforced by the state; direct state land and water use planning and regulation; or state review on a case by case basis of actions affecting land and water use.[391] For example, Connecticut and Louisiana enacted specific coastal management programs, while New York and Florida incorporated existing regulations and laws into their programs.[392]

c. The Coastal Barrier Resources Act (CBRA)

The CBRA is another important federal law affecting development in coastal areas.[393] The law prevents most federal assistance for activity affecting undeveloped coastal barrier landforms such as barrier islands, spits, mangrove fringes, dunes, or beaches located along the Atlantic and Gulf coasts and the Great Lakes.[394] Areas subject to CBRA have been identified and mapped as part of the Coastal Barrier Resource System.[395] It behooves a transportation agency to consult these maps and coordinate with the FWS regional director early in the process of planning for a transportation project in a coastal barrier area.[396] Specific prohibitions include assistance for:

> (1) the construction or purchase of any structure, appurtenance, facility, or related infrastructure; (2) the construction or purchase of any road, airport, boat landing facility, or other facility on, or bridge or causeway to, any System unit; and (3) the carrying out of any project to prevent the erosion of, or to otherwise stabilize,

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[379] 16 U.S.C. § 1461.

[380] 16 U.S.C. § 1456(c).

[381] BLUMM, *supra* note 256, at 20, citing 23 C.F.R. § 771.133; *see also* 49 C.F.R. § 622.101 (cross-reference to FHWA requirements in FTA regulations).

[382] 15 C.F.R. §§ 930.1, 930.94, 930.97–98 and 930.120 (Jan. 1, 2001).

[383] BLUMM, *supra* note 256, at 20.

[384] 15 C.F.R. pt. 923.

[385] *CZM Approval Date, Shoreline Miles, Coastal County Populations,* undated, available at http://www.ocrm.nos.noaa.gov. A total of 95,331 mi of shoreline are managed under the program.

[386] 15 C.F.R. § 923.3(b).

[387] 15 C.F.R. pt. 923, subpt. D.

[388] Houck, Oliver A. & Rolland, Michael, *Symposium: Environmental Federalism: Federalism in Wetlands Regulation: A Consideration of Delegation of Clean Water Act,* 54 MD. L. REV. 1242, 1294 (1995).

[389] 15 C.F.R. § 923.40, 923.41 (Jan. 1, 2001).

[390] 16 U.S.C. § 1455(d)(11).

[391] 15 C.F.R §§ 923.43, 923.44, and 923.45.

[392] Houck & Rolland *supra* note 388, at 1294.

[393] 16 U.S.C. §§ 3501–10.

[394] *USFWS Coastal Barrier Fact Sheet*, available at http://www.fws.gov/cep/cbrfact.html.

[395] 16 U.S.C. § 3503; Although the term "undeveloped coastal barriers" is defined, the map designation is the controlling factor for determining whether an area is subject to the limitations on federal assistance. *See* BLUMM, *supra* note 256, at 20, citing Bostic v. United States, 753 F.2d, 1292, 1294 (4th Cir. 1985).

[396] *See* FEDERAL HIGHWAY ADMINISTRATION, ENVIRONMENTAL GUIDEBOOK, SUMMARY OF LEGISLATION AFFECTING TRANSPORTATION (1996) ("FHWA Environmental Guidebook"), at Tab 6.

> any inlet, shoreline, or inshore area….[397] The Act is not clear as to whether it precludes federal assistance for projects located outside the barrier system that might tend to encourage construction within it, such as roads and bridges opening up previously inaccessible areas.

Certain exemptions to the scope of CBRA are relevant to transportation agencies. In particular, assistance may be provided for the "maintenance, replacement, reconstruction, or repair, but not the expansion, of publicly owned or publicly operated roads, structures, or facilities that are essential links in a larger network or system."[398] In addition, the "maintenance, replacement, reconstruction, or repair, but not the expansion (except with respect to United States route 1 in the Florida Keys), of publicly owned or publicly operated roads, structures, and facilities" may take place if consistent with the purposes of the Act. [399]

7. Public Land Management Law[400]

a. National Wildlife Refuge System Administration Act (Refuge Act)

The Secretary of the Interior, through the FWS, is responsible for the conservation of fish and wildlife resources. For the purpose of consolidating the various statutes, regulations, and other authorities relating to the protection, management, and conservation of fish and wildlife, including species that are threatened with extinction, all lands, waters, and interests administered by the FWS as either wildlife refuges, areas for the protection and conservation of fish and wildlife that are threatened with extinction, wildlife ranges, game ranges, wildlife management areas, or waterfowl production areas are designated as the "National Wildlife Refuge System" (the System).[401] "The mission of the System is to administer a national network of land and waters for the conservation, management and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of American."[402]

The Refuge Act has significant implications for highways or other transportation corridors or projects that may involve proposed routes through a portion of the System. This is because the Refuge Act places severe restrictions on the alienation of lands or interests in lands administered under the System.[403] For example, except by exchange for other public lands or lands to be acquired, no transfer or disposal of refuge land can occur, unless the Secretary of the Interior determines (with the approval of the Migratory Bird Conservation Commission) "that such lands are no longer needed for the purposes for which the System was established."[404]

The Secretary of the Interior may permit, for a lump sum fee or annual rental payments, or for other suitable compensation, the use of the system, or grant right-of-way easements in, over, across, upon, through, or under any areas within the System for purposes such as but not limited to, the construction, operation, and maintenance of power lines, telephone lines, canals, ditches, pipelines, and roads. Such easements may only be granted, however, upon a determination that the proposed use is "compatible" with the purpose for which the refuge was established.[405]

Congress amended the Refuge Act on October 9, 1997,[406] to require the FWS to prepare a mission statement for the System, as well as to institute new planning goals and objectives for each refuge. The 1997 Refuge Act amendments also clarify the standards and procedures used to regulate recreational and commercial uses. By virtue of these amendments:

> The Secretary shall not initiate or permit a new use of a refuge or expand, renew or extend an existing use of a refuge, unless the Secretary has determined that the use is a compatible use and that the use is not inconsistent with public safety. The Secretary may make these determinations for a refuge concurrently with the development of a conservation plan.[407]

These amendments codify, in part, Executive Order No. 12996, issued by President Clinton on March 25, 1996.[408] Executive Order No. 12996 establishes a mission statement for the National Wildlife Refuge System, adopts four guiding principles for the management and use of national wildlife refuges,[409] and directs the Secretary of the Interior to undertake certain actions to provide for expanded public uses of refuges while ensuring the biological integrity and environmental health of refuges.

The 1997 amendments also established a national policy relevant to the System. Thus, it is the policy of the United States relevant to the conservation of fish and wildlife resources that: (1) refuges be managed to implement and support the mission of the System; (2) compatible wildlife-dependent recreation is a legitimate and appropriate general public use of the System that fosters refuge management and through which the

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[397] 16 U.S.C. § 3504(a).

[398] 16 U.S.C. § 3505(a)(3).

[399] 16 U.S.C. § 3505(a)(6)(F). Highways in Michigan in existence in 1990 are also exempted. 16 U.S.C. § 3505(c).

[400] This discussion is based in substantial part on BLUMM, *supra* note 256, at 25–27.

[401] 16 U.S.C. § 668dd(a)(1).

[402] 16 U.S.C. § 668dd(a)(2).

[403] BLUMM, *supra* note 256, at 25.

[404] 16 U.S.C. § 668dd(a)(2)(A); § 668dd(b)(3) (1994).

[405] 16 U.S.C. § 668dd(d)(1)(B).

[406] P.L. 105-57 (Oct. 9, 1997), 111 Stat. 1252.

[407] 16 U.S.C.A. § 668dd(d)(3)(A)(i) (West 2000).

[408] 61 Fed. Reg. 13647 (March 28, 1996).

[409] These principles include: encouraging public recreational use of refuges; protecting fish and wildlife habitat; establishing partnerships between governmental agencies and various sportsmen, conservation, and Native American organizations; and involving the public in the management and protection of refuges. 61 Fed. Reg. 13647.

American people can develop an appreciation for fish and wildlife; (3) compatible wildlife-dependent recreational uses are given priority consideration in refuge planning and management and; (4) a compatible wildlife-dependent recreational use within a refuge should be facilitated but subject to such restrictions or regulations as may be necessary, reasonable, and appropriate[410] to protect, conserve, and manage fish and wildlife resources.

The 1997 amendments to the Refuge Act also directed the FWS to adopt regulations establishing the process for determining whether a proposed refuge use is compatible use.[411] One aspect of these regulations that provoked the concern of FHWA was the decision to no longer allow compensatory mitigation as a way to make a proposed use compatible. The regulations, however, did not change the policy, consistent with the statute, of allowing exchanges of interests in land as a way to accommodate FHWA projects.[412] The preamble to these regulations also contained the ominous note by the FWS that "while the Congressional intent is that the Act itself not change, restrict or eliminate existing right-of-ways, it is also clear that Congress did not alter our authority to do so if warranted on compatibility or other grounds." In addition to Refuge Act requirements, construction of federal aid highways within the Refuge System also implicates wildlife, recreation, and in some cases possibly historic values and therefore triggers Section 4(f) of the DOT Act.[413]

b. Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act authorizes Congress, or a state legislature with the approval of the Secretary of the Interior, to designate rivers of remarkable wild, scenic, or recreational value as part of the wild and scenic river system.[414] The act establishes a policy: (1) to preserve selected national rivers and their immediate environments, which possess outstanding scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, in free-flowing condition; (2) to protect these rivers and their immediate environments for the benefit and enjoyment of present and future generations; and (3) to complement the national policy of dam and other construction on U.S. rivers with a policy that preserves other selected rivers in their free-flowing condition to protect water quality and fulfill other vital national conservation purposes.[415] Although all federal agencies must evaluate their proposed projects and ongoing activities, and collaborate with applicable agencies to ensure their decisions or actions will not adversely affect designated wild and scenic rivers, the Act primarily impacts water development projects, mining and mineral leasing on federal lands, and disposition of publicly-owned lands. Where a transportation project involves a proposed crossing of a designated river or other effect on a designated river or its environment, however, the requirements of the Wild and Scenic Rivers Act must be taken into account. Road construction is specifically identified as an activity that "might be contrary to the purposes of " the Act.[416] In addition, federally-aided road construction affecting a wild and scenic river designated for its historic, recreational, and wildlife values, will likely also raise obligations under Section 4(f) of the DOT Act.[417]

Three levels of protection and classification are given to rivers included in the System: (1) wild, (2) scenic, or (3) recreational. To be included in the System, a wild, scenic, or recreational river area must be a free-flowing stream and the related adjacent land area must possess scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values.[418]

Upon designation of a river as part of the System, the applicable federal agency with jurisdiction over the river segment must prepare and implement a land use management plan for the river based on this classification. The land use management plan must be specifically designed to protect and enhance the values that caused the particular river segment to be included in the system.[419] Although the land use management plan and the federal agencies implementing the plan must give protection of river values primary emphasis, the plan must also allow other uses that do not substantially interfere with public use and enjoyment of these values.[420] Once a river or river segment is designated and added to the System, all federal agencies are prohibited from assisting in the development of water resources projects (such as dams) that would have a direct and adverse effect on river values, such as fish and wildlife values. The Act permits such developments above or below a listed river segment as long as the development and related activities do not intrude into the designated area or unreasonably impair its values.[421] The head of any federal department or agency having jurisdiction over lands that include, border upon, or are adjacent to any river that has been designated or proposed for the System "shall take such action respecting management policies, regulations, contracts [and] plans affecting such lands…as may be necessary to protect such rivers" in accordance with the Act.[422]

[410] 16 U.S.C. § 668dd(a)(3)(A)-(3)(D).

[411] 16 U.S.C. § 668dd(d)(3)(B).

[412] 65 Fed. Reg. 62469-70 (October 18, 2000).

[413] *See* § 2B *supra*.

[414] 16 U.S.C. §§ 1271–87. Pub. L. No. 90-542 (Oct. 2, 1968), 82 Stat. 906. *See* BLUMM, *supra* note 256 at 25.

[415] 16 U.S.C. §§ 1271 and 1272.

[416] 16 U.S.C. § 1283(a).

[417] *See* § 3B *supra*.

[418] 16 U.S.C. § 1273(b).

[419] 16 U.S.C. § 1281(a).

[420] 16 U.S.C. § 1281(a).

[421] 16 U.S.C. §§ 1278(a) and (b).

[422] 16 U.S.C. § 1283(a).

c. National Forest Management Act (NFMA)

The NFMA is the principal federal statute governing the administration, management, use, and protection of national forests.[423] It requires that the Secretary of Agriculture, who acts through the U.S. Forest Service, assess federal forest land and develop and implement a resource management program based on multiple-use, sustained-yield principles for each unit of the National Forest System.[424] Although the principal purpose and goal of NFMA is sound timber management practices and the production of wood products from our national forests, NFMA also requires that the U.S. Forest Service, the agency responsible for implementing the NMFA, ensure that the resource management plans comply with NEPA as well as protect wildlife, water quality, and other ecological and societal values provided by wetlands and floodplains. These values can be affected when a highway use is proposed within a national forest. In addition, if forest system land encompasses a public park, recreation lands, or wildlife and waterfowl refuges or has historical value, Section 4(f) will apply and the Secretary of Transportation can authorize federal funding for the road only if there is no prudent and feasible alternative to using the land and the project includes all possible planning to minimize harm to such values.[425]

The national forest transportation system, as outlined in Section 1608 of the NMFA, must be installed to meet anticipated needs on an economical and environmentally sound basis.[426] Unless there is a need for a permanent highway identified in the forest development road system plan, any road constructed within a national forest in connection with a timber contract or other permit or lease must be designed to be temporary, with the goal of reestablishing vegetative cover on the roadway and other related areas disturbed by construction of the road within 10 years from the termination of their use.[427] Where a temporary forest road is under the jurisdiction of a state or local government agency and open to public travel, or there is an agreement to keep the road open to public travel once improvements are made; provides a connection between a safe public road and the renewable resources of the forest that are essential to the local, regional, or national economy; and serves other local needs, such as schools, mail delivery, relief from traffic generated by use of the national forest, or access to private property within the national forest,[428] it may be made a permanent forest highway by FHWA after consultation with the Forest Service and the state highway department.[429] A permanent highway through forest system lands can only be established or agreed upon if it has been the subject of review under NEPA and conforms to NFMA regulations.

d. Federal Land Policy and Management Act (FLPMA)

The FLPMA[430] requires the Secretary of the Interior through the Bureau of Land Management (BLM) to develop and maintain land-use plans for federal public lands and to manage such lands to protect water resources, wildlife habitat, and other wetland and floodplain associated resources.[431] Although most BLM lands are managed for multiple uses, certain areas are designated as "areas of critical environmental concern" where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values; fish and wildlife resources; or other natural systems or processes; or to protect life and safety from natural hazards.[432] To the extent that such lands are managed to protect historic, recreation, or wildlife assets, their use for a transportation project would trigger Section 4(f) requirements.[433]

FLPMA authorizes either the Secretary of the Interior or the Secretary of Agriculture, when national forests managed by the U.S. Forest Service are involved, to grant, issue, or renew rights-of-way over, upon, under, or through such federal lands as which are in the public interest. FLPMA enumerates seven land uses or activities for which BLM and/or the Forest Service may grant or renew rights-of-way including but not limited to various transportation systems.[434] A highway right-of-way proposed on public lands must submit extensive information and all applicable facts and details about the right-of-way use, including its potential impact on water quality, wildlife habitat, aesthetic values and other environmental values, and proposed mitigation and conservation measures. A right-of-way permittee must also comply with air and water quality standards under state and federal law and also with other state standards for public health and safety and environmental protection. The right-of-way must be located along a route that will cause the least damage to the environment, taking into consideration feasibility and other relevant factors.[435] The right-of-way permit may be conditioned to protect federal and other affected interests.[436] Permit terms and conditions shall also ensure that the right-of-way complies with state standards for construction, operation, and maintenance of the right-of-way if those are stricter than applicable federal standards.[437]

[423] 16 U.S.C. §§ 1600–14.

[424] 16 U.S.C. §§1601–04.

[425] 49 U.S.C. § 303(c). *See* § 3.B *supra*.

[426] 16 U.S.C. § 1608.

[427] 16 U.S.C. § 1608(b).

[428] 23 C.F.R. § 660.105(d).

[429] 23 C.F.R. § 660.105(c).

[430] 43 U.S.C. §§ 1701–84.

[431] 43 U.S.C. §§ 1712(a), 1701(a)(8); BLUMM, *supra* note 256, at 26.

[432] 43 U.S.C. § 1702(a); BLUMM *supra* note 256, at 4, 26.

[433] *See* BLUMM, *supra* note 256, at 5.

[434] 43 U.S.C. § 1761(a).

[435] 43 U.S.C. §§ 1765(a)(iii), (a)(iv), and (b)(v); BLUMM, *supra* note 256, at 26.

[436] 42 U.S.C. §§ 1765(b)(i); 1764(c).

[437] 16 U.S.C. § 1765(a)(iv).

e. The Wilderness Act

To ensure that an increasing human population, with attendant development, expanding settlement, and mechanization, does not leave the United States with no lands preserved and protected in their natural condition, the United States Congress in 1964 adopted the Wilderness Act to secure for present and future generations the benefits of an enduring resource of wilderness.[438] The Wilderness Preservation System created under the Act is composed of federally-owned lands designated as "wilderness areas," retaining their primeval character and influence, without permanent improvements or human habitation, and protected and managed so as to preserve their natural conditions.[439] Once Congress establishes existing federal lands as a wilderness area, there shall be no commercial enterprise and no permanent road within any designated wilderness area.[440] In order to establish a highway through a designated wilderness area, it would be necessary to apply to the Secretary of the Interior or Agriculture for a modification or adjustment of the wilderness boundary.[441] Thus, as one commentator has noted, "because the building of permanent roads is inconsistent with the objectives of the Wilderness Act, highway development is severely limited [and] Section 4(f) of the DOT Act will apply when public lands containing wildlife, recreation, or historic values are involved."[442] The Wilderness Act required the Secretary of the Interior or Agriculture to assess every roadless area of 5,000 acres or more and every roadless island within the national wildlife refuge, national forest lands, and national park systems for possible inclusion in the Wilderness System.[443] Over 100 million acres have been included in the National Wilderness Preservation System so far.[444]

f. Land and Water Conservation Act

The Land and Water Conservation Act creates a program of federal financial assistance for state acquisition and development of land and water areas and facilities for recreational resources.[445] In order for states to qualify for federal funds via the Land and Water Conservation Fund for the development of outdoor recreational uses and facilities, a state must first adopt a comprehensive statewide outdoor recreation plan. The comprehensive outdoor recreation plan must identify the state agency that will represent the state in dealing with the Secretary of the Interior to implement the comprehensive outdoor recreation plan; evaluate the demand for and supply of outdoor recreation resources and facilities in the state; set forth a program for the implementation of the plan; and contain other necessary information to support the comprehensive outdoor recreation plan, including the consideration of wetlands as important outdoor recreational resources.[446]

Under Section 6(f) of the Conservation Act, land acquired or developed with federal funding provided under the Act may not be used for nonrecreational purposes without a finding by the Secretary of the Interior that conversion is consistent with a comprehensive state plan. The state must also offset the lost resource with recreational properties of "reasonable equivalent usefulness and location."[447] These requirements apply in addition to Section 4(f) of the DOT Act when recreational land acquired or developed with Conservation Act funding will be affected by a transportation project. The obligation to seek approval under Section 6(f) arises at the time that the conversion takes place or when an application to convert is filed. Mere planning activities do not trigger a Section 6(f) obligation.[448]

g. Water Bank Act

The Water Bank Act[449] "promotes the preservation of wetlands by authorizing the Secretary of Agriculture to enter into land-restriction agreements with owners and operators in return for annual federal payments."[450] These restrictions amount to leases of farmland in an effort to protect wetlands during critical times of the year. For example, a 10-year renewable lease is entered into between a landowner and the Department of Agriculture that restricts the landowner (or lessee) from farming, draining, filling, burning, or otherwise disturbing wetlands, and in exchange for agreeing to these restrictions imposed on the use of the land, the landowner receives financial compensation in the form of annual payments from the Department of Agriculture.[451] Farming activities and operations that do not disturb or impact wetlands at other times of the year are typically allowed and permitted by the lease agreement. The Water Bank Act also requires that these wetland conservation efforts be coordinated with the Department of the Interior, state and local officials, and private conservation organizations**,** and that the Secretary of Agriculture formulate and carry out a program to prevent the serious loss of wetlands and to preserve, restore, and improve these lands.[452] Because

[438] 16 U.S.C. §§ 1131–36.

[439] 16 U.S.C. §§ 1131(c).

[440] 16 U.S.C. §§ 1133(c).

[441] FHWA Environmental Guidebook, *supra* note 396, at Tab 6.

[442] *Blumm, supra* note 256, at 27.

[443] 16 U.S.C. § 1132(c).

[444] RUTH MUSGRAVE & JUDY FLYNN-O'BRIAN, FEDERAL WILDLIFE LAWS HANDBOOK WITH RELATED LAWS 536 (1998).

[445] 16 U.S.C. § 460*l*-4.

[446] 16 U.S.C. § 460*l*-8(d).

[447] 16 U.S.C. § 460*l*-8(f)(3); *see* BLUMM, *supra* note 256, at 27.

[448] Maryland Conservation Council, Inc. v. Gilchrist, 808 F.2d 1039, 1043 (4th Cir. 1986).

[449] 16 U.S.C. §§ 1301–11.

[450] MUSGRAVE & FLYNN-O'BRIAN, *supra* note 444, at 508.

[451] 16 U.S.C. §§ 1302, 1303, and 1304.

[452] 16 U.S.C. §§ 1301, 1309.

the Water Bank Act, through enforceable lease agreements, creates publicly-owned interests in lands containing various environmental values such as wetland and wildlife values, Section 4(f) of the DOT Act is implicated by a transportation project through wetlands located in a protected and restricted water bank area.[453]

E. HISTORIC PRESERVATION LAW

1. NHPA*

a. Section 106

i. Federal Agency Duty.—The NHPA seeks to preserve the historical and cultural foundations of the Nation and to increase the role of the Federal Government in historic preservation programs and activities.[454] To this end, the NHPA requires that before authorizing the expenditure of funds or issuing an approval for a federal "undertaking," a federal agency must "take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register."[455] This accounting takes place through a procedure, entailing consultation with state historic preservation officials, known as the Section 106 review process. Many, if not most, transportation projects receiving federal funding or requiring a federal license or permit under the Section 404 NPDES or other environmental program will have the potential to impact structures or places considered to have historical value, and therefore will entail NHPA review. This subsection will examine the responsibilities of the federal agency under NHPA, discuss how the courts have interpreted and applied NHPA, and draw comparisons between NHPA and the NEPA.

ii. "Undertaking" Trigger.—In order for the NHPA review process to be activated there must be a federal "undertaking." The statute defines "undertaking" as:

> 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.[456]

The definition in the regulations of the Advisory Council on Historic Preservation (Council) is identical to the statutory definition.[457]

The Council has revised the definition of "undertaking" on two occasions. In 1992, the statutory definition of "undertaking" was amended to include "[projects, activities, and programs] subject to State or local regulation administered pursuant to a delegation or approval by a Federal agency."[458] On January 11, 2001, additional revisions to the rules became effective.[459] The new rules clarified the definition of "undertaking" "to better state the premise of the rule that only an undertaking that presents a type of activity that has the potential to affect historic properties requires review."[460] Under the 2001 revision, the analysis to determine if there is an undertaking is whether the type of undertaking has the potential to affect historic properties, rather than whether the circumstances of each particular undertaking has the potential to affect historic properties.[461] At this stage of inquiry, the presence of historic properties must be assumed.[462]

Prior to the amendments, courts were on their own to interpret the meaning of an "undertaking." For example, in *Weintraub v. Rural Electrification Administration, U.S. Department of Agriculture,*[463] the Federal District Court in Pennsylvania held that Congress had intended an undertaking to mean situations where "federal spending for actions or projects…would otherwise destroy buildings on the National Register."[464] The court in *Weintraub* arrived at this strict interpretation of the statute in reviewing a situation where the Department of Agriculture had lent money to a co-op for building residences, but not for building a parking lot that would require the destruction of a historic building. The court noted that because the government had not lent money specifically for the purpose of constructing parking, the activity was not a federal undertaking under the NHPA.[465]

Other courts, such as the District Court for the District of Columbia,[466] interpreted "undertaking" to mean that the federal agency must have a direct involvement, including such examples as "projects directly undertaken by the agency, projects supported by federal loans or contracts, projects licensed by the agency or projects proposed by the agency for

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[453] *See* § 3B and BLUMM, *supra* note 256, at 27.

[*] This section was prepared with the assistance of Kenneth C. Baldwin, Esq., of Robinson & Cole LLP.

[454] 16 U.S.C. §§ 470(b)(2) and (7).

[455] 16 U.S.C. § 470f.

[456] 16 U.S.C. § 470 W(7).

[457] 36 C.F.R. § 800.16.

[458] Pub. L. No. 102–575, 65 Fed. Reg. 77699 (Dec. 12, 2000).

[459] *Id.* at 77698.

[460] *Id.* at 77700, para. 4.

[461] *Id.*

[462] ACHP, Section 106 Regulations; Section by Section Questions and Answers, www.achp.gov/106q&a.html.

[463] Weintraub v. Rural Electrification Admin., U.S. Dep't of Agriculture, 457 F. Supp. 78 (M.D. Pa. 1978).

[464] *Id.* at 91.

[465] *Id.*

[466] Techworld Development Corp. v. D.C. Preservation League, 648 F. Supp. 106 (D.D.C. 1986).

congressional funding or authorization." The court concluded that the regulations require that "the federal agency be substantially involved in the local project, either with its initiation, its funding, or its authorization, before a local project is transformed into a federal undertaking."[467]

State, local, and tribal government action that does not also entail federal funding or approval does not trigger NHPA. This point is well illustrated in *Ringsred v. City of Duluth.*[468] In *Ringsred*, a warehouse was purchased with the assistance of federal funds, but the parking ramp, to be constructed on city-owned land adjacent to the warehouse, was city-funded. While a part of the same project, the fact that federal funds were not used for the parking ramp construction meant that application of NHPA (or NEPA) was not required.[469]

An issue of continuing controversy between the FHWA and the Council is FHWA's responsibility for material "borrow" sources. In earth moving construction, borrow fill material is "the fill acquired from a source outside the required cut area."[470] FHWA treats the use of borrow material as a product, rather than a site-specific resource, and therefore believes that Section 106 is not triggered. The case exemplifying this controversy emanates from the Holbrook Interchange project in Arizona. FHWA was to provide funding to the Arizona Department of Transportation (ADOT) for the project. ADOT contracted with a private company to obtain the fill material from a private commercial (non-governmental) source near Woodruff Butte. Woodruff Butte is a geological formation and a traditional cultural property for the Navajo, Hopi, and Zuni Tribes, and is eligible for inclusion on the National Register. The Council and the Tribes believed that the removal of construction fill materials from Woodruff Butte had a damaging effect on the site. The Hopi Tribe brought an action to enjoin the construction of the Holbrook Interchange project. The court issued a temporary injunction forbidding FHWA from distributing funds to ADOT. The project went forward without federal involvement. Since federal funding was not being used, the project was no longer a federal "undertaking" and was therefore beyond the scope of Section 106. The Council and the court in the Hopi case found that the use of material "borrow" sources can contribute to the loss of historic resources.[471] The Council has not yet issued a formal policy statement on the issue of material borrow sources and the applicability of Section 106.

iii. The Section 106 Process: Procedural Obligations.—The timing of the Section 106 process is one that can be most disruptive for a transportation agency unless the process is initiated early.[472] The NHPA requires that the process be initiated "prior to the expenditure of any Federal funds or prior to the issuance of any license."[473] If the project involves "ground disturbing activities," the Section 106 process needs to be completed before the project begins.[474] Thus, a development project could be delayed while the Federal agency completes the Section 106 process.

Not all undertakings trigger the procedural obligations of Section 106. The Council has acknowledged that if an undertaking has no potential to affect historic properties it does not trigger Section 106 obligations. Where the undertaking does trigger Section 106, the regulations set forth the specific steps in the process. The specific steps include the initial determination of whether there has been a federal agency "undertaking," research as to the existence of historic resources within the project's area of potential impact, an indepth consultation process with the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO), and the final determination of whether there will be an effect on the historic property. If the effect is adverse, the regulations describe how to deal with the potential impact through further proceedings intended to culminate in an MOA between the parties.

The initial step in the Section 106 process involves the determination of whether there has been a federal agency undertaking as defined by the regulations and as described above.[475] The determination of whether an "undertaking" exists is one for the agency official to make. It is not one to be made by the Council. However, the Council may render advice on the subject.[476] If the action is an undertaking, the next step is to determine whether there will be an effect on a place of historic significance. This involves an extensive literature search as well as consultations with state and tribal authorities.

If a federal undertaking exists and it affects a place of historic significance, the Section 106 review process requires a determination of whether the place or object of historic significance is one that is listed or eligible for inclusion on the National Register of Historic Places (National Register). Archeological sites, as well as more traditional historic and cultural places, must also meet the eligibility criteria for the National Register in order

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[467] *Id.* at 120.

[468] Ringsred v. City of Duluth, 828 F.2d 1305 (8th Cir. 1987).

[469] *Id.*

[470] MEANS ILLUSTRATED CONSTRUCTION DICTIONARY 61 (1985).

[471] ACHP Web site, "Arizona: Construction of Holbrook Interchange (Woodruff Butte)," http://www.achp.gov/casearchive/cases4-99AZ.html (Apr. 1999).

[472] Walter E. Stern & Lynn H. Slade, *Effects of Historic and Cultural Resources and Indian Religious Freedom on Public Lands Development: A Practical Primer*, 35 NAT. RESOURCES. J. 133, at 145 (1995).

[473] 16 U.S.C. § 470f (emphasis added).

[474] Stern & Slade, *supra* note 472, at 146.

[475] 36 C.F.R. § 800.3(a).

[476] 65 Fed. Reg. 77718.

to lead to further obligations under the Section 106 process. In cases where archeological sites and sites that are the location of a prehistoric or historic event "cannot be conclusively determined because no other cultural materials were present or survive, documentation must be carefully evaluated to determine whether the traditionally recognized or identified site is accurate."[477]

Once the properties of historic or cultural significance that are on, or would be eligible to be on, the National Register, are identified, the next step is to determine whether the proposed activity will result in adverse effects to those historic or cultural properties. If the type of activity is one that will have no potential adverse effects on historic properties, then the agency has fulfilled its Section 106 requirements. If, however, there is potential to cause adverse effect, the agency must undertake the remainder of the Section 106 review process. This includes consultations with the SHPO/THPO to explore alternatives to the proposed project. The Council may be invited to comment during this procedure and may step in to resolve conflicts between the agency and SHPO/THPO.

Like NEPA, the Section 106 process is procedural, requiring the agency to look at all alternatives when making a decision. The agency must be able to support its decision with the record, but the NHPA, like NEPA, does not impose a substantive decision-making burden on the agency. Under Section 106, an agency, when making a final decision about the undertaking, must consider whether that decision will affect places or objects of historic and cultural significance. The agency needs to identify places or objects, examine their significance, and look at alternatives to the proposed project. However, courts have held that the agency need not choose the alternative determined by the Council to have the least amount of impact on the historic object or place.[478] For example, in *Concerned Citizens Alliance v. Slater*, the Third Circuit held that the fact that the Council and the Department of Transportation did not agree on the alternative that posed the least harm to an historic district did not mean that the DOT's decision was arbitrary and capricious.[479]

The agency is not limited to the NHPA program, as described in the regulations, in formatting its Section 106 review. In fact, the NHPA regulations encourage coordination with other review programs such as NEPA, the Native American Graves Protection and Repatriation Act, American Indian Religious Freedom Act, the Archeological Resources Protection Act, and agency-specific legislation, such as Section 4(f) of the Department of Transportation Act.[480] The preparation of only one document to fulfill statutory environmental requirements can make the process more streamlined and cost-effective. In order to further streamline the process, the agency official conducting the review may use information gathered and developed for other reviews in formulating the NHPA review.[481] The NHPA Section 106 process is outlined in more detail below.

iv. Research and Initial Consultation.—The first step in the Section 106 process involves a literature search and consultation with the SHPO/THPO and other interested parties in order to identify historic places and potential effects of a project or activity. The initial consultation process is intended to determine the area of a project's potential effect; identify the historic properties; and evaluate the significance of those properties.[482]

(1) Consult with SHPO.—There are several key players involved in a Section 106 review process, including the federal agency official responsible for compliance with Section 106, SHPO/THPO, Council, and individuals or organizations with an interest in the effects of the proposed project. The agency head must consult with the SHPO/THPO for the geographic area where the project is located. The federal agency may, by notice to the SHPO/THPO, authorize an applicant or group of applicants (such as a state department of transportation) to initiate consultation; however, the federal agency remains legally responsible for all resulting findings and determinations.[483] In the event that a project will involve more than one state, the SHPO will appoint a lead officer for the project.[484] The agency must also invite other interested individuals and organizations to participate in the process as consultants.

(2) Literature and Information Research.—The agency is obligated to conduct a literature and information search on already identified historic and cultural properties and properties that might have historic or cultural significance.[485]

(3) Consult with Local Governments, Tribes, or Organizations.—The consultation process requires the agency to seek information from consulting parties or other individuals or organizations likely to have knowledge of, or concerns with, cultural or historic properties in the area.[486] The agency must also gather information from native tribes or Hawaiian organizations if applicable, to determine which properties have cultural or religious significance.

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[477] ADVISORY COUNCIL ON HISTORIC PRESERVATION, HOW TO APPLY THE NATIONAL REGISTER CRITERIA FOR EVALUATION (1995).

[478] *See, e.g.,* Concerned Citizens Alliance, Inc. v. Slater, 176 F.3d 686 (3rd Cir. 1999).

[479] *Id.* at 690–91.

[480] 36 C.F.R. § 800.3(b).

[481] 36 C.F.R. § 800.3(b).

[482] 36 C.F.R. §§ 800.4(a), (b), and (c).

[483] 36 C.F.R. § 800.2(c)(4); *See* Memorandum from Gloria M. Shepherd to FHWA Division Administrators, January 10, 2001, at http://wwwcf.fhwa.dot.gov/environment/sec106.htm.

[484] 36 C.F.R. § 800.3(c)(2).

[485] 36 C.F.R. § 800.4(a)(2).

[486] 36 C.F.R. §§ 800.4(a)(3) and (4).

v. Inventory and Eligibility of Historic Properties.—In order to trigger the remainder of the Section 106 process after the initial consultation and literature review, the properties identified must meet the criteria of eligibility for the National Register of Historic Places. The agency official must make a "reasonable and good faith effort to carry out appropriate identification efforts," [487] and must apply the National Register criteria to determine their eligibility.[488] Appropriate identification efforts may include "background research, consultation, oral history interviews, sample field investigation[s], and field survey[s]."[489]

The criteria for National Register eligibility are:

> The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and
>
> that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> that are associated with the lives of persons significant in our past; or
>
> that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> that have yielded, or may be likely to yield, information important in prehistory or history.[490]

Generally, sites that are less than 50 years old are not eligible for National Register status unless they are an integral part of a district or meet other specific criteria.[491]

(1) "Reasonable and Good Faith Effort."—When identifying historic properties, the agency official must "make a reasonable and good faith effort to carry out appropriate identification efforts."[492] The effort will vary depending on the scope of the search needed. The regulations do not provide a clear standard for what is meant by a "reasonable and good faith effort." However, the regulations provide examples and guidance on what is included in such an effort. For example, the agency may undertake "background research, consultation, oral history interviews, sample field investigation[s], and field survey[s]"[493] to assist it in determining whether there are historic properties that would be affected. The Council advises agencies to undertake identification efforts in good faith and with "an honest effort to meet the objectives of Section 106."[494]

In *Pueblo of Sandia v. United States*,[495] the Tenth Circuit Court of Appeal found that "a mere request for information is not necessarily sufficient to constitute the 'reasonable effort' Section 106 requires."[496] The Tenth Circuit found that the information provided to the Forest Service by the tribes was sufficient to require the Forest Service to conduct further investigations and fulfill the "good faith effort" requirement.[497] The court also held that the agency must share its findings with the SHPO/THPO. The Forest Service needed to provide the SHPO with copies of the affidavits and other information it received prior to the consultation. The court noted that without access to the available information, the SHPO is denied the opportunity to give an informed opinion.[498] "Thus, 'consultation'…mandates an informed consultation."[499]

The case of *Pueblo of Sandia v. United States* can be compared with *Enola v. United States Forest Service*.[500] In *Enola*, the court held that the Forest Service had made a "reasonable and good faith effort" to identify traditional cultural properties[501] when it used "field inventories to identify sites that had been traditionally used by Native Americans, reviewed existing historic data, sought comments from the interested public, assembled a committee to determine whether historic properties existed on Enola Hill, and documented numerous communications with the Oregon State Historic Preservation Officer."[502]

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[487] 36 C.F.R. §§ 800.4(b)(1).

[488] 36 C.F.R. §§ 800.4(c)(1).

[489] 36 C.F.R. § 800.4(b)(1).

[490] 36 C.F.R. § 60.4.

[491] *Id*.

[492] 36 C.F.R. § 800.4(b)(1).

[493] *Id.*

[494] ACHP Web site, Section 106 Regulations, Section-by-Section Questions and Answers, http://www.achp.gov/106q&a.html.

[495] Pueblo of Sandia v. United States, 50 F.3d 856 (10th Cir. 1995).

[496] *Id.* at 860.

[497] *Id. See* Branford J. White, *Historic Preservation and Architectural Control Laws*, URB. LAW. 879, 880 (1996).

[498] *Id.*

[499] *Id.*

[500] 832 F. Supp. 297 (D. Or. 1993), *vacated for mootness*, 60 F.3d 645 (9th Cir. 1995).

[501] 60 F.3d 645, *see* White, *supra* note 497, at 881.

[502] *Id.*

vi. Assessment of "Effect."—After determining which properties will be affected, the agency official must apply the criteria of "adverse effect" to the historic properties in consultation with the SHPO or THPO.[503] Once the criteria for adverse effect have been applied, the agency official will determine if there will be an adverse effect. If there is a finding of no adverse effect, the agency official will notify all parties and provide documentation of the finding.[504] If the SHPO/THPO agrees with the finding, the agency may proceed with its undertaking.[505] If the SHPO/THPO or any other consulting parties disagree with the finding, the agency shall either consult with that party to resolve the disagreement or the agency may request that the council review the findings.[506]

(1) Criteria for Determination of Adverse Effect.—The regulations provide the criteria for determination of adverse effect. "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."[507] Adverse effects may include reasonably foreseeable effects that occur later in time or may be more distant or cumulative.[508] The regulations also provide examples of the types of undertakings that would result in an adverse effect. According to the regulations, adverse effects can result from physical destruction or alteration of a property (including restorations, rehabilitation, repair, maintenance, and other activity that is not consistent with the Secretary of the Interior's standards); removal of the property from its historic location; change in the character of the property's use or of physical features within the setting that contribute to historic significance; introduction of visual or audible elements; neglect; and transfer of lease or sale of property out of federal control without preservation restrictions.[509]

vii. Resolution of Adverse Effect.—If an adverse effect is found, the regulations require further consultation between the agency official and the interested parties. Ideally, an agreement is reached and the parties enter into an MOA. If no agreement is reached, the Council is invited to comment and those comments are to be taken into account by the agency official in reaching his or her final determination. The process for this consultation and review is laid out in the sections below.

viii. Consultation with Advisory Council and SHPO.—In order to resolve a situation where the agency undertaking will result in adverse effect to the historic property, the agency official shall first consult with the SHPO/THPO "to develop and evaluate alternatives or modifications to the undertaking that could avoid, minimize or mitigate adverse effects on historic properties."[510] The agency official must notify the Council of the adverse effect finding. Other individuals and organizations may be invited as consulting parties to offer their comments.

ix. Public Comment.—The process to resolve adverse effects is a relatively open one. The agency official is required to make all relevant information available to the public. Members of the public are afforded an opportunity to make comments and "express their views on resolving adverse effects of the undertaking."[511]

x. Memorandum of Agreement.—If the agency official and the SHPO/THPO agree on a resolution of the adverse effects they will enter into an MOA outlining the resolution. A copy of the MOA is then submitted to the Council. The submittal needs to occur before the agency approves the undertaking. If the agency official and the SHPO/THPO fail to agree on a way to resolve the adverse effects, or the SHPO/THPO terminates the consultation for failure to come to an agreement, the agency official shall request that the Council join the consultation and may enter into an MOA with the Council. The regulations leave to the Council's discretion whether to join the consultation regardless of whether the SHPO/THPO and agency official have come to an agreement. If the Council decides not to join, it will notify the agency official and offer comments.[512] The agency official must take these comments into account when reaching its final decision on the undertaking and must report that decision to the Council.[513] Whether or not the resolution involves the Council or the SHPO/THPO, the end product of the resolution is an MOA.

xi. Advisory Council on Historic Preservation Review and Comment.—If the Council joins the consultation, the resolution is documented in an MOA. The MOA serves as evidence of the agency's compliance with Section 106.[514] The MOA is considered an agreement with the Council for the purposes of NHPA Section 110(1).[515]

b. Judicial Review of NHPA Compliance

"Highways and historic districts mix like oil and water, and when a new highway must go through an historic area, historic preservationists and federal and state highway officials are likely to clash over the preferred route."[516] Notwithstanding the extensive regulatory procedures required by Section 106, the

[503] 36 C.F.R. § 800.5.

[504] 36 C.F.R. § 800.5(c).

[505] 36 C.F.R. § 800.5(c)(1).

[506] 36 C.F.R. § 800.5(c)(2).

[507] 36 C.F.R. § 800.5(a)(1).

[508] *Id.*

[509] 36 C.F.R. §§ 800.5(a)(2)(i)–(vii).

[510] 36 C.F.R. § 800.6(a).

[511] 36 C.F.R. § 800.6(a)(4).

[512] 36 C.F.R § 800.6(b).

[513] 36 C.F.R. § 800.7(c)(4).

[514] 36 C.F.R. § 800.6(c).

[515] *Id.*

[516] Concerned Citizens Alliance, Inc. v. Slater, 176 F.3d 686, 690 (3th Cir. 1999).

Section 106 review, like NEPA, is purely procedural. The procedure requires that the agency put together an administrative record supporting its decision. As illustrated by judicial review of compliance with NHPA, the statute has very little substantive bite.

It is important to take into consideration those situations in which the NHPA is applicable to highway, bridge, and other transportation projects, and those situations in which it is not applicable. The NHPA has been applied to highway and other construction projects, without elaboration as to how it applies, in cases from the Second Circuit,[517] Third Circuit,[518] Fourth Circuit,[519] Fifth Circuit,[520] Sixth Circuit,[521] and Ninth Circuit.[522] Some more elaborate explanations were provided for the application of NHPA to highway and other construction projects in *Thompson v. Fugate.*[523] In *Thompson*, the District Court for the Eastern District of Virginia held that the NHPA was applicable to the construction of a state highway through a site included in the National Register. The District Court for the Eastern District of Virginia enjoined the Secretary of Transportation and the state highway authority from taking steps leading to the construction of the highway. The court noted that the highway has been considered in segments when seeking federal approval for its location, but for the purposes of NHPA the highway needed to be reviewed in its entirety and could not be segmented.

In a more recent case, *The City of Alexandria, Va. v. Slater*,[524] the D.C. Circuit Court of Appeals held that FHWA had fulfilled its NHPA requirement to ascertain the existence of all the historic properties on or eligible for inclusion on the National Register that might be affected by a proposed 12-lane bridge to be constructed near such properties.[525] The NHPA applied to FHWA in this situation and required that FHWA perform the Section 106 analysis and comply with the Department of Transportation's (DOT) requirement to do all possible planning to minimize harm to the protected properties. The case was initially brought in District Court for the District of Columbia. The City of Alexandria and FHWA settled their case with a compromise regarding the volume of traffic that would be initially permitted to use the bridge (capacity for 12-lanes of traffic, initially marked for only 10). Intervenors in the suit, including local organizations and the National Trust for Historic Preservation, however, continued the case. In April of 1999 the District Court for the District of Columbia held that FHWA failed to complete its identification of the historic properties under NHPA. Because this failure occurred prior to the issuance of the record of decision (ROD) required by NEPA, the court held that FHWA could not have undertaken all planning to minimize harm as required by Section 4(f) of the Department of Transportation Act. This opinion, that all reasonably foreseeable properties and impacts must be identified prior to a final decision by the agency, had "troubling implications for programmatic and process-oriented agreements that have been routinely executed by the Council."[526]

The D.C. Circuit Court of Appeals reversed this decision, upholding the MOA and allowing the project to go forward. The MOA was in controversy because it allowed for a phased approach to identifying the impacts in the project's area of potential effects, while deferring the identification of a small number of ancillary activities until such time as prerequisite engineering work could be carried out during the process of final design. The D.C. Circuit Court of Appeals overruled the district court in holding that the FHWA "did not postpone the identification of these properties 'merely to avoid having to complete its 4(f) [DOT] and 106 analyses,'…the precise identification of these sites requires 'substantial engineering work' that is not conducted until the design stage of the project."[527] The Circuit Court further noted that the "Council regulations explicitly encouraged flexible, stages planning in the section 106 process."[528]

In contrast to *Thompson* and *The City of Alexandria*, the NHPA has been held inapplicable to other undertakings involving highway and other construction. For example, in *Town of Hingham v. Slater*, the NHPA did not apply to a commuter rail line, which was one of six alternatives proposed and analyzed in an environmental study, when no federal funding had ever been applied for or collected.[529] Another case involving the rerouting of a railroad held that where an action is undertaken by private actors and there is no ongoing federal involvement, the court

[517] Cobble Hill Ass'n v. Adams, 470 F. Supp. 1077 (E.D.N.Y. 1979).

[518] Philadelphia Council of Neighborhood Organizations v. Coleman, 437 F. Supp 1341, *motion denied,* 451 F. Supp. 114, *and aff'd without op.,* 578 F.2d 1375 (3rd Cir. 1977).

[519] Coalition for Responsible Regional Dev. v. Coleman, 555 F.2d 398 (4th Cir. 1977).

[520] Inman Park Restoration, Inc. v. Urban Mass Transp. Admin., 414 F. Supp. 99 (N.D. Ga. 1975), *aff'd,* 576 F.2d 575 (5th Cir. 1975).

[521] Nashvillians against I-440 v. Lewis, 524 F. Supp. 962 (M.D. Tenn. 1981).

[522] Benton Franklin Riverfront Trailway & Bridge Comm. v. Lewis, 529 F. Supp. 101 (E.D. Wash. 1981), *aff'd in part and rev'd in part on other grounds,* 701 F.2d 784 (9th Cir. 1981).

[523] 347 F. Supp 120 (E.D. Va. 1972).

[524] City of Alexandria, Va. v. Slater, 46 F. Supp. 2d 35 (D.D.C. 1999), *rev'd,* 198 F.3d 862, *cert denied by* Alexandria Historical Restoration and Preservation Comm'n v. FHWA, 531 U.S. 820, 121 S. Ct. 61, 148 L. Ed. 2d 27 (2000).

[525] 198 F.3d at 873

[526] ACHP, Archive of Prominent Section 106 Cases: Virginia-Maryland: Replacement of the Woodrow Wilson Bridge, www.achp.gov/casearchive/cases3-00VA-MD.html (March 2000).

[527] City of Alexandria, 198 F.3d at 873.

[528] *Id.*

[529] Town of Hingham v. Slater, 98 F. Supp. 2d 131 (D. Mass. 2000).

is not required to order a federal agency to undertake the Section 106 review process.[530] In *James River v. Richmond Metropolitan Authority,*[531] the District Court for the District of Virginia held that indirect federal funding was not sufficient to make Section 106 applicable to the construction of an Interstate expressway as part of an Interstate network. The fact that federal funds had been used to finance other expressways in the system did not make the project at issue fall within the purview of Section 106. In *Citizens for Scenic Severn River Bridge, Inc. v. Skinner*, the Fourth Circuit Court of Appeals held that NHPA does not apply when the construction of a new bridge would damage an old bridge that, during the planning process was not, and never had been, recognized as protected under the National Register.[532] In another case, the construction of a local bridge, which was not under the direct or indirect jurisdiction of FHWA, did not require FHWA's compliance with Section 106 even though FHWA participated in and approved the EIS.[533] The court noted that the project was not under the "direct or indirect jurisdiction" of FHWA.[534]

When there is a federal undertaking to which the NHPA applies, the court will examine whether the federal agency has complied with the requirements of Section 106. The statute requires the preparation of an administrative record on which the agency bases its decision. A case that illustrates the successful use of an administrative record to support an agency decision is *Concerned Citizens Alliance v. Slater*.[535] In this case, the administrative record supported the finding of FHWA that the selected bridge replacement alternative, involving an underpass along a street through a historic district as opposed to continuing to route traffic along the main commercial street, would minimize harm to a historic neighborhood district. The alternative chosen eliminated the traffic through the most beautiful and historically important intersection in the district. The Secretary of Transportation took into account all the factors involved, including benefits to the alternative historic street, and that the alternative would not abate traffic problems on either street. Noise, exhaust, and vibration were taken into consideration, as was the fact that one historic structure would need to be destroyed under each alternative.

In *Concerned Citizens Alliance, Inc. v. Slater*, the Third Circuit also addressed the question of the level of deference owed to the Council's comments under Section 106. The citizens group opposed the placement of the bridge, which directed traffic through a historic district, and sued FHWA and PennDOT alleging that the defendants failed to take into account the comments of the Council and that its decision was arbitrary and capricious.[536] The Court held that although the agency must take into consideration the comments of the Council under Section 106, those comments are advisory only and the agency is not bound by the comments when making its decision.[537] The agency must make it clear in the record that the comments were taken into consideration and were "taken seriously,"[538] but the agency need not agree with the Council's determination of what constitutes the "least harm alternative."[539]

Courts have also addressed the method of obtaining information and resulting consent from interested parties. The Morongo Band of Mission Indians claimed that the FAA was required to obtain the Tribe's consent prior to implementing its proposed arrival enhancement project for the Los Angeles airport.[540] The Ninth Circuit held that consent of the Tribe was not required where the federal agency found no adverse effects of the project.[541] The court distinguished *Pueblo of Sandia v. United States*, discussed above, which held that a reasonable effort to identify properties required more than a mere request for information. As in *Pueblo*, in *Morongo Band of Mission Indians* the FAA had requested information and then not followed up with further inquiry and research.[542] However, the *Morongo Band of Mission Indians* court reasoned that the FAA did not follow up because the undertaking would have no impact on the property, whether it was a historic property or not.[543]

In some cases, courts have been willing to overlook agency lapses in following the procedural requirements of FHWA. In *National Indian Youth Council v. Watt*, the Tenth Circuit Court of Appeals overlooked the Department of the Interior's failure to comply with the Advisory Council's regulations where the consulting parties made a 'good faith, objective, and reasonable effort to satisfy NHPA'."[544] The court found that a failure to adhere to timing requirements relating to the designation of archeological sites was a "technicality" that did not affect the agency's ultimate decision.

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[530] Gettysburg Battlefield Preservation Ass'n v. Gettysburg College, 799 F. Supp. 1571 (M.D. Penn. 1992).

[531] 359 F. Supp. 611 (E.D. Va. 1973).

[532] *See* Citizens for Scenic Severn River Bridge, Inc. v. Skinner, 802 F. Supp. 1325 (D.C. Md. 1991), *aff'd without op.,* 972 F.2d 338 (4th Cir. 1991).

[533] Los Ranchos De Albuquerque v. Barnhart, 906 F.2d 1477 (10th Cir. 1990, *cert. denied,* 112 L. Ed. 2d 1099, 11 S. Ct. 1017).

[534] *Id*. at 1484.

[535] 176 F.3d 686 (3rd Cir. 1999).

[536] *Id*. at 695.

[537] *Id*. at 695–96.

[538] *Id*. at 696.

[539] *Id*.

[540] Morongo Band of Mission Indians v. Federal Aviation Admin., 161 F.3d 569 (9th Cir. 1998).

[541] *Id*. at 582.

[542] *Id*.

[543] *Id*.

[544] National Indian Youth Council v. Watt, 664 F. 2d 220, 227 (C.A.N.M. 1981); *See also* Melissa A. MacGill, Comment, *Old Stuff is Good Stuff: Federal Agency Responsibilities Under Section 106 of the National Historic Preservation Act*, 7 ADMIN. L.J. AM. U. 697, 717 (1994).

Other cases have dealt with how long an agency must oversee a project. For example, the Fourth Circuit found that an MOA entered into by the EPA 10 years earlier, prior to funding a sewer project, did not require the EPA to reinitiate the Section 106 review process when a developer requested a permit to connect additional lines to the sewer. The MOA stated that the parties would submit all revisions of the plan to the SHPO.[545] The court noted that Congress's intent was not to require agencies to "affirmatively protect preservation interests."[546] The scope of the agency's participation in the Section 106 review is limited to its "undertaking." Once the Section 106 review process for the undertaking in complete, the agency is discharged of its duties under NHPA.

There is no suggestion in either the statute or the legislative history that Section 106 was intended to impose upon federal agencies anything more than a duty to keep the Advisory Council informed of the effect of federal undertakings and to allow it to make suggestions to mitigate adverse impacts on preservation interests: it encourages them to do so by facilitating dialogue and consultation.[547]

i. Duty to "Take Into Account."—The federal agency official needs to take adverse affects of an undertaking into account prior to rendering a final decision. The duty to "take into account" the effect of the undertaking involves the step-by-step literature review, consultation, and MOA process described above, as well as a duty to produce an administrative record that documents how the agency made its final determination.[548] All information relating to adverse effects should be documented, including consultations with the SHPO/THPO, Council, or public.[549] "Instances of apparent noncompliance with the statutory duty to 'take into account' are more likely to occur because of disagreement over the scope of the review which a project agency should conduct."[550] For example, in *Hall County Historical Soc. v. Georgia Dep't of Transp.*,[551] the District Court of Georgia held that the agency relied too heavily on the state transportation agency's recommendations rather than undertaking its own research to "take into account" any adverse effects of the project. The court called this action "an improper delegation of Federal Highway Administration responsibilities under the National Historic Preservation Act" and chided the federal agency for its "blind reliance" on the state's findings and determinations.[552]

The agency only has to consider the effects of the proposed project and does not have to consider potential modifications of the project. The District Court of Illinois stated that

> [i]f we were to adopt plaintiffs' argument that HUD must consider completely independent and different proposals for the use of federal funds, i.e. construction outside the historic district or rehabilitation of existing housing within it, then any proposal for construction within a historic district would always have to be rejected since the alternatives would always create less of an impact on the district.[553]

The court rejected this notion.

c. NHPA and NEPA Procedural Comparison

The NHPA regulations contain provisions intended to streamline and simplify the Section 106 process. One critical streamlining factor is the coordination of the NHPA and NEPA processes. The NHPA regulations specifically provide for this coordination.

> An Agency Official may use the process and documentation required for the preparation of an EA/FONSI[554] or an EIS/ROD[555] to comply with section 106 in lieu of the procedures set forth in Secs. 800.3 through 800.6, if the Agency Official has notified in advance the SHPO/THPO and the Council that it intends to do so and [certain] standards are not.[556]

The processes may run concurrently so long as the NEPA process encompasses all the consultations and document reviews that would be required under NHPA. Thus, the processes can be included in one document.[557]

It should be noted that the threshold for EIS review under NEPA and for Section 106 review under the NHPA are not the same. NEPA requires a "major federal action significantly affecting the quality of the human environment," while NHPA simply requires a federal agency "undertaking." Because the two statutes have different triggers for review and encompass different procedural mandates, compliance with one does not automatically mean compliance with the other.[558] Notably, the NHPA regulations provide that "[a] finding of adverse effect on a historic property does not necessarily require an EIS under NEPA."[559]

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[545] Waterford Citizens' Ass'n v. Reilly, 970 F.2d 1287, 1289 (4th Cir. 1992); *See also* MacGill, Comment, *supra* note 544.

[546] Waterford Citizens' Ass'n v. Reilly, 970 F.2d 1287, 1291 (4th Cir. 1992).

[547] *Id*.

[548] ROSS D. NETHERTON, SUPPLEMENT TO LEGAL ASPECTS OF HISTORIC PRESERVATION IN HIGHWAY AND TRANSPORTATION PROGRAMS 14 (Legal Research Digest No. 20, Nat'l Coop. Highway Research Program, 1991).

[549] *Id*.

[550] *Id*.

[551] Hall County Historical Soc. v. Georgia Dep't of Transp., 447 F. Supp. 741 (N.D. Ga. 1978).

[552] *Id*. at 751.

[553] Wicker Park Historic Dist. v. Pierce, 565 F. Supp. 1066, 176 (N.D. Ill. 1982).

[554] EA/FONSI is an environmental assessment/finding of no significant impact under NEPA.

[555] EIS/ROD is an environmental impact statement/record of decision under NEPA.

[556] 36 C.F.R. § 800.8(c).

[557] Stern & Slade, *supra* note 472, at 133, 144 (1995).

[558] *Id.* at 143–44.

[559] 36 C.F.R. § 800.8(a)(1).

d. Section 110

i. Preservation of Historic Properties Owned or Controlled by Federal Agencies.—Section 110 of the NHPA states, "[t]he heads of all Federal agencies shall assume responsibility for the preservation of historic properties which are owned or controlled by such agency"[560] and "undertake, consistent with the preservation of such properties and the mission of the agency,…any preservation, as may be necessary to carry out this section."[561] The federal agency must establish a preservation program and "ensure…(B) that such properties [under the agency's control] are managed and maintained in a way that considers the preservation of their historic, archaeological, architectural, and cultural values in compliance with [Section 106]."[562]

ii. Duty of Agency.—Section 110 raises the question of what, if any, additional duties are imposed on the agency by Section 110. The Federal District Court for the District of Columbia has held that Section 110 "cannot be read to create new substantive preservationist obligations separate and apart from the overwhelmingly procedural thrust of the NHPA."[563] The court held that Section 106 "constitutes the main thrust of NHPA" and that Section 110 does not add any additional preservationist obligations.[564]

When local residents challenged a city's approval of a federally-funded historic hotel renovation project alleging violations of NHPA, the New Jersey District Court examined Section 110(f). Section 110(f) imposes a duty to minimize harm caused by a federal undertaking on national landmarks and to provide the Council with an opportunity to comment.[565] The court held that the defendants had fulfilled the mitigation requirement when the defendants evaluated a range of treatment options in consultation with the SHPO; required the property owner to evaluate alternative designs for additions to the building; and required the property owner to rehabilitate the exterior and interior of the building.[566]

In *Colorado River Indian Tribes v. Marsh*,[567] the Army Corps of Engineers was held to have violated NHPA and its regulations by failing to take the required measures to protect cultural and archeological resources on federal land adjacent to proposed development. The Corps' mistake occurred when it confined the scope of its protective measures to properties that may qualify for the National Register only in the area directly affected by the permit and not the broader, adjacent affected areas.[568]

e. Standing to Sue Under NHPA

The test for who has standing to sue under the NHPA has expanded since the early days of the NHPA litigation. The standard test for standing requires an injury in fact, causation, and redressibility. Some early cases read the NHPA as permitting suits to be brought only when a plaintiff had ownership, title, and legal control in the building to be preserved or where the plaintiff was significantly involved in the administrative process.[569] In 1972, the United States Supreme Court in Sierra Club v. Morton[570] held that an injury in fact did not have to be an economic injury. A plaintiff could maintain standing through the lessened enjoyment and aesthetics of an area that the plaintiff used.[571] Cases following Sierra Club extended standing to neighborhood organizations and individual residents who "use" buildings for "aesthetic and architectural value."[572]

Courts have also addressed whether there is an implied private right of action under NHPA. In *National Trust for Historic Preservation v. Blanck*, the District Court for the District of Columbia held that the agency was subject to the arbitrary and capricious standard of review under the Administrative Procedures Act (APA) because there is no private right of action under the NHPA.[573] The court based its opinion that the APA's arbitrary and capricious standard applies to review of agency decisions under the NHPA on several Circuit court opinions[574] and the NHPA legislative history.[575]

Other cases have granted standing to historic preservation groups under NHPA, thus providing these groups with a private right of action.[576] For example, the

[560] 16 U.S.C. § 470h-2(a)(1).

[561] *Id*.

[562] 16 U.S.C. § 470h-2(a)(2)(B).

[563] National Trust for Historic Preservation v. Blanck, 938 F. Supp. 908, 922 (D.C. 1996).

[564] *Id*. at 925.

[565] Lesser v. City of Cape May, 110 F. Supp. 2d 303, 307 (D. N.J. 2000).

[566] *Id*. at 325–26.

[567] Colorado River Indian Tribes v. Marsh, 605 F. Supp. 1425 (C.D. Cal. 1985).

[568] *Id.* at 1438.

[569] BOWER at 15 (citing South Hill Neighborhood Ass'n, Inc. v. Romney, 421 F.2d 454 (6th Cir. 1969).

[570] Sierra Club v. Morton, 405 U.S. 727 (1972).

[571] *Id.*

[572] *See, e.g*., Neighborhood Dev. Corp. v. Advisory Council on Historic Preservation, 623 F.2d 21, 23–24 (6th Cir. 1980).

[573] National Trust for Historic Preservation v. Blank, 938 F. Supp. 908, 914–15 (D.D.C. 1996) (citations omitted).

[574] *Id.* at 914, *citing* Connecticut Trust for Historic Preservation v. ICC, 841 F.2d 479, 481–82 (2d Cir. 1988); Abenaki Nation of Mississquoi v. Hughes, 805 F. Supp. 234, 239–40 (D. Vt. 1992), *aff'd*, 990 F.2d 729 (2d Cir. 1993); Citizens for the Scenic Severn River Bridge v. Skinner, 802 F. Supp. 1325, 1337 (D. Md. 1991) (applying same review standards to NHPA as apply to NEPA), *aff'd*, 972 F.2d 338 (4th Cir. 1992).

[575] *Id.* at 915.

[576] *See, e.g.,* Vieux Carre Property Owners, Residents & Assocs., Inc. v. Brown, 875 F.2d 453 (5th Cir. 1989), *cert. denied,* 110 S. Ct. 720, 493 U.S. 1020, 107 L. Ed. 2d 739; Waterford Citizens' Ass'n v. Reilly, 970 F.2d 1287 (4th Cir. 1992); Brewery Dist. Soc. v. FHWA, 996 F. Supp. 750 (S.D.

Third Circuit Court in *Boarhead Corp. v. Erickson*[577] held that there is a private right of action under NHPA. The court in this case relied in part on the provision in NHPA awarding attorney's fees to the prevailing party in a case brought by "any interested person to enforce the provisions" of the NHPA.[578] The court additionally relied on other courts of appeals' decisions that had reached the merits of NHPA cases, assuming, therefore, that the plaintiffs in those cases must have met the jurisdictional prerequisites for such a private cause of action.[579]

An additional bar to bringing suits under NHPA is the notion of an "implicit statute of limitations." This issue was raised and held to be invalid by the Ninth Circuit in *Tyler v. Cisneros*.[580] In *Tyler*, the plaintiffs were homeowners in an area surrounding the future site of a low-income housing project. They objected to the Department of Housing and Urban Development's (HUD) and the city's plans on the grounds that the plans were incompatible with the surrounding neighborhood, which was comprised of homes eligible for inclusion on the National Register. The District Court held that the plaintiffs' claims were moot based on the "implicit statute of limitations" under NHPA because HUD had already dispensed funds to the city.[581] This "implicit statute of limitations" arose from the District Court's reading of Section 106, which states that the agency official must undertake the Section 106 review "prior to" the expenditure of any federal funds.[582] The Circuit Court held that the "prior to" language was a control on the agency's action and was not intended to delineate a time period during which plaintiffs must bring a law suit. "An implicit statute of limitations could create a situation where cases are dismissed as unripe before disbursement of federal funds and dismissed as moot after disbursement of federal funds, leaving virtually no window of opportunity for a private enforcement action."[583]

2. The Antiquities Act

The Antiquities Act authorizes the President to declare historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the United States, as national monuments.[584] This may include reservation of the smallest area of land compatible with the proper care and management of the objects to be protected. Only Congress may authorize any further extension or establishment of national monuments in Wyoming.[585] The U.S. Supreme Court in *Cappaert v. United States*[586] ruled that this Act provides protection for both a site and its rare inhabitants and that an underground pool and a unique species of desert fish inhabiting it were objects of historic or scientific interest that qualified the area as a national monument under the Act.

According to Section 433, no person shall appropriate, excavate, injure, or destroy a historic or prehistoric ruin or monument, or an object of antiquity, situated on lands owned or controlled by the United States, without permission of the secretary of the department with jurisdiction over the lands.[587] This prohibition applies regardless of whether the site has been declared a national monument. Thus FHWA or another federal agency is required to notify the Department of the Interior when a highway or other federal project may result in the loss or destruction of an archeological resource, and may be required to undertake a survey or data recovery.[588] Violators are subject to a fine or imprisonment for not more than 90 days, or both.[589]

3. The Archaeological Resources Protection Act

The Archaeological Resources Protection Act[590] establishes a permitting program to regulate the excavation and removal of archaeological resources from public and Indian lands. According to the Act, no person may excavate, remove, damage, or otherwise alter or deface or attempt to excavate, remove, damage, or otherwise alter or deface any archaeological resource located on public lands or Indian lands unless such activity is pursuant to a permit.[591] A permit to remove and excavate archaeological resources can only be issued if the Federal land manager determines that: (1) the applicant is qualified to carry out the permitted activity; (2) the activity is undertaken for the purpose of furthering archaeological knowledge in the public interest; (3) the archaeological resources that are excavated or removed from public lands will remain the property of the United States and such resources and copies of associated archaeological records and data will be preserved by a suitable university, museum, or other scientific or educational institution; and (4) the activity pursuant to such permit is not inconsistent with any

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Ohio 1998) (holding that organizations and individuals had standing to sue the FHWA under NHPA).

[577] Boarhead Corp. v. Erickson, 923 F.2d 1011 (3d Cir. 1991).

[578] *Id*. at 1017 (citing 16 U.S.C.A. § 470w-4.).

[579] *Id*. (*citing* Lee v. Thornburgh, 877 F.2d 1053 (D.C. Cir. 1989); Vieux Carre Property Owners, Residents & Assocs. v. Brown, 875 F.2d 453 (5th Cir. 1989), *cert. denied,* 493 U.S. 1020, 110 S. Ct. 720, 107 L. Ed. 2d 739 (1990); National Center for Preservation Law v. Landrieu, 635 F.2d 324 (4th Cir. 1980) (per curiam); WATCH v. Harris, 603 F.2d 310 (2d Cir.), *cert. denied,* 444 U.S. 995, 100 S. Ct. 530, 62 L. Ed. 2d 426 (1979).

[580] Tyler v. Cisneros, 136 F.3d 603 (9th Cir. 1998).

[581] *Id*. at 607.

[582] *Id*.

[583] *Id*. at 608.

[584] 16 U.S.C. §§ 431–33.

[585] 16 U.S.C. § 431a.

[586] 426 U.S. 128 (1976).

[587] 16 U.S.C. § 433.

[588] FHWA Environmental Guidebook, *supra* note 396, at Tab 6.

[589] 16 U.S.C. § 433.

[590] 16 U.S.C. §§ 470aa–470mm.

[591] 16 U.S.C. § 470ee(a).

management plan applicable to the public lands concerned.[592] The Act also prohibits the removal for transport or sale in interstate commerce of archeological resources from private lands in violation of state and local law.[593] A transportation agency should ensure that its contractor receives the necessary permit and identifies and evaluates the resource, and should endeavor to mitigate or avoid the resource or, where necessary, apply for permission to examine, remove, or excavate the objects.[594]

Transportation projects may encounter and need to properly evaluate archeological resources in accordance with the Act, as well as similar state and local laws. Furthermore, Section 4(f) of the DOT Act also applies when a highway project would result in the disturbance or destruction of protected archaeological resources. FHWA regulations specifically speak to compliance with Section 4(f) in the context of archeological resources.[595] The FHWA regulations, however, conclude that where an archeological resource is important primarily for the information it contains but has minimal value preserved in place, the removal and preservation of the resources will bring the project outside the scope of Section 4(f) and obviate the need to look for prudent and feasible alternatives.[596]

F. MITIGATING THE IMPACT OF TRANSPORTATION PROJECTS ON LAND[*597]

1. Types of Mitigation

Under the classic definition of mitigation adopted by the CEQ under NEPA, "mitigation" includes measures intended to

> (a) Avoid the impact altogether by not taking a certain action or parts of an action;
>
> (b) Minimize impacts by limiting the degree or magnitude of the action and its implementation;
>
> (c) Rectify the impact by repairing, rehabilitating or restoring the affected environment;
>
> (d) Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action;
>
> (e) Compensate for the impact by replacing or providing substitute resources or environments.[598]

It has been said more specifically with respect to the adverse effects of highway location, construction, and operation that there are "essentially five types of mitigation:" "location modifications, design modifications, construction measures, operational conditions, and right-of-way measures and replacement land."[599] These categories, in turn, may be applied in the context of potential impacts on wetlands, floodplains, natural resources and endangered species, noise impacts, impacts on parklands, historic and archaeological resources, and impacts on viewsheds and aesthetic concerns. Requirements to mitigate adverse environmental impacts of a transportation improvement can come from many sources, including federal and state laws and regulations and private agreements between transportation agencies and other parties such as private citizens, environmental groups, or other government agencies.[600]

2. Authority to Mitigate

a. Wetlands, Floodplains, Erosion, and Endangered Species

Wetlands mitigation requirements applicable to transportation and nontransportation projects alike are derived from the EPA regulations implementing the CWA Section 404 dredge and fill permit program. Under these regulations, no wetland may be filled "if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences."[601] The regulations set forth in detail acceptable measures to minimize adverse impacts of dredged or fill material, including those relating to project design and operational controls and practices, as well as mitigation through the construction of compensatory wetlands habitats.[602] These regulations are discussed in more detail in subsection 4A.

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[592] 16 U.S.C. § 470cc(b).

[593] 16 U.S.C. §470ee(c). *See* United States v. Gerber, 999 F.2d 112 (7th Cir. 1993), *cert. denied*, 510 U.S. 1071 (1994) (conviction for possession of Native American artifacts removed from private land by bulldozer operator during highway construction).

[594] FHWA Environmental Guidebook, *supra* note 396, at Tab 6.

[595] *See, e.g.,* 23 C.F.R. § 771.135(g)(1); Town of Belmont v. Dole, 766 F.2d 28 (1st Cir. 1985), *cert. denied*, 474 U.S. 1055. *See* § 2B *supra*.

[596] *Id*.

[597*] This section updates, as appropriate, and relies in part upon RICHARD A. CHRISTOPHER & MARGARET L. HINES, ENFORCEMENT OF ENVIRONMENTAL MITIGATION COMMITMENTS IN TRANSPORTATION PROJECTS: A SURVEY OF FEDERAL AND STATE PRACTICE (Legal Research Digest No. 42, Nat'l Coop. Highway Research Program, 1999); RICHARD A. CHRISTOPHER, AUTHORITY OF STATE DEPARTMENTS OF TRANSPORTATION TO MITIGATE THE ENVIRONMENTAL IMPACT OF TRANSPORTATION PROJECTS (Legal Research Digest No. 22, Nat'l Coop. Highway Research Program, 1992); and MICHAEL C. BLUMM, HIGHWAYS AND THE ENVIRONMENT: RESOURCE PROTECTION AND THE FEDERAL HIGHWAY PROGRAM, 27–30 (Legal Research Digest No. 29, Nat'l Coop. Highway Research Program, 1994).

[598] 40 C.F.R. § 1508.20.

[599] BLUMM, *supra* note 256, at 29.

[600] CHRISTOPHER & HINES, *supra* note 597, at 3, 4.

[601] 40 C.F.R. § 230.10(a).

[602] 40 C.F.R. § 230.70 *et seq*.

FHWA has recently promulgated new wetlands mitigation regulations[603] pursuant to Executive Order No. 11990 and DOT Order No. 5660.1A and reflecting the expanded authority provided by TEA-21 for federal funding of wetlands mitigation efforts. The previous regulations provided for the mitigation of impacts to privately owned wetlands that were caused by "new construction" of federal-aid highway projects.[604] These prior regulations established a hierarchy of mitigation measures that were to be considered in the order listed in order for their cost to qualify for federal funding and preferred mitigating wetland impacts within the highway right-of-way limits. The updated regulations do not clearly establish a hierarchy, but rather encompass a broad range of mitigation alternatives, including compensatory efforts both inside and outside the right-of-way and the restoration of historic wetlands, as well as mitigation banking and in-lieu funding of wetlands efforts.[605]

FHWA regulations addressing policies and procedures for the location of highway encroachments on floodplains prohibit any "significant encroachment" unless it is documented in final NEPA environmental documentation (FONSI or EIS) as the only practicable alternative.[606] "Significant encroachment" includes both direct encroachment of a highway construction or reconstruction, rehabilitation, repair, or improvement activity within the limits of the base flood plain, and direct support of base flood plain development that would (i) have a significant potential for interruption or termination of a transportation facility needed for emergency vehicles or evacuation, (ii) result in a significant risk to life or property loss during a flood, or (iii) cause a significant adverse impact on natural and beneficial floodplain values.[607] The regulations require that location studies for highways include evaluation and discussion of the practicability of alternatives to any significant encroachments.[608] Design standards are intended to minimize the effect of encroachments that cannot be avoided. These address a number of criteria and include the requirement that the design of encroachments be consistent with standards established by FEMA and state and local governmental agencies for the administration of the NFIP.[609] These standards may include the provision of compensatory flood storage.

FHWA regulations include requirements for erosion and sedimentation control on highway construction projects.[610] This includes both permanent and temporary controls consistent with good construction and management practices. FHWA references the American Association of State Highway and Transportation Officials' Highway Drainage Guidelines, Volume III, *Erosion and Sediment Control in Highway Construction*, 1992, or more stringent state standards as guidance for implementing these requirements, and cites to EPA guidance for control of erosion from projects within coastal zone management areas.[611]

The requirements of the ESA impose mitigation obligations through avoiding impacts on listed species or their habitats. These requirements are discussed in detail in Section 4.D.1 and are not repeated here. In furtherance of its obligations under the ESA, FHWA has entered into an agreement with The Nature Conservancy to share information and cooperate in addressing ecological impacts and mitigation in connection with transportation projects.[612]

b. Noise

Section 136 of the Federal-Aid Highway Act of 1970[613] requires the Secretary of Transportation to develop "standards for highway noise levels compatible with different land uses" and prohibits FHWA approval of plans and specifications for any proposed highway project unless they include adequate measures to implement the noise level standards. As importantly, the same section provides that noise mitigation measures may be counted as part of the project for purposes of federal-aid reimbursement. Such measures include but are not limited to the acquisition of additional rights-of-way, construction of physical barriers, and landscaping.

FHWA procedures for Abatement to Highway Traffic Noise and Construction Noise[614] set forth standards for conducting analyses of traffic noise impacts and evaluation of alternative noise abatement measures. The regulations specify that in considering noise abatement measures, "every reasonable effort shall be made to obtain substantial noise reductions" and that the opinions of impacted residents "will be a major consideration in reaching a decision on the reasonableness of abatement measures to be provided."[615] The regulations further provide that noise impacts be identified in an EIS or FONSI.[616] Both construction noise impacts and operational noise impacts are to be considered.[617]

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[603] 65 Fed. Reg. 82913 (December 29, 2000).

[604] 23 C.F.R. pt. 777 (1996).

[605] 23 C.F.R. § 777.9 (April 1, 2001). Mitigation banking is discussed in § 4.A.6., *supra.*

[606] 23 C.F.R. § 650.113(a).

[607] 23 C.F.R. § 650.105.

[608] 23 C.F.R. § 650.111(d).

[609] 23 C.F.R. § 650.115.

[610] 23 C.F.R. § 650.201.

[611] 23 C.F.R. § 650.211.

[612] Cooperative Agreement Between the Federal Highway Administration and The Nature Conservancy, June 6, 1997, available at http://www.fhwa.dot.gov/environment/guidebook/chapters/v1ch17.htm.

[613] 23 U.S.C. §§ 109(h),(i).

[614] 23 C.F.R. pt. 772.

[615] 23 C.F.R. §§ 772.11(d), (f).

[616] 23 C.F.R. § 772.11(e).

[617] 23 C.F.R. §§ 772.9, 772.19.

Noise abatement measures under the FHWA regulations need only be applied to protect existing activities and developed lands or to protect undeveloped lands for which development is planned, designed, and programmed. Furthermore, noise abatement projects on an existing highway that is not being significantly realigned or widened are not eligible for federal funds unless they were approved before November 28, 1995, or are proposed where land development or substantial construction predated the existence of any highway. Federal funding is no longer available for noise abatement on existing highways designed to reduce impact on development that occurred after the highway was approved or right-of-way acquired.[618]

Noise abatement measures that may be incorporated in some or all federally-funded highway projects include the following: traffic management measures, alteration of horizontal and vertical alignments, acquisition of property rights for construction of noise barriers, construction of noise barriers within or outside the right-of-way, acquisition of property rights in undeveloped property to preempt development, and noise insulation.[619] Additional noise mitigation measures may be approved on a case-by-case basis, subject to cost-benefit justification.[620]

FHWA regulations provide that constructive use under Section 4(f) of the DOT Act may be found where projected noise level increases attributable to a project substantially interfere with the use and enjoyment of a noise-sensitive facility protected under Section 4(f), such as an amphitheater, sleeping area of a campground, or historic or park setting where quiet is a significant attribute.[621]

c. Parklands and Historic and Archaeological Resources

Obligations to avoid or mitigate impacts are imposed under Section 4(f) of the USDOT Act,[622] which requires that a transportation project not use publicly owned land of a public park, a recreation area, or a wildlife and waterfowl refuge or historic site of national state or local significance unless (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, refuge, or historic site. Section 4(f) is discussed in more detail in Section 3B. Regulations addressing Section 4(f) compliance provide first for discussion of avoidance alternatives and mitigation measures in the final EIS, FONSI, or a separate 4(f) evaluation.[623]

In addition to obligations to consider historic impact under Section 4(f) for projects that "use" an historic site, review under Section 106 of the NHPA is triggered by transportation projects potentially affecting a historic property listed or eligible for listing on the National Register of Historic Places, even if there is no physical impact on that site. Under Section 106 review, if an adverse effect on a historic property cannot be avoided, the federal agency sponsoring the project must consult with the State Historic Preservation Officer on ways to mitigate the adverse effect and endeavor to reach an MOA as to mitigation measures acceptable to both sides. It may be possible to resolve adverse effects identified during the Section 106 review process with respect to archeological resources by committing to a process of documentation and data recovery.[624]

d. Viewsheds and Aesthetic Concerns

A precursor to the current emphasis on controlling the environmental impacts of highway projects was the passage of the Highway Beautification Act of 1965, which controlled the placement and maintenance of advertising billboard signs along the National Highway System; required the screening or removal of roadside junkyards; and provided for the costs of landscaping, highway rest areas, and the acquisition of land adjacent to the highway right-of-way for the "restoration, preservation, and enhancement of scenic beauty."[625] As amended, the federal landscaping program now includes a requirement for seeding with native wildflowers with a portion of the funding available for landscaping.[626]

In addition, many states have adopted scenic easement acquisition programs or established buffer areas along highways as a means of preserving scenic viewsheds.[627] Under a scenic easement program, the acquiring agency pays a landowner not to build in such a way as to obstruct the view from a highway. The agency acquires only the right to enforce a negative easement, with no physical right of use or access on the property.[628]

Various state programs also require mitigation of landscape impacts. For example, Maryland requires mitigation of forest clearing in excess of 1 acre for highway projects by requiring reforestation on public land on a 1:1 basis or a cash payment if mitigation areas are unavailable.[629]

3. Constraints on the Use of Funding for Mitigation

Federal reimbursement is commonly available for the costs of mitigation measures consistent with FHWA

[618] 23 C.F.R. § 772.13(b).

[619] 23 C.F.R. § 772.13(c).

[620] 23 C.F.R. § 772.13(d).

[621] 23 C.F.R. § 771.135(p)(4).

[622] 49 U.S.C. § 303(c).

[623] 23 C.F.R. § 771.135.

[624] *See* 36 C.F.R. § 800.5(2); 36 C.F.R. § 800.6(b)(i); and Recommended Approach for Consultation on Recovery of Significant Information of Archeological Sites, available at http//www.achp.gov/archguide.html# resolving.

[625] 23 U.S.C. §§ 131, 136, and 319.

[626] One quarter of one-percent of landscaping funds. 23 U.S.C. § 319(b).

[627] These programs are discussed in CHRISTOPHER, *supra* note 597, at 6.

[628] *Id*.

[629] MD. CODE ANN., NAT. RES. ART. 5–103.

requirements. Under ISTEA, federal transportation funds may be used for wetlands mitigation efforts consistent with all applicable federal laws and regulations.[630] FHWA regulations specifically provide for the use of federal aid funds to improve existing publicly owned wetlands and to purchase replacement wetlands outside the right-of-way, where mitigation of wetlands impacts within the right-of-way is not feasible.[631] However federal aid funds may not be used for maintaining or managing wetlands areas on an ongoing basis.[632]

Federal funding may not be used for noise abatement projects on an existing highway that is not being significantly realigned or widened, unless the measures were approved before November 28, 1995, or are proposed for land where a building permit, filing of a plat plan, or similar action took place prior to right-of-way acquisition or construction approval for the original highway.[633] Federal Interstate highway funding may not be used for noise abatement on existing highways that are not being substantially expanded or realigned.[634]

4. Use of Eminent Domain for Mitigation

Whether a transportation agency has the power to condemn property for the purpose of mitigating the environmental impacts of transportation projects depends upon an interpretation of the statutory authority under which it purports to act. There are few reported decisions addressing the use of eminent domain for mitigation of transportation environmental impacts.[635] However, of those jurisdictions that have addressed the issue, there seems to be a tendency to find such authority within even fairly general provisions addressing the construction of a transportation system. This is particularly the case where the mitigation is seen as necessary in order for the project to go forward or to receive federal funding.

Two such cases involve the acquisition of land to replace wetlands disturbed as a result of highway construction. The Pennsylvania court in *Appeal of Gaster*[636] held that the state DOT had legislative authority to acquire land for the replacement of wetlands under a statute that allowed it to acquire property for "the purpose of mitigating adverse effects on other land adversely affected by its proximity to such highway or other transportation facility."[637] The court also found such authority in a general provision authorizing the department to condemn property for "all transportation purposes."[638] The court's reasoning was that the wetlands mitigation in question was required for the state to receive federal funds for the highway construction in question.[639] Further demonstrating the breadth of its holding, the court also dismissed as collateral to the condemnation action the condemnee's challenge to the department's interpretation of the FHWA regulations at 23 C.F.R. 777, which formed the basis for the decision to take the condemnee's property. More recently, the Missouri Supreme Court, in *Missouri Highway and Transportation Commission v. Keeven*[640] held that that state's highway agency had "authority to meet the requirements of the federal government and, in furtherance of those requirements, condemn some land to replace wetlands disturbed by the construction of state highways, where necessary for the proper and economical construction of state highways."[641] In that case, the Army Corps of Engineers required wetlands replacement as a condition of the permit required for the construction of the highway.[642] In contrast to the ruling under Pennsylvania law that the agency's compliance with regulatory requirements pertaining to wetlands mitigation requirements were collateral to the eminent domain proceedings, the Missouri court remanded for trial the question of whether the agency reasonably selected the condemnee's land to fulfill the federal requirements for wetlands replacement.[643]

A California court, similarly, found authority for the use of eminent domain to acquire land for environmental mitigation in connection with the construction of a ferry terminal.[644] The court stated that "the terminal project required the approval of dozens of different agencies" and that these agencies, which included the State Lands Commission, Army Corps of Engineers, and Bay Conservation and Development Commission, "required as a condition of their approval that environmental mitigation measures be taken."[645] The court went on to state that

> [a]lthough such mitigation measures could in some cases involve actions other than the condemnation of property, the ability to mitigate the adverse environmental effects in this manner gives respondent a power and flexibility which do much to effectuate the specific powers referred to in Streets and Highways Code section 27166.[646]

The court therefore held that the agency's "power to condemn for the construction, acquisition and operation of a water transportation system implicitly includes the

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[630] BLUMM, *supra* note 256, at 28.

[631] 23 C.F.R. § 777.9(b).

[632] 23 C.F.R. § 777.11(g).

[633] 23 C.F.R. § 772.13(b).

[634] 23 C.F.R. § 772.13(c).

[635] See the general discussion of this subject in CHRISTOPHER, *supra* note 597, at 7.

[636] 124 Pa. Commw., 314, 556 A.2d 473 (1989); *alloc. den.*, 524 Pa. 633, 574 A.2d 73 (1989).

[637] 556 A.2d 476.

[638] *Id*. at 477.

[639] *Id*.

[640] 895 S.W.2d 587 (Mo. 1995).

[641] *Id*. at 590.

[642] *Id*. at 588–89.

[643] *Id*.

[644] Golden Gate Bridge, Highway and Transp. District v. Muzzi, 148 Cal. Rptr. 197 (Cal. Ct. App. 1978).

[645] *Id*. at 199.

[646] *Id*. at 199, 200.

power to condemn for environmental mitigation." But it cautioned that this power did not extend to condemnation for environmental purposes unrelated to the agency's transportation mandate.[647] These three cases favoring fairly broad interpretations of statutory eminent domain authority can be contrasted to the decision of the Louisiana court that the taking of a permanent servitude in an access canal, the primary purpose of which was public recreation such as hunting and fishing rather than for highway purposes, was not properly incidental to the construction of a highway bridge.[648]

In at least one instance, federal legislation directly addresses the use of eminent domain for transportation mitigation purposes. The Highway Beautification Act specifically provided that nothing therein was to be "construed to authorize the use of eminent domain to acquire any dwelling" or related buildings.[649]

5. Enforcement of Mitigation Commitments

Mitigation efforts may be memorialized in an EIS, construction contract, permit condition, or private agreement. Depending upon how memorialized, they may be enforceable under substantive environmental statutes or, in the case of contractual agreements, through common law actions. NEPA, however, is an ineffective means of enforcing mitigation requirements through court action, because it is a procedural law and simply requires that mitigation measures be identified and considered.[650]

The requirement of Section 4(f)(2)[651] that a project in a protected area not be approved unless there has been "all possible planning to minimize harm" to the protected area "resulting from the use" has been asserted as a basis for challenging a transportation project on the grounds that the project did not provide sufficient assurance of the completion of identified mitigation measures. In *Geer v. Federal Highway Administration*, however, the Federal District Court concluded that the requisite degree of planning for mitigation had been completed and that "exact details of all financial commitments" were not required to satisfy the statutory obligations.[652]

The NHPA incorporates within the Section 106 Process under that statute a requirement that adverse affects of a project on historic properties be addressed through mitigation measures. Such measures are normally memorialized within an MOA among the permitting agency and the SHPO that is concurred in by the Advisory Council on Historic Preservation.[653] The MOA may be enforced by an environmental or other special interest group, in addition to the parties to the agreement itself.[654]

Citizens suit provisions under the CWA provide a vehicle for enforcing permit standards under the Section 402 NPDES program.[655] Most cases hold that a citizen's suit may also enforce provisions of a state discharge permit that exceed the requirements of the federal act and regulations.[656] At least one court has held that citizens may not sue to compel the Army Corps of Engineers to enforce a condition of a Section 404 permit.[657]

Enforcement of CWA requirements by citizens is contemplated in the statute itself.[658] Citizens may sue to enjoin violations of "an emission standard or limitation" that is in effect under an implementation plan relating to TCMs.[659] TCMs may include improved public transportation, high occupancy vehicle lanes, parking limitations, and similar measures.[660]

Mitigation agreements between agencies and private parties in the environmental context are enforceable in accordance with their terms just like any other contract under state law. Such agreements may even be enforceable by third parties who claim a right arising out of a contract between an agency and another entity, although a recent article did not identify any such cases in the environmental context.[661] Nuisance claims may also be the basis for attempts to enforce mitigation agreements or permit conditions.[662]

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[647] *Id*.

[648] State through Dep't of Highways v. Jeanerette Lumber & Shingle Co., Ltd., 350 So. 2d 847 (La. 1977).

[649] Pub. L. No. 89-285, § 305 (Oct. 22, 1965), 79 Stat. 1033.

[650] *See* CHRISTOPHER & HINES, *supra* note 597, at 7-9 and cases cited.

[651] 49 U.S.C. § 303(c).

[652] 975 F. Supp. 47, 78 (D. Mass. 1997). *See* discussion in CHRISTOPHER & HINES, *supra* note 597, at 10.

[653] 16 U.S.C. § 470 *et seq.* and 36 C.F.R. pt. 800.5(e). *See* CHRISTOPHER & HINES, *supra* note 597, at 11.

[654] CHRISTOPHER & HINES, *supra* note 597, at 11, *citing* Weintraub v. Ruckleshaus, 457 F. Supp. 78, 88 (E.D. Pa. 1978).

[655] 33 U.S.C. § 1365(a)(1); Gwaltney of Smithfield v. Chesapeake Bay Found., 484 U.S. 49, 52–53 (1987).

[656] CHRISTOPHER & HINES, *supra* note 597, at 12, n.11 and cases cited.

[657] Harmon Cover Condominium Assoc. v. Marsh, 815 F.2d 949 (3rd Cir. 1987). *Also see* discussion in CHRISTOPHER & HINES, *supra* note 597, at 13.

[658] 42 U.S.C. § 7604(a).

[659] 42 U.S.C. § 7604. *See* discussion in CHRISTOPHER & HINES, *supra* note 597, at 13–14.

[660] 42 U.S.C. § 7408(f).

[661] CHRISTOPHER & HINES, *supra* note 597, at 15.

[662] *Id*.

SECTION 4

ACQUISITION OF SITES

As part of their operations, transportation agencies frequently acquire sites for new rights-of-way and other transportation-related development. In making land takings and purchases agencies should make an effort to avoid environmentally contaminated sites where possible. Where it is not possible or prudent to avoid a contaminated site entirely, appropriate measures should be taken to limit the risks associated with such sites. The complications and potential liabilities attendant to contaminated sites can add significant expense and delay to a transportation project.

This section discusses liability under CERCLA, 42 U.S.C. 9601 *et seq*., and how transportation agencies are affected by CERCLA. It first discusses the basis for CERCLA liability, defenses available to transportation agencies, and regulatory actions that the U.S. EPA may take against transportation agencies. Second, it outlines considerations and strategies available to transportation agencies to discern, mitigate, and avoid, where possible, remediation costs for acquired sites.[1] Third, it discusses how transportation agencies may employ certain CERCLA provisions to recover remediation costs from the persons responsible for contaminating the site in question. The elements necessary for a transportation agency to establish a prima facie case and the defenses parties may raise in response to an agency's cost recovery action are addressed. Finally, this section provides a general discussion of state hazardous release laws that are analogous to CERCLA and that may supplement or expand CERCLA liability.

A. CERCLA LIABILITY AND HOW TRANSPORTATION AGENCIES ARE AFFECTED*

CERCLA liability is imposed under two basic provisions. The first provision permits the EPA and private parties to recover remediation costs from responsible parties.[2] The second provision permits the EPA to issue administrative orders and to seek judicial orders requiring a responsible party to abate a condition that endangers public health, welfare, or the environment.[3]

1. General Discussion—Basis for Transportation Agency Liability

a. Ways Transportation Agencies May be Involved in the CERCLA Statutory Scheme

Transportation agencies may be involved on both sides of CERCLA litigation and liability, as either parties from whom response costs are sought or as plaintiffs seeking recovery of their own response costs from responsible parties. Transportation agencies face the potential for CERCLA liability in connection with two major categories of activity: (1) the acquisition and development of a contaminated site or right-of-way; and (2) the disposition of wastes generated in transportation system operations, including the disposal of potentially contaminated excavation from development projects, as well as historic release of fluids from vehicle maintenance, solvents, pesticides, or other substances.

i. Retroactive.—Liability under CERCLA is imposed retroactively.[4] A responsible party may not avoid liability by asserting that the hazardous wastes remediated were disposed of prior to CERCLA's enactment. Parties may be found liable for disposal actions they undertook long before CERCLA was enacted.

ii. Liability Imposed on Several Classes of Persons.—There are four categories of persons upon whom liability may be imposed:

- Current owners and operators of contaminated sites;
- Former owners and operators who owned and/or operated the sites at the time when hazardous substances were disposed of there;
- Persons who arranged for disposal or treatment of hazardous substances; and
- Persons who accepted hazardous substances for transport to disposal or treatment facility or sites that they selected.[5]

In CERCLA jargon, these categories are referred to, respectively, as owners and operators, former owners and operators, generators or arrangers, and transporters. However, in CERCLA itself Congress did little more than to generally identify the categories of liable parties, and it has been left to the courts to address whether and how a party fits within a particular category.

[1] *See also* § 3.C *supra* for consideration of CERCLA in Transportation Planning.

[*] This Section updates, as appropriate, and relies in part upon the discussion of this subject in DEBORAH L. CADE, TRANSPORTATION AGENCIES AS POTENTIALLY RESPONSIBLE PARTIES AT HAZARDOUS WASTE SITES (Legal Research Digest No. 34, Nat'l Coop. Highway Research Program, 1995).

[2] 42 U.S.C. § 9607. (All references to U.S.C. are West, 1994 ed., unless otherwise stated).

[3] 42 U.S.C. § 9606.

[4] United States v. Northeastern Pharmaceutical & Chem. Co. (NEPACCO), 810 F.2d 726, 732–33 (8th Cir. 1986); United States v. Monsanto Co., 858 F.2d 160, 173–74 (4th Cir.), *cert. denied*, 490 U.S. 1106 (1988); Abbott Lab. v. Thermo Chem., Inc., 790 F. Supp. 135, 138 (W.D. Mich. 1991).

[5] 42 U.S.C. §§ 9607(a)(1)–(a)(4).

iii. Liability is Strict, Joint, and Several.—CERCLA's strict liability scheme has been consistently affirmed by the courts.[6] Consequently, claims that a party was not negligent and that its activities were consistent with standard industrial practices are not a defense to liability.[7]

Liability under CERCLA is joint and several.[8] Even though Congress deleted provisions that imposed joint and several liability before CERCLA's enactment, courts have almost uniformly held responsible parties jointly and severally liable whenever there is any evidence of the commingling of hazardous substances by the different parties.[9]

This concept of joint and several liability significantly strengthens EPA's ability to encourage settlement as opposed to protracted litigation. Because there is joint and several liability, the EPA may sue a few PRPs at a Superfund site and obtain judicial decisions that each party is responsible for the entire cost of remediation at the site. EPA's ability to hold a few PRPs responsible for the cost of remediating an entire site burdens the PRPs not only with the entire remediation cost but also with the prospect of pursuing expensive contribution actions against the parties the EPA chooses not to sue.

CERCLA imposes a very low causation standard. In cost recovery actions brought by a private party, the only causal link required is a demonstration that a release or threatened release of hazardous substances has caused the suing party to incur response costs.[10] At multi-party sites, some courts have held that it does not matter whether a PRP's own waste was released or threatened to have been released as long as some hazardous substances at the site have been discharged.[11]

iv. Limited Statutory Defenses.—A PRP has only limited statutory defenses to CERCLA. These defenses require a PRP to demonstrate that the release of hazardous substances was caused by an "act of God," war, or solely by the act of an unrelated third party.[12]

These defenses are narrowly written and have been narrowly construed by the courts. Exceptional events, rather than ordinary natural occurrences, are required for the "act of God" defense.[13] For the act of war defense, it is unclear whether the release or threatened release must have occurred as a result of actual combat, or whether the defense also extends to releases that can be connected indirectly to war, such as, e.g., increased production demands during wartime.[14] The third party defense is available only when one or more third parties were the sole cause of the release or threatened release.[15] Any involvement, however slight, by the PRP asserting the defense in contributing to the release or threatened release renders the defense unavailable.[16]

For transportation agencies, the third party defense could succeed where the agency acquires a site that was contaminated by a third party prior to agency acquisition. The agency must be able to demonstrate that the contamination resulted from the actions or omissions of a party with which the agency had no "contractual relationship." The definition of "contractual relationship" as it applies to acquisition by eminent domain or through involuntary transfer to a government agency is discussed below.

v. Consistency with the National Contingency Plan.—In selecting and conducting CERCLA response actions, the EPA and private parties must follow the procedures set forth in the National Contingency Plan (NCP). CERCLA requires that response costs incurred by a private party be "consistent" with the NCP and that response costs incurred by the EPA be "not inconsistent" with the NCP.[17] The NCP has been updated several times since it was first promulgated in 1973. The current version of the NCP was promulgated in 1990 and it is more comprehensive than any of its predecessors.

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[6] *See, e.g.*, Levin Metals Corp. v. Parr-Richmond Terminal Co., 799 F.2d 1312 (9th Cir. 1986); United States v. NEPACCO, 810 F.2d 762 (8th Cir. 1986); Gen. Elec. Co. v. Litton Indus. Automation Sys., Inc., 920 F.2d 1415, 1418 (8th Cir. 1990), *cert. denied*, 499 U.S. 937 (1991).

[7] United States v. Conservation Chem. Co., 619 F. Supp. 162, 204 (W.D. Mo. 1985).

[8] O'Neill v. Picillo, 682 F. Supp. 706 (D.R.I. 1988), *aff'd*, 883 F.2d 176 (1st Cir. 1989), *cert. denied,* 493 U.S. 1071 (1990); Monsanto, 858 F.2d at 171–72; Versatile Metals, Inc. v. Union Corp., 693 F. Supp. 1563, 1571 (E.D. Pa. 1988); United States v. Northernaire Plating Co., 670 F. Supp. 742, 748 (W.D. Mich. 1987).

[9] *Id.*

[10] *Id.* There is no quantitative threshold that must be reached before a court may find that a hazardous substance has been released for purposes of CERCLA liability. *See e.g.,* Arizona v. Motorola, Inc., 774 F. Supp. 566, 571 (D. Ariz. 1991); Louisiana-Pacific Corp. v. ASARCO, Inc., 735 F. Supp. 358, 361 (W.D. Wash. 1990); United States v. Nicolet, Inc., 712 F. Supp. 1205, 1207 (E.D. Pa. 1989). *But see* Amoco Oil Co. v. Borden, Inc., 889 F.2d 664, 669 (5th Cir. 1989), *clarified on denial of rehearing,* 889 F.2d 664 (5th Cir. 1990) (imposing a quantity requirement on the imposition of liability in an attempt to limit the scope thereof despite the fact that the "plain statutory language fails to impose any quantitative requirement on the term 'release'").

[11] United States v. Chem Dyne Corp., 572 F. Supp. 802 (S.D. Ohio 1983); New York v. Shore Realty Corp., 759 F.2d 1032 (2d Cir. 1985).

[12] 42 U.S.C. § 9607(b).

[13] United States v. Stringfellow, 661 F. Supp. 1053, 1061 (C.D. Cal. 1987).

[14] *See* United States v. Shell Oil Co., 841 F. Supp. 962, 971–72 (C.D. Cal. 1993) (refusing to extend "act of war" defense to production of petroleum for government contracts under wartime controls.)

[15] 42 U.S.C. § 9607(b)(3).

[16] *Id.*

[17] 42 U.S.C. §§ 9607(a)(4)(A), (B); 40 C.F.R. pt. 300; J.V. Peters & Co., Inc. v. Administrator of the EPA, 767 F.2d 263, 266 (6th Cir. 1985).

b. Policy Behind CERCLA—As Applied to Transportation Agencies

In enacting CERCLA, Congress intended that the cost of remediation be borne by the parties that caused the disposal of hazardous substances and benefited from the industrial practices that resulted in the release of hazardous substances.[18] This policy is not as appropriate for transportation agencies as it is for private companies. A transportation agency is not operating for profit, but to carry out its statutory objective. However, an agency's taxpayers may have benefited from the transportation agency operation that caused the generation of hazardous substances. Where the only other alternative is for the federal Superfund itself to bear the cost of remediation, at least one court has noted that imposition of liability is more appropriate on a transportation agency where taxpayers of the agency have benefited.[19]

Transportation agencies may be disproportionately impacted by CERCLA's joint and several liability.[20] Where one of the PRPs identified in connection with a site no longer exists or cannot be located, the remaining identified PRPs become responsible for that "orphan share." One court has held that because the primary purpose of CERCLA is to encourage remediation, sometimes remediation must be paid for by the party that is least responsible because other, more responsible parties, either lack funds or cannot be found.[21] Because transportation agencies are frequently perceived as having substantial funds, they may be found responsible for some sites where the other responsible parties are insolvent or cannot be located.

2. Acquisition by Eminent Domain—The Condemnation Defense

a. Statutory Basis

A transportation agency that acquires a site by eminent domain may be entitled to a defense to CERCLA. Without the defense, the transportation agency would qualify as current "owner or operator" and therefore be a responsible party under Section 107(a).[22] The eminent domain defense is established within the definition of "contractual relationship." The definition of "contractual relationship," Section 101(35)(A), provides a defense to liability where:

> the real property on which the facility concerned is located was acquired by the defendant after the disposal or placement of the hazardous substance on, in, or at the facility, and one or more of the circumstances described by clause (i), (ii), or (iii) is also established by the defendant by a preponderance of the evidence:
>
> ….
>
> (ii) The defendant is a government entity which acquired the facility by escheat, or through any other involuntary transfer or acquisition, or through the exercise of eminent domain authority by purchase or condemnation.[23]

The reference in Section§ 101(35)(A) to "involuntary transfer or acquisition" may be a redundancy in CERCLA. Government agencies that acquire sites "involuntarily" are already excluded from the definition of owner or operator. "The term 'owner or operator' does not include a unit of state or local government which acquired ownership or control involuntarily through bankruptcy, tax delinquency, abandonment, or other circumstances in which the government involuntarily acquires title by virtue of its function as sovereign."[24]

In defending a CERCLA action, a transportation agency that has a good faith argument that the site was acquired involuntarily may assert both its exemption from the definition of owner or operator and the defense to CERCLA liability established by Section§ 101(35)(A).

b. Elements Necessary to Establish Condemnation Defense

To prevail in asserting the condemnation defense, a transportation agency must demonstrate that the site was contaminated prior to its acquisition and that it handled the hazardous substances on the site with due care.[25] At least one court has recognized the condemnation defense when it has been raised by a transportation agency.[26]

In contrast to a claim under the innocent purchaser defense, a transportation agency claiming the condemnation defense need not demonstrate that it did not know of the contamination.[27] A transportation agency only must show that the contamination in issue existed before it acquired the site. In order to be able to make a demonstration, if necessary, that contamination existed prior to ownership, a transportation agency should conduct an investigation of "baseline" existing site conditions prior to acquisition. An adequate investigation of existing site conditions will support a transportation agency's condemnation defense.[28]

A transportation agency need not actually initiate a condemnation action in its acquisition of a site in order to claim the defense. The statute specifically states "by

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[18] United States v. Allan Aluminum Corp., 964 F.2d 252, 257 (3d Cir. 1992).

[19] B.F. Goodrich Co. v. Murtha, 958 F.2d 1192, 1204 (2d Cir. 1992).

[20] DEBORAH L. CADE, TRANSPORTATION AGENCIES AS POTENTIALLY RESPONSIBLE PARTIES AT HAZARDOUS WASTE SITES 6 (Legal Research Digest No. 34, Nat'l Coop. Highway Research Program, 1995).

[21] *Id.* Lincoln Properties Ltd. v. Higgins, 823 F. Supp. 1528, 1537 (E.D. Cal. 1992).

[22] 42 U.S.C. § 9607(a)(1).

[23] 42 U.S.C. § 9601(35)(A).

[24] 42 U.S.C. § 9601(20)(D).

[25] 42 U.S.C. § 9601(35)(A) and 42 U.S.C. § 9607(b).

[26] *See, e.g.*, United States v. Peterson Sand & Gravel, Inc., 806 F. Supp. 1346 (N.D. Ill. 1992).

[27] 42 U.S.C. § 9601(35)(A)(i) and (ii).

[28] CADE, *supra* note 20, at 7.

purchase or condemnation," and a transportation agency's authority to acquire sites, even by purchase, arises from its eminent domain authority.[29] An agency seeking to use this defense should be careful not to risk its loss through activities of its own that could give rise to a charge of failure of due care.[30] In one case involving a highway agency, the court held that the question of whether a highway agency had exercised due care entitling it to the defense is a question for the trier of fact.[31]

3. Regulatory Actions Against Transportation Agencies Under CERCLA

a. General Notice Letter

Typically transportation agencies are notified of their involvement at a cost recovery site through a general notice letter.[32] The letter usually states that the transportation agency is a PRP for the contamination at the site. The letter may also offer a basis for the agency's potential liability, such as an allegation that the agency is a current owner or operator of the site, a former owner or operator, an arranger, or a transporter of the hazardous substances at the site.

The general notice letter frequently also includes a Section§ 104(e) information request.[33] The information request may pose specific questions or may require the production of agency records.[34] The requested information and records typically must be produced within a specified period of time.

A transportation agency's response to a general notice letter gives it the opportunity to comment on its designation as a PRP and to present any defense as to why the transportation agency should not be a PRP. Similarly, where agency records are requested, the agency has the opportunity to provide exculpatory documents supporting a defense to CERCLA.

As discussed in Section 5.A.2., a transportation agency may successfully assert the condemnation defense to CERCLA. Where the EPA has not yet instituted a cost recovery action, a transportation agency must lay the groundwork for a successful condemnation defense. In responding to a general notice letter or a request for information, an agency needs to explain when and under what circumstances it acquired the site and what the agency knows about when the contamination occurred. Under the appropriate facts, the transportation agency may assert that it is entitled to the condemnation defense and that it should be removed from the list of PRPs.

b. Agreed Orders and Administrative Orders

Under CERCLA, the EPA has the authority to negotiate an "agreed order on consent" (AOC) with any party.[35] An AOC may be negotiated either for a limited purpose at a site, such as site investigation or partial remediation, or to completely resolve a party's involvement at a site.[36]

The wording of an AOC generally consists of standard EPA "boilerplate" provisions that the agency presents in every case.[37] However, because the language of the form document is tailored to private parties more than government agencies, transportation agencies should carefully examine the AOC's provisions and negotiate for modifications where necessary.[38] Additionally, a transportation agency considering entering into an AOC should be aware of the other parties to the agreement.[39] The EPA is negotiating the AOC on behalf of the United States. Any defense that is waived in the AOC with respect to the EPA may also be waived as to the entire United States Government. Conversely, the state or local agency asked to sign an AOC should ascertain whether its agreement will bind other agencies.[40]

Section 106 of CERCLA permits the EPA to issue administrative orders against PRPs.[41] The administrative orders are typically issued where negotiations for an AOC fail. The administrative order may require a PRP to conduct an investigation and remediation of a hazardous waste site.[42] Failure to comply with a Section 106 order may result in penalties being issued against a PRP, including fines of $25,000 per day.[43]

A transportation agency must make an adequate administrative record where it is a PRP at a contaminated site.[44] The EPA's decisions under CERCLA are reviewed by a court on the administrative record.[45] Any evidence that contests the EPA's decisions must be in the administrative record in order to support a challenge to the EPA's actions.

To review and possibly contest the EPA's decisions with respect to a contaminated site, a transportation agency may need to retain an experienced environmental consultant.[46] Having such a consultant on its staff or on retainer may permit a transportation agency to influence initial EPA decisions such as the

[29] 42 U.S.C. § 9601(35)(A)(ii); *see* CADE *supra* note 20, at 7.

[30] *See* 42 U.S.C. § 9607(b)(3)(a).

[31] United States v. Sharon Steel, 1988 U.S. Dist. LEXIS 11975 (D. Utah, 1988).

[32] CADE, *supra* note 20, at 11.

[33] 42 U.S.C. § 9604(e).

[34] 42 U.S.C. § 9604(e)(2).

[35] 42 U.S.C. § 9622(a).

[36] *Id.*

[37] CADE, *supra* note 20, at 11.

[38] *Id.*

[39] *Id.*

[40] *Id.*

[41] 42 U.S.C. § 9606(a).

[42] *Id.*

[43] 42 U.S.C. § 9606(b).

[44] CADE, *supra* note 20, at 11.

[45] 42 U.S.C. § 9613(j)(1).

[46] CADE, *supra* note 20, at 11.

scope, manner, and extent of the investigation or remediation.

In responding to a PRP notice, a transportation agency should raise any defense it may have to liability, such as the condemnation defense discussed in Section 5.A.2. above. This is a specific defense potentially available to an agency whose sole involvement with a site is with respect to assistance provided in cleaning up a site. That is the exception to liability for rendering care or advice.[47] This exception allows a state or local government agency to respond to a release incident creating an emergency without incurring liability, provided that the response does not involve gross negligence or intentional misconduct.[48] This exception could apply, for example, when a highway agency takes nonnegligent emergency measures to control a release from a vehicle accident.

CERCLA generally prohibits judicial review of any internal EPA decisions prior to the initiation of a cost recovery action. However, judicial review may be obtained over a challenge to a site's inclusion on the NPL.[49] The United States Court of Appeals for the District of Columbia Circuit has jurisdiction over this type of complaint.[50] A petition challenging whether a site should be on the NPL must be filed within 90 days after EPA publishes notice in the *Federal Register* that the site is on the list.[51] However, the court has indicated a willingness to consider untimely NPL listing challenges where a party had no way of knowing it would be implicated at a particular site.[52] State transportation agencies should consider the political implication or feasibility of challenging an NPL listing over the objections of the state environmental agency.

4. Taking Cleanup Costs into Account at Acquisition

In acquiring sites, it is very important that a transportation agency evaluate potential contamination as early as possible. Evaluation early in the process permits transportation agencies to reconsider the design of a project, if necessary, to avoid the contaminated site. In evaluating whether to design a project around known areas of contamination, the transportation agency should carefully weigh the complications, costs, and potential liabilities associated with ownership of and construction in contaminated sites. However, avoiding contaminated sites may not be possible in all instances, and a transportation agency may have to undertake additional steps to protect its interests.[53]

a. Acquisition of Less than Fee Interest

Where it is not possible to avoid contamination altogether, a transportation agency may consider acquiring less than a fee ownership of the site.[54] Acquisition of an easement across a contaminated parcel or acquisition of an airspace easement, rather than a fee interest, may limit a transportation agency's exposure to liability. Although acquiring interests of this type is unusual, at least one court has held that the holder of an easement was not an "owner" under CERCLA and was therefore not liable where the holder's use was not the cause of the contamination.[55]

However, even if the transportation agency holds only an easement, where the agency's use of the property results in a further release of hazardous substances, the agency may be held liable as an operator.[56]

b. Valuation Methods for Acquiring Contaminated Property

When acquiring contaminated property, there are a number of different valuation methods a transportation agency may employ. Obviously, a contaminated site is worth less than an uncontaminated site. However, establishing the exact value of the contaminated site involves many factors and many potential methodologies. As one commentator has noted, guidance in the case law on this subject is "minimal and split."[57] This section discusses various methods transportation agencies may employ to establish the value of a contaminated site.[58]

i. Value as "Clean" and Subtract Remediation Costs.—A common method transportation agencies use is to value a site as clean and then subtract the remediation costs of a site. This method involves risk because there is the potential for gross miscalculation of remediation costs for a site. This method is most useful where

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[47] 42 U.S.C. § 9607(d)(2).

[48] *Id*.

[49] CADE, *supra* note 20, at 12-42; U.S.C. § 9613(a).

[50] *Id.*

[51] *Id*.

[52] Washington State Dep't. of Transp. v. United States Envtl. Protection Agency, 917 F.2d 1309 (D.C. Cir. 1990).

[53] *See* KEVIN M. SHEYS & ROBERT L. GUNTER, REQUIREMENTS THAT IMPACT THE ACQUISITION OF CAPITAL-INTENSIVE LONG-LEAD TIME ITEMS, RIGHTS OF WAY, AND LAND FOR TRANSIT 14–15 (Transportation Research Board Legal Research Digest No. 6, 1996).

[54] CADE, *supra* note 20, at 13.

[55] Long Beach Unified School District v. Dorothy B. Godwin Cal. Living Trust, 32 F.3d 1364 (9th Cir. 1994).

[56] *See, e.g*., Kaiser Aluminum v. Catellus Dev. Co., 976 F.2d 1338 (9th Cir. 1992).

[57] SHEYS & GUNTER, *supra* note 53, at 13.

[58] The following discussion is taken in substantial part from CADE *supra* note 20, at 14–18. For additional discussion of the practical effects of environmental remediation in condemnation proceedings, including methods of valuation, *see* ch. 37 in T. NOVAK, ET AL., CONDEMNATION OF PROPERTY: PRACTICE AND STRATEGIES FOR WINNING JUST COMPENSATION (1994); discussion and cases cited in *The Taking of Environmentally Contaminated Property in* NICHOLS' THE LAW OF EMINENT DOMAIN THIRD EDITION, ch. 13B (1996 Supp.); and LEONA D. JOCHNOWITZ, INTRODUCING EVIDENCE OF CONTAMINATION AND OFFSETTING COST OF REMEDIATION IN DETERMINING FAIR MARKET VALUE FOR EMINENT DOMAIN AWARDS: A REVIEW OF INTERRELATIONSHIP BETWEEN ENVIRONMENTAL AND ACQUISITION LAW 21 (Transportation Research Record 1527, 1996).

contamination is limited and well-defined, and remediation costs may be quantified with some certainty.

Valuing a site as clean and subtracting remediation costs has not been uniformly accepted by courts in condemnation proceedings. For example, in *Illinois Department of Transportation v. Parr*, the Illinois Department of Transportation unsuccessfully sought to use the remediation costs associated with a site to offset the uncontaminated value of the site.[59] The court held that the transportation agency could not use evidence of remediation costs to establish property value in a condemnation action.[60] In *Aladdin, Inc. v. Black Hawk County*, the Iowa Supreme Court held that the estimated cost of remediation of existing groundwater contamination could not be used to reduce a compensation award.[61]

However, in other instances, evidence of remediation costs have been permitted in condemnation proceedings. In *City of Olath v. Stott*, the Supreme Court of Kansas permitted evidence of remediation costs in a condemnation proceeding.[62] The court reasoned that because underground petroleum contamination necessarily affects the market value of real property, evidence of contamination and cost of remediation must be admissible.[63] Similarly, in *Redevelopment Agency of the City of Pamona v. Thrifty Oil Company*, a California appeals court upheld the trial court's decision to consider remediation costs in a condemnation proceeding.[64]

One difficulty with raising the issue of remediation costs in a condemnation proceeding is that remediation costs may exceed the fair market value of the property. Courts may well be unwilling to value property at a zero or negative value and require an owner to pay a transportation agency, particularly given that CERCLA provides the condemner with the right to recover clean-up costs from PRPs.[65]

Another difficulty arises when the agency is acquiring the property from an intervening innocent landowner. The intervening innocent owner likely purchased the property for its full value, with no discount from the contamination. This difficulty arose in *Murphy v. Town of Waterford*, where the current owner did not contribute to the contamination of a site.[66] The Connecticut trial court would not permit the condemning agency to subtract remediation costs from the fair market value of the site.[67] The court based its ruling on equitable grounds and noted that the condemning agency had not done any environmental site testing prior to the date of acquisition, despite the agency's prior notice of the site's former use as a gas station.[68]

An additional difficulty with incorporating remediation costs into condemnation proceedings is the risk of collateral estoppel. Where an agency has successfully introduced evidence at a condemnation proceeding as to remediation costs, but is unsuccessful in having the costs deducted from the takings award, it could be estopped from later recovering these response costs from the owner. Thus the agency could be required to pay the clean value of the property and could also have to incur the remediation costs.

One final difficulty with this method is that it does not account for depreciation of the site's value as a result of stigma. In addition to the cost of remediation, a site's value may decrease because of the stigma that is associated with contaminated properties. Uncertainty as to whether additional contamination exists at a site and will be discovered in the future may create a public stigma that reduces the value of sites that have been contaminated.

ii. Use of Contaminated Comparable Sales.—The concept of "stigma" comes into play when estimating the value of contaminated property using the comparable sales approach. Stigma reflects the negative effect of perception on the value of a contaminated property. It takes into account that the market value of a contaminated parcel may be less than simply the value of the parcel "if clean" minus the cost of cleanup. In part this discount factor is a transaction cost reflecting the difficulty and increased cost of financing and developing parcels that have been contaminated or are in the process of cleanup. But in part it reflects fears or other negative feelings, whether objectively based or not, that the general public has about purchasing property that is or has been contaminated.

Some courts have recognized the role of stigma in valuing contaminated property taken by a transportation agency. For example, *Tennessee v. Brandon*,[69] involved the condemnation of property by the state Department of Transportation. The trial court had heard evidence concerning the market value of the property but had excluded evidence concerning the effect on market value of the property's contaminated nature and the cost of cleanup. The appellate court reversed, holding that the evidence offered by the agency as to the market value of the property in its

[59] Ill. Dep't of Transp. v. Parr, 633 N.E.2d 19, 259 Ill. App. 3d 602, *review denied*, 642 N.E.2d 1276 (1994).

[60] *Id.*

[61] Aladdin, Inc. v. Black Hawk County, 562 N.W.2d 608 (Iowa 1997).

[62] City of Olath v. Stott, 861 P.2d 1287 (Kan. 1993).

[63] *Id.*

[64] 5 Cal. Rptr. 2d 687 (Cal. App. 2 Dist. 1992), *review denied*.

[65] *See, e.g.*, Northeast Conn. Alliance v. ATC Partnership, 776 A.2d 1068, 1998 Conn. Super., LEXIS 1057 (April 16, 1998). (Court rejects valuation based on deduction of clean-up costs from unstigmatized fair market value where result was that the property had "no value").

[66] Murphy v. Town of Waterford, 1992 Conn. Super., LEXIS 2085 (July 9, 1992) (No. 520173).

[67] *Id.*

[68] *Id.*

[69] State v. Brandon, 898 S.W.2d 224 (Ct. App. Tenn. 1994).

contaminated state, including the cost of clean up, should have been admitted for the purposes of determining the condemnation award. The court then acknowledged the role that stigma played in determining the value of property and announced that on remand the effects of stigma should also be taken into account by the jury:

> the evidence which DOT attempted to offer relative to the contamination of the property and the cost of remediation was relevant to the value of the property on the date of taking, but it was also relevant regarding the effect which the stigma of contamination would have on its market value in the mind of the buying public. DOT's experts were prepared to offer evidence that the opinion of an interested buyer would be affected by the fact that the property had suffered contamination, as well as its present condition.[70]

There are two general approaches to using comparable sales to value contaminated property. The first is to directly compare a site to sites with similar contamination issues for which sales data exists. However, identifying such sites for comparison purposes may be difficult. In particular, it may be difficult to compare the type and extent of contamination across disparate sites. This approach may be used when it is possible to find sales of property that is similar to the subject parcel in size, location, and highest and best use.[71] A second approach is to use sales of comparable contaminated properties to estimate a discount factor for the difference between clean and contaminated property, which can be applied to the "if clean" value of the parcel in question. This approach may be suited to situations in which contaminated properties comparable in size, location, highest and best use, and other attributes are not readily available, although the reliability of the discount factor will likely be greater the more the properties are comparable.[72] It is important that testimony as to a stigma discount be based on comparable sales or other admissible facts and not simply reflect "a mere surmise that because property is contaminated, it logically follows that the value of the property is decreased."[73]

iii. Income Approach with Amortization of Costs.—This method involves determining the value of a property based on an income stream that has been adjusted by the amount required to amortize remediation costs. This approach has been used to value sites in tax assessment cases.[74] However, transportation agencies have not reported using this method and are not likely to because it depends upon the property generating an income stream.

iv. Valuation as "Clean" in Exchange for Owner Cleanup and/or Indemnification.—This method places the burden on the owner to remediate a site in exchange for receipt of the full fair market value of the site as if clean. If an indemnification from the owner is also obtained, the transportation agency is protected from liability for any future response action as a result of contamination left by the owner. The owner is effectively accepting responsibility for both the current cost of cleanup as well as the risk of any future response costs. However, an indemnification is not a defense to liability under CERCLA. The agency as the site's current owner may still be named as a PRP, regardless of an indemnification agreement. The indemnification agreement is only enforceable between the agency and former owner.

Alternatively, a transportation agency could agree to value a site as clean even without obtaining an indemnification from the owner. The Nebraska Department of Transportation and the Nevada Department of Transportation have both reported successfully negotiating a commitment by the owner to remediate sites in exchange for having a site valued as clean.[75]

An agreement to conduct site remediation with or without an indemnification is only as good as the party that stands behind it. While this approach may be appropriate for purchase from a credit-worthy "deep pocket," it would not be advisable where the seller's future financial status is questionable. As discussed immediately below, one approach is to have the indemnifying party escrow or otherwise secure the funds necessary to ensure cleanup, including a contingency for unforeseen costs. An agency using this approach should also be sure that the acceptable cleanup standards are clearly set forth by agreement of the parties.

v. Valuation as "Clean" and Placement of Funds in Escrow.—An agency paying "clean" value with the owner agreeing to take care of the cleanup may want to obtain an agreement that a portion of the purchase price is held in escrow until cleanup is completed to the satisfaction of regulators and the agency. The escrow amount in such situations is frequently set at an amount greater than the expected cleanup costs in order to provide for the uncertainty inherent in estimating future costs.

This method has reportedly been successfully employed by a number of state departments of transportation, including the South Carolina Department of Transportation and the Washington State Department of Transportation (WSDOT).[76]

vi. Valuation as "Clean" and Payment of Funds into Court Pending Cleanup and/or Indemnification.—A variation of the previously described method is for the agency to pay funds for the value of the site into a court to be held pending remediation. In this way, a transportation

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[70] *Id.* at 228, citing Florida Power & Light Co. v. Jennings, 518 So. 895, 899 (Fla. 1987).

[71] CADE, *supra* note 20, at 16.

[72] *Id.*

[73] Finkelstein v. Department of Transp., 656 So. 2d 921, 925 (Fla. 1995).

[74] *See, e.g.*, Inmac Assoc., Inc. v. Borough of Carlstadt, 112 N.J. 593 (1988); CADE, *supra* note 20, at 16.

[75] CADE, *supra* note 20, at 16.

[76] *Id.* at 17.

agency may comply with its legal condemnation requirements and take possession of the site while negotiations and/or remediation of the site occurs.[77]

vii. Valuation of Access Rights.—In certain instances a transportation agency will only need access rights to a site, not a full fee simple interest. Where a site is contaminated, the question arises as to whether the value of the access rights should be discounted as a result of contamination. Although this issue may arise infrequently, it is worth a transportation agency considering it in negotiating access rights.[78]

viii. Prospective Purchaser Agreements.—Many state environmental agencies have procedures for entering into prospective purchaser agreements with the buyer of a contaminated site.[79] A prospective purchaser agreement generally limits the buyer's responsibility for existing contamination at a site. In exchange for some investigation or remediation costs, a state agency may absolve a purchaser such as a transportation agency from liability.

The EPA has issued guidance on prospective purchaser agreements.[80] The guidance allows for prospective purchaser agreements where there will be substantial benefit to the community, such as job creation through economic development or the productive use of an abandoned building. The EPA also provides for the related option of the *de minimus* settlement agreement. *De minimus* settlements may be considered when the owner's liability is very small. Either of these approaches may allow a purchasing transportation agency to ascertain its exposure and price its acquisition accordingly.

c. Negotiation with Responsible Parties

Before acquiring a contaminated site, a transportation agency should initiate negotiations with any known PRPs. Negotiations with PRPs may lead to the PRPs assisting in remediation, accepting responsibility for remediation, or indemnifying the agency. Moreover, negotiations should conform to CERCLA's notification requirements by informing PRPs of the type of proposed remediation and giving them the opportunity to perform the remediation themselves.[81] The NCP requires that PRPs be notified of "removal actions" so that they have the opportunity to perform the actions "to the extent practicable."[82] A transportation agency or any party that fails to provide the required notification may be unable to recover its CERCLA costs.[83] State statutes and regulations may have similar notification requirements.[84]

B. RECOVERY OF CLEANUP COSTS*

A transportation agency will often need to identify and pursue PRPs if it wants to recover the cost of remediating a contaminated site. Such cost recovery can be a lengthy and expensive process with no certainty of success. This section discusses strategies for pursuing cost recovery actions and defenses a PRP may raise in a cost recovery action.

1. Identifying PRPs

In addition to the prior owner from which the transportation agency acquired the site, there may be many other PRPs to which a transportation agency may look for recovery of its remediation costs. At a minimum, the transportation agency should undertake a chain of title review to identify past owners and holders of other interests at the site. The agency may also review corporate records filed with the state, as well as records of the state environmental agency and the state health department, local records including tax assessors' files, and proprietary databases. The agency should investigate not only the ownership and use history of the site itself, but also that of abutting properties from which hazardous material may have migrated to the site. A list of resources for identifying PRPs is provided in the discussion of Phase I investigation in Section 3.C.2.

2. Cost Recovery Under CERCLA

a. Prima Facie Case

To recover costs from a PRP under CERCLA, a transportation agency must prove that (i) the contaminated site is a facility; (ii) at which a release of hazardous substances occurred; (iii) which caused the incurrence of response costs; and (iv) that the defendant is a responsible party.[85] These four elements constitute a prima facie case under CERCLA for state transportation agencies. However, as discussed below, city, county, or regional agencies must also prove a fifth element: That their response costs were consistent with the NCP.[86]

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[77] *Id.* at 17–18.

[78] *See Id.* at 18.

[79] *Id.* at 17. *See e.g.*, MASS. GEN. L. ch. 21E, § 3A(j).

[80] 60 Fed. Reg. 34792 (July 3, 1995); *see also* Model Prospective Purchaser Agreement (September 30, 1999).

[81] 40 C.F.R. § 300.415(a)(2).

[82] *Id.*

[83] *See, e.g.*, Town of Munster v. Sherwin-Williams, Co., 825 F. Supp. 197, 203 (N.D. Ind. 1993), *vacated and remanded* 27, F.3d 1268 (7th Cir. 1994).

[84] *See, e.g.*, MASS. GEN. LAWS ANN. ch. 21E § 4A.

[*] This Section updates, as appropriate, and relies in part upon the discussion of this subject in DEBORAH L. CADE, TRANSPORTATION AGENCIES AS POTENTIALLY RESPONSIBLE PARTIES AT HAZARDOUS WASTE SITES (Legal Research Digest No. 34, Nat'l Coop. Highway Research Program, 1995).

[85] CADE, *supra* note 20, at 19.

[86] *See* United States v. Northernaire Plating, 670 F. Supp. 742, 746–47 (W.D. Mich. 1987), *aff'd.,* 895 F.2d 1497 (6th Cir. 1989); City of Philadelphia v. Stepan Chemical Co., 713 F.

b. Jurisdiction

Federal courts have exclusive original jurisdiction over CERCLA cost recovery actions.[87] The action must be brought in the district court where the release occurred or in which the defendant resides, has its principal place or business, or may be found.[88] A federal cost recovery action must be brought within 3 years of completing a removal action at a site or within 6 years of initiating a remedial action at the site.[89]

c. Recoverable Costs

Response costs that may be recovered include any costs incurred to investigate the site, analyze remediation alternatives, and implement remediation and perform any ongoing groundwater monitoring.[90] A transportation agency may recover remediation costs already expended and may obtain a declaratory judgment against a PRP on liability for future costs.[91] However, response costs that may be recovered do not include the consequential economic impacts that remediation may entail, such as delay costs or inflation costs.

Transportation agencies should also seek recovery of attorneys' fees incurred in bringing and litigating a cost recovery action. CERCLA expressly authorizes the federal government to seek reimbursement for legal costs.[92] However, since the Supreme Court's 1994 ruling in *KeyTronic Corp. v. United States* resolved the issue, private parties have only been entitled to attorneys' fees if they are incurred in the process of identifying responsible parties.[93] A recent Ninth Circuit Court of Appeals case affirming an award of attorneys' fees to the federal government under CERCLA, however, concluded that CERCLA "evinces an intent to provide for attorneys' fees" in actions brought by the government.[94]

A transportation agency should also consider providing a written demand for specified response costs to a PRP prior to initiating a cost recovery action. Courts have reached different conclusions as to whether a written demand is required prior to initiating a lawsuit in order to recover prejudgment interest at trial. Some state cost recovery provisions require a written demand as a precedent to bringing a cost recovery action.[95]

3. Defenses to a Transportation Agency Cost Recovery Action

A PRP has a number of defenses it may assert to defend a transportation agency's cost recovery action under CERCLA. Some of the defenses potentially most relevant to transportation agencies as plaintiffs or defendants are set forth below.

a. Not Consistent with the NCP

Even if a PRP is held liable under CERCLA, it may assert that response costs incurred by the plaintiff are not consistent with the NCP. Differences between the language of CERCLA Section 107(a)(4)(B), which addresses private party cost recovery actions, and 107(a)(4)(A), which addresses the recovery of costs by the government, allow a transportation agency that can prosecute a claim as a state or federal government agency a potential advantage over a private plaintiff. In cost recovery actions brought by "any other persons" under Section 107(a)(4)(A), recoverable costs include those that are "necessary" and "consistent with the National Response Plan."[96] Defendants to a private party cost recovery action typically assert that the response costs were not "necessary" costs of response "consistent with the National Contingency Plan," thereby putting on the plaintiff the burden of demonstrating the necessity and consistency of each itemized expense.[97] Defendants raising this response cause every detail of a cleanup project to be scrutinized as to its "necessity" under the Plan.[98]

By contrast, in cost recovery actions brought under Section 107(a)(4)(A), government agencies may seek recovery of costs that are "not inconsistent with" the NCP and there need be no demonstration of whether the costs were "necessary."[99] This language creates a presumption that a responsible defendant is liable for all response costs incurred unless the defendant overcomes the presumption by presenting evidence that the costs are inconsistent with the NCP.[100] In making

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Supp. 1484 (E.D. Pa. 1989). *See also* Washington State Dep't of Transp. v. Washington Natural Gas Co., 59 F.3d 793 (9th Cir. 1995) (state transportation agency is the "State" for purposes of 42 U.S.C. § 9607(a)(4)(A)).

[87] 42 U.S.C. § 9613(b) and 28 U.S.C. § 1331.

[88] 42 U.S.C. § 9613(b).

[89] 42 U.S.C. § 9613(g)(2).

[90] 42 U.S.C. §§ 9601(23) and (24), and 42 U.S.C. § 9607(a)(4)(B). *See* United States v. Bogas, 920 F.2d 363, 369 (6th Cir. 1990) (remediation costs recoverable under CERCLA include "not only the direct cost of removal, but of site testing, studies, and similar 'response costs,' direct and indirect").

[91] 42 U.S.C. § 9613(g)(2).

[92] 42 U.S.C. § 9604(b)(1).

[93] Key Tronic Corp. v. United States, 511 U.S. 809 (1994).

[94] United States v. Chapman, 146 F.3d 1166, 1175 (9th Cir. 1998); *see also* B.F. Goodrich v. Bethoski, 99 F.3d 505 (2d Cir. 1996) *cert. denied*, 524 U.S. 926 (1998); Comment: Jason Northett, *Reviving CERCLA's Liability: Why Government Agencies Should Recover Their Attorneys' Fees in Response Cost Recovery Actions*, 27 B.C. ENVTL. AFF. L. REV. 779 (2000).

[95] *See, e.g.*, MASS. GEN. LAWS ANN. ch. 21E § 4A (West 1994).

[96] 42 U.S.C. § 9607(a)(4)(B). This Response Plan is known as the National Contingency Plan.

[97] SUSAN M. COOKE, THE LAW OF HAZARDOUS WASTE (1987) at §§ 16.01[9][a], [b]; O'Neil v. Piccilo, 682 F. Supp. 706, 728 (D.R.I. 1988), *aff'd,* 883 F.2d 176 (1st Cir. 1989), *cert. denied*, 493 U.S. 1071 (1990).

[98] CADE, *supra* note 20, at 22.

[99] 42 U.S.C. § 9607(a)(4)(A).

[100] COOKE, *supra* note 97, at § 16.01[9][b], *citing* United States v. NEPACCO, 579 F. Supp. 823 (W.D. Mo. 1984), *aff'd*

such a showing, a PRP may have to demonstrate that quantifiably greater costs were incurred as a result of the deviation from the NCP.[101]

A state transportation agency may benefit from this presumption; however, local agencies may not. In *WSDOT v. Washington Natural Gas Co.*, the Court of Appeals for the Ninth Circuit upheld the trial court's holding that the WSDOT, as an agency of the state, was entitled to the presumption of consistency with the NCP.[102] However, a municipal or regional agency may not be afforded this presumption and may have to prove consistency with the NCP as part of their prima facie case.[103] Courts have held that a city or county must prove consistency with the NCP because the definition of person includes a "political subdivision of a state," such as a city or region, whereas the definition of state does not.[104]

For years, it was uncertain whether the standard for consistency was "substantial compliance" or "strict compliance" in order to recover. Under the 1990 version of the NCP, substantial compliance was required,[105] whereas prior versions of the NCP had required strict compliance.[106] Courts have generally held that the applicable version of the NCP is the one that is in effect at the time remediation costs are incurred.[107] The only difficulty with this interpretation arises where the regulations change during the remediation process.

In *City of Philadelphia v. Stepan Chemical*, the NCP changed after investigation of the contaminated site had been completed and remediation was underway.[108] The District Court for the Eastern District of Pennsylvania held that response activities that had taken place prior to publication of the new rule would be evaluated under the prior rule and response activities that occurred subsequent to publication would be evaluated under the new rule.[109] Because of the court's holding, a transportation agency needs to take account of whether the NCP is undergoing revision while it is conducting a remediation.

b. Discharge in Bankruptcy

Another concern for a transportation agency seeking cost recovery or contribution under CERCLA or related state laws is that PRPs may seek to avoid liability by filing for bankruptcy. At the time a claim for response costs arises, it is very important for an agency to consider whether any of the PRPs have filed or are likely to file for bankruptcy.[110] Likewise, a group of PRPs may include an entity that has come through a bankruptcy proceeding and reorganized but is now being pursued for environmental liability relating to its pre-bankruptcy activity, as to which claims may in fact have been discharged. In either case, it is important to consider the effects of bankruptcy law on the ability to recover response costs.

The two main forms of relief under the federal bankruptcy code are known as "Chapter 7" and "Chapter 11" bankruptcy.[111] In Chapter 7 proceedings, the debtor's assets are collected, sold, and equitably distributed to claimants. In the case of individual Chapter 7 debtors, remaining debts are discharged, but for corporate debtors, the debts not satisfied "remain with the assetless corporate shell that emerges from Chapter 7 proceedings."[112] Under Chapter 11, the goal is to reorganize the debtor's business and restructure its debt to preserve for debtors the value of the business as an ongoing concern, and debts not satisfied are for the most part discharged except as provided in the reorganization plan.[113]

There are three categories of bankruptcy claims: secured, priority, and unsecured. A secured claim is one as to which the claimant has a lien on the debtor's property such as a mortgage or security interest.[114] A secured claimant will be paid in full if the value of the collateral subject to the security interest exceeds the value of the secured claim. Priority claims are unsecured claims that are entitled to payment ahead of unsecured claims. These include particular claims identified by the bankruptcy statute, including among other types of claims, those that arise between the filing of a petition for involuntary bankruptcy and the entry of an order for relief and those pertaining to expenses for the administration of the bankrupt estate.[115] Unsecured claims are all other claims that are not secured and not entitled to priority, and they stand last in line for repayment.[116] Cost recovery claims brought by a buyer of property from a debtor's estate may be treated as priority claims on the grounds that they are actual and necessary costs of preserving the debtor's

in part, rev'd in part, 810 F.2d 726 (8th Cir. 1986), *cert. denied,* 484 U.S. 848 (1987).

[101] O'Neil v. Piccilo, 682 F. Supp. 706, 728.

[102] Washington State Dep't of Transp. v. Washington Natural Gas Co., 59 F.3d 793 (9th Cir. 1995).

[103] City of Philadelphia v. Stepan Chemical, 713 F. Supp. 1484 (E.D. Pa. 1989).

[104] *See* Town of Bedford v. Raytheon Co., 755 F. Supp. 469, 475 (D. Mass. 1991).

[105] 55 Fed. Reg. 8793 (March 8, 1990).

[106] 50 Fed. Reg. 47,930 at 47, 934 (1985).

[107] Versatile Metals Inc. v. Union Corp., 693 F. Supp. 1563, 1575 (E.D. Pa. 1988); N.L. Industries v. Kaplan, 792 F.2d 896, 898 (9th Cir. 1986); Wickland Oil Terminals v. ASARCO, Inc., 792 F.2d 887, 891 (9th Cir. 1986).

[108] 748 F. Supp. 283 (E.D. Pa. 1990).

[109] *Id.* at 292.

[110] *See Environmental Claims in Bankruptcy Proceedings* in SUSAN M. COOKE, THE LAW OF HAZARDOUS WASTE, at ch. 20, for a detailed treatment of this subject.

[111] 11 U.S.C. §§ 701, 1101 *et seq.*

[112] COOKE, *supra* note 97, at § 20.01[3][g].

[113] COOKE, *supra* note 97, at §§ 20.01[3][a], [3][b], and [3][g].

[114] 11 U.S.C. § 506.

[115] 11 U.S.C. § 507(a).

[116] *See* COOKE, *supra* note 97, at § 20.01[3][d].

estate, and some but not all courts have held likewise even as to claims for cleanup costs incurred with respect to property that the debtor never owned but may have occupied or operated.[117]

It is important to know when a claim for environmental costs "arises" for purposes of determining whether it may be presented in a bankruptcy proceeding or whether it may have been discharged by a prior bankruptcy. Courts have applied a variety of approaches to this analysis, but more recently appear to have settled on a "fair contemplation" standard.

A leading case adopting this standard is *Matter of Chicago, Milwaukee, St. Paul & Pacific Railroad Company*, in which the Court of Appeals for the Seventh Circuit addressed the issue of when a CERCLA claim arises for the purpose of filing a claim in bankruptcy.[118] The factual context was a train derailment that had resulted in the release of contamination to a right-of-way later acquired for highway construction. The highway agency undertook site investigation at a time when the railroad company was in bankruptcy. The results of the site investigation, disclosing the contamination, were available to the highway agency 3 weeks before the last date for filing claims in the bankruptcy proceedings, but no claim was filed. The agency argued that it had not yet incurred response costs, and therefore that its claims were not barred by the bankruptcy court deadline. Although the agency had not yet incurred response costs at the time of the bar, the court held that the WSDOT had at least a contingent claim at that time and that it was required to file a claim in the bankruptcy proceedings, or else lose that claim.[119]

Under this "fair contemplation" approach, where a CERCLA claimant has adequate information as to the connection between the release of hazardous substances and the bankrupt party and as to the likelihood of incurring costs for which the bankrupt party should be responsible, the claimant must either file in bankruptcy or lose the right to pursue that claim.[120] As one commentator notes, this standard "appears to be emerging as the accepted standard in determining the dischargeability of environmental claims," and even where the standard has not been adopted as such, a proof of claim should be filed where a creditor has knowledge of or can reasonably foresee environmental liability, lest a dischargeable claim arise.[121]

A second approach followed by some courts has been called the "relationship" approach. This approach establishes the date of a claim "at the earliest point in a relationship between a debtor and a creditor."[122] This approach has been used to completely bar recovery of response costs by regulatory agencies from bankrupt debtors on the theory that the relationship between the regulatory agencies and the entities subject to regulation is such that any contingency based on pre-petition conduct comes within the definition of a "claim."[123] An alternate formulation of this approach holds that a dischargeable environmental claim arises when the hazardous waste was first released, regardless of when the response costs are actually incurred.[124] Such an approach has been criticized as adopting too broad a definition of claim.[125]

A third approach to determining when a claim arises is called the "response costs" approach and holds that a dischargeable claim under CERCLA does not arise until response costs have been incurred. Under this approach, where cleanup activities are delayed until after the close of bankruptcy proceedings so that response costs have not yet been incurred, it would be possible to later pursue the reorganized debtor with a cost recovery action. Not surprisingly, this approach has been criticized as frustrating the purpose of the bankruptcy code, as well as CERCLA's goal of promptly cleaning up waste disposal sites.[126]

A further concern is how a transportation agency with a contingent environmental claim is to receive notice of a bankruptcy sufficient to prompt it to file any claims it might have against the debtor. Unfortunately for the agency, actual notice of the bankruptcy proceeding is not required for creditors, such as contingent environmental claimants, who are not known to the trustee. Rather, constructive notice by publication is sufficient.[127] However where the debtor had considerable contacts with the agency's jurisdiction, a failure to publish notice in that jurisdiction may not suffice.[128]

Where a plaintiff has a cost recovery claim based on the activities of a debtor that has reorganized pursuant to Chapter 11, it typically will not be possible to pursue the reorganized successor to the bankrupt entity. This is because such claims are typically discharged in the

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[117] *See* COOKE, *supra* note 97, at § 20.04[2][b].

[118] 974 F.2d 775 (7th Cir. 1992); *see* CADE, *supra* note 20, at 23.

[119] *Id.* at 778. The court noted that the transportation agency also failed to make a motion within a reasonable time for leave to file a late claim. *Id* at 788.

[120] *See also* In re Jensen, 995 F.2d 925, 930 (9th Cir. 1993).

[121] COOKE, *supra* note 97, at § 20.05[2][c].

[122] In re Jensen, 929 F.2d. at 930.

[123] In re Chateaugay Corp., 944 F.2d 997, 1005 (2d Cir. 1991).

[124] *See* In re Jensen, 995 F.2d at 929 (distinguishing this approach based on the debtor's conduct from the "relationship" approach, but describing both similarly as relating to the time of the act that gives rise to the relationship).

[125] COOKE, *supra* note 97, at § 20.05[2][b].

[126] COOKE, *supra* note 97, at § 20.05[2][a]; In re Jensen 995 F.2d at 930; Matter of Chicago, Milwaukee, St. Paul & Pacific Railroad, 974 F.2d 775, 787 (7th Cir. 1987).

[127] Matter of Chicago et al., 974 F.2d at 788; Chemetron Corp. v. Jones, 72 F.3d 341 (2d Cir. 1995).

[128] In re Buttes Gas & Oil Co., 182 B.R. 493 (S.D. Tex. 1994); *but see* Chemetron Corp,. 72 F.3d 341, 348–49 (3d Cir. 1995) (debtor not required to publish notice in Ohio despite knowledge of contamination issues at Cleveland facility).

course of the bankruptcy proceedings. Where, however, the bankruptcy took place prior to the enactment of CERCLA in 1980, it has been held that a CERCLA claim could not have arisen at that time and therefore could not have been discharged by the bankruptcy.[129] Other exceptions would be in the unusual circumstance where the debt is, for some reason, specifically excepted from discharge, or where the acts or omissions giving rise to the environmental claim are found to be "willful and malicious injury by the debtor to another entity or to the property of another entity."[130] Additionally, if the reorganized successor corporation has become a party with statutory liability as an owner, operator, or arranger on its own account, it may be subject to suit in that capacity without the need to demonstrate that it succeeds to the predecessor company's liability.[131] Finally, under certain circumstances, a successor entity that has purchased the assets of a bankrupt corporation may be deemed to have succeeded to the liabilities of that corporation under exceptions to the usual rule that an asset purchaser does not take on the liabilities of the seller. These exceptions include where the purchasing corporation has expressly or impliedly agreed to assume the seller's debts, where the transaction amounts to a de facto consolidation or merger of the corporations, where the purchaser is merely a continuation of the seller business, and where the transaction is entered into fraudulently to escape liability.[132]

c. Other Defenses

There are many other defenses PRPs may raise to a cost recovery action brought by a transportation agency or that a transportation agency may raise as a defendant PRP. Although mentioning all possible defenses for any PRP is beyond the scope of this text, the following are some additional defenses that have specific implications for cases involving transportation agencies.

i. Use of Federal Funds by State and Local Transportation Agency.—A defendant to a cost recovery action brought by a transportation agency may argue that the transportation agency is not the "real party in interest" because it did not fund the remediation. Since a transportation agency may be substantially aided by Federal-Aid Highway Funds or other federal, state, or local sources of funds for the remediation, the transportation agency is arguably not the only entity with a vested interest in obtaining recovery from PRPs. In *Washington State Department of Transportation v. Washington National Gas Co.*,[133] a PRP unsuccessfully raised this argument in defense of the WSDOT's cost recovery action.[134] The District Court for the Eastern District of Washington held that the WSDOT was the real party in interest even where FHWA had funded the remediation and was to receive reimbursement for any costs recovered. Since the WSDOT was obligated to reimburse FHWA for any costs recovered, FHWA would be estopped from pursuing the defendant and there would be no double recovery.[135]

ii. State Immunity From Suit—Discussion of Seminole Tribe of Florida v. Florida, et al.—Any state transportation agency that is named as a PRP in cost recovery action in federal court may and should raise the defense of sovereign immunity. As a result of the United States Supreme Court's decision in *Seminole Tribe of Florida v. Florida*,[136] the federal courts lack the power to hear causes of action brought under CERCLA against a state and its agencies. *Seminole Tribe* is one of several recent Supreme Court pronouncements in the complicated field of Eleventh Amendment jurisprudence. A brief discussion of Eleventh Amendment law will be helpful in understanding *Seminole Tribe* and the immunity available to a transportation agency.

The Eleventh Amendment itself states that: "The judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by citizens of another state, or by citizens or subjects of any foreign state."[137]

Prior to *Seminole Tribe*, two exceptions had developed to this rule of state immunity from suits by private citizens in federal court. First, states may consent to sue and thereby waive their Eleventh Amendment rights.[138] Second, Congress may in the same circumstances abrogate state sovereign immunity, if it has expressed a clear intent to do so and is legislating

[129] Matter of Penn Central Transp. Co., 944 F.2d 164, 168 (3d Cir. 1991), *cert. denied*, 112 S. Ct. 1262 (1992).

[130] 11 U.S.C. § 523(a)(6); *see* COOKE, *supra* note 97, at § 20.05[4].

[131] CADE, *supra* note 20, at 23–24.

[132] *See, e.g.* Chicago Truck Drivers, Helpers and Warehouse Workers Union Pension Fund v. Tasemkin, 59 F.3d 48 (7th Cir. 1995); The Ninth Avenue Remedial Group v. Allis Chatmers Corp., 195 B.R. 716 (N.D. Ind. 1996). *See also* COOKE, *supra* note 97, at § 18.03[6][d]; citing inter alia, United States v. Mexico Feed & Seed Co., Inc. 980 F.2d 478, 487 (8th Cir. 1992) (setting forth the tests for successor liability).

[133] WSDOT v. Washington Natural Gas Co. et al, U.S.D.C. No. C89-415TC (W.D. October 22, 1992), *aff'd*, 59 F.3d 793 (9th Cir. 1995), discussed in CADE, *supra* note 20, at 22.

[134] *Id.*

[135] *Id.*

[136] Seminole Tribe of Florida v. Florida, et al., 517 U.S. 44 (1996).

[137] U.S. CONST. AMEND. XI.

[138] Pennhurst State School & Hosp. v. Halderman, 465 U.S. 89 (1984).

under Section 5 of the Fourteenth Amendment[139] or the power of the Commerce Clause.[140]

In *Pennsylvania v. Union Gas,* the United States Supreme Court upheld CERCLA's provisions as permitting a private right of action against states.[141] The court found that CERCLA fell within the second exception to Eleventh Amendment immunity as Congress in passing CERCLA had expressed a clear intent to abrogate state sovereign immunity and to allow such suits.[142]

In *Seminole Tribe*, the court revisited the issues of Congressional abrogation and explicitly overturned the *Union Gas* decision.[143] The court held that Congress does not have the power, when legislating pursuant to the Commerce clause, to abrogate states' Eleventh Amendment sovereign immunity from suit by private citizens.[144] Although *Seminole Tribe* did not specifically involve CERCLA, it overturned the grounds on which private citizens had been allowed to sue states under statutes like CERCLA. Later cases have followed *Seminole Tribe* in the CERCLA context and made clear that the state and its agencies cannot be subjected to suit by private parties in federal court.[145] In the wake of *Seminole Tribe*, it seems that absent a waiver by the state, or Congressional legislation pursuant to the Fourteenth Amendment, state sovereign immunity cannot be abrogated.

Seminole Tribe and other recent Supreme Court cases[146] mark a substantial change in the sovereign immunity doctrine, with a movement toward increasing states' rights.[147] Because a state transportation agency may be affected by this movement, state transportation agencies should make an effort to stay abreast and informed of subsequent developments in this area.

iii. Counterclaims by Defendants Against Agency.— Defendants in a cost recovery action may assert counterclaims against a transportation agency.[148] Such counterclaims are particularly likely where the agency has owned or conducted remediation at the site. Although counterclaims (otherwise known as recoupment) are permitted against agencies, such claims may be subject to dismissal where the agency handled the hazardous substances with due care and acted in accordance with the NCP.[149]

d. Recovery from Superfund

Transportation agencies may be able to recover remediation costs from the federal Superfund rather than initiating lawsuits against PRPs. Section 106 of CERCLA permits a party who has been ordered to perform a removal or remedial action and who has completed such action to apply for reimbursement from the federal Superfund.[150] Recovery would be available to an agency where it can prove that either it is not a responsible party or it is not a current owner or operator because it acquired the site involuntarily.

e. Cost Recovery Under State Law

Many states have environmental remediation statutes allowing for cost recovery actions. A transportation agency may be able to also employ a state's remediation statute to pursue PRPs. State environmental remediation statutes may differ from CERCLA on a number of issues, as discussed more fully in the following section. Recovery from state remediation funds, instead of private parties, may also be available under these state statutes.

C. STATE HAZARDOUS WASTE LAWS*

It is not enough to simply be aware of CERCLA. A transportation agency also needs to be familiar with the state hazardous waste laws for the state or states in which it is operating. State hazardous waste laws often supplement or facilitate the objectives of the federal hazardous waste statutes, specifically RCRA and CERCLA. There are often aspects of hazardous waste management and remediation that are not covered by the federal statutes. Furthermore, state hazardous waste cleanup laws also create new remedies, as well as new sources of liability exposure, for transportation agencies involved in acquiring right-of-way or other facilities.

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[139] Fitzpatrick v. Bitzen, 427 U.S. 445 (1976).

[140] Pennsylvania v. Union Gas Co., 491 U.S. 1, 14–15 (1989).

[141] *Id*. at 13.

[142] *Id*.

[143] Seminole Tribe, 517 U.S. at 72.

[144] *Id*.

[145] *See, e.g*., Burnette v. Carothers, 192 F.3d 52 (2d Cir. 1999), *cert. denied*, 121 S. Ct. 657 (2000).

[146] *See, e.g*., Alden v. Maine, 527 U.S. 706 (1999) (applying *Seminole Tribe* to age discrimination claim; College Sav. Bank v. Fla. Postsecondary Educ. Expense Bd., 527 U.S. 666 (1999); Fla. Prepaid Postsecondary Expense Bd. v. College Sav. Bank, 527 U.S. 627 (1999); Cour d'Alene Tribe v. Idaho, 521 U.S. 261 (1997) (suit in federal court against state to quiet title to submerged lands of a lake and river is barred by the Eleventh Amendment); Kimel v. Fla. Board of Regents, 528 U.S. 62 (2000).

[147] *See* "Environmental Law Division Notes," *Can States Squirm out of Liability?: The 11th Amendment and CERCLA*, March 2000 *ARMY LAW* 36; Courtney E. Flora, *An Inapt Fiction: The Use of the Ex Parte Young Doctrine for Environmental Citizen Suits Against States After Seminole Tribe,* 37 ENVTL. L. 935 (1997); David Milton Whalin, JOHN C. CALHOUN BECOMES THE TENTH JUSTICE: STATE SOVEREIGNTY, JUDICIAL REVIEW AND ENVIRONMENTAL LAW AFTER JUNE 23, 1999, 27 B.C. ENVTL. AFF. L. REV. 193 (2000); *See also*, Steven G. Calabresi, *A Constitutional Revolution*, *WALL ST. J.*, July 10, 1997, at A14 (these cases "mark the beginning of a quiet revolution in American constitutional law").

[148] CADE, *supra* note 20, at 24.

[149] *Id*.

[150] *Id.*

* This section relies, in part, upon the discussion of this subject in DANIEL P. SELMI & KENNETH A. MANASTER, STATE ENVIRONMENTAL LAW, ch. 9 (2001).

This section examines a selection of state hazardous waste laws to emphasize why transportation agencies must have familiarity with their state's hazardous waste laws. However, a comprehensive analysis of all existing statutes or planned developments of state hazardous waste laws is beyond the scope of this chapter.

1. State Approaches to Site Cleanup[151]

A majority of states have enacted legislation that parallels the objectives of CERCLA and promotes the remediation of abandoned hazardous waste sites.[152] However, state cleanup laws vary considerably in both their approaches and complexity.[153] Some states exactly mirror CERCLA, while others differ substantially. The statutes generally define categories of responsible parties that are held liable for site investigation and remediation. A state may order a private party to remediate a site or may itself undertake remediation and then seek reimbursement from the responsible parties for its costs. Many states have a special fund analogous to the Federal Superfund, which may be drawn on for remediation costs. Some states permit private cost recovery actions, whereas other states only permit the state environmental agency to pursue parties responsible for the release or disposal of hazardous wastes.[154] To illustrate some of the possible variations in how the states treat this subject, three different states' laws are discussed below.[155]

a. New Jersey

The cleanup of hazardous waste in New Jersey is in substantial part controlled by the Spill Compensation and Control Act (the Spill Act).[156] The Spill Act generally prohibits the discharge of hazardous substances.[157] However, the Spill Act does not apply to discharges of hazardous substances pursuant to and in compliance with the conditions of a federal or state permit.[158] The Spill Act requires any party who may be subject to liability for a discharge of a hazardous substance, including petroleum, to immediately notify the state's Department of Environmental Protection and Energy (DEP).[159] Failure to notify DEP can result in a myriad of problems for responsible parties, including administrative civil penalties, a civil lawsuit, a temporary or permanent injunction, and liability for the costs of cleanup and the costs of restoring and replacing natural resources damaged or destroyed by the discharge.[160] Liability for remediation is strict, joint, and several.[161]

The financial mechanism for cleaning contaminated sites is the Spill Compensation Fund.[162] The Fund is strictly liable for the costs of restoring, repairing, and replacing any real or personal property damaged or destroyed by a discharge, lost income from the loss of use of the property, costs of restoring or replacing natural resources, and loss of state or local tax revenues.[163] However, parties found responsible for contaminated sites must reimburse the Fund.[164] The Spill Act also allows private parties to seek reimbursement from responsible parties for remediation costs.[165] Costs expended to remediate discharged petroleum products are therefore recoverable by both the DEP and by private parties.

The second key component of New Jersey's hazardous waste cleanup law is the Industrial Site Recovery Act (ISRA).[166] As a precondition to the sale or transfer of industrial facilities, the ISRA requires the owner or operator of the facility to make a written certification that there has been no discharge of hazardous waste at a site or to remediate the site prior to the transfer.[167]

b. California

In California, cleanup of hazardous waste is governed by the Hazardous Substance Account Act (the Act).[168] The stated intent of this legislation is to (a) establish a program to provide authority for responses to releases of hazardous substances, including spills and hazardous waste disposal sites that pose a threat to the public health or the environment; (b) compensate persons, under certain circumstances, for out-of-pocket medical expenses and lost wages or business income resulting from injuries proximately caused by exposure to releases of hazardous substances; and (c) make available adequate funds in order to permit the State of California to assure payment of its 10 percent share of the costs mandated by CERCLA.[169] The Act is modeled after CERCLA.[170] In fact, the Act uses cross references

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[151] DANIEL P. SELMI & KENNETH A. MANASTER, STATE ENVIRONMENTAL LAW, at § 9:2 (2001).

[152] *Id*.

[153] *Id.*

[154] *See, e.g*., MASS. GEN. LAWS ANN. ch. 21E, § 5 and TEX. HEALTH & SAFETY CODE § 362.344.

[155] This discussion follows SELMI & MANASTER, *supra* note 151, at § 9.2-9.5.

[156] N.J. STAT. ANN. § 58:10-23.11 (West 1992).

[157] N.J. STAT. ANN. § 58:10-23.11c (1992, 2002 Supp.).

[158] N.J. STAT. ANN. § 58:10-23.11c.

[159] N.J. STAT. ANN. § 58:10-23.11e and N.J. Stat. Ann. § 58:10-23.11b.

[160] N.J. STAT. ANN. § 58:10-23.11e.

[161] N.J. STAT. ANN. § 58:10-23.11g.c.1.

[162] N.J. STAT. ANN. § 58:10-23.11o.

[163] N.J. STAT. ANN. § 58:10-23.11g.

[164] N.J. STAT ANN. § 58:10-23.11g.

[165] N.J. Stat. Ann. § 58:10-23.11f(2); *See* SELMI & MANASTER, *supra* note 151, at § 9:3, n.4; *See* N.J. STAT. ANN. § 58:10-23.11g.

[166] N.J. STAT. ANN. § 13:1K-6 *et seq*.; *See* 2 JAMES T. O'REILLY ET AL., RCRA AND SUPERFUND § 15.20 (2d ed. 2001).

[167] N.J. STAT. ANN. § 13:1K-6; *See* O'REILLY ET AL., *supra* note 166 at § 15.21.

[168] CAL. HEALTH & SAFETY CODE § 25300 *et seq*. (West 1999, 2003 Supp.).

[169] CAL. HEALTH & SAFETY CODE § 25301(a)–(c) (West 1999, 2003 Supp.).

[170] O'REILLY ET AL., *supra* note 166, at § 15.11.

to CERCLA in identifying PRPs.[171] Its definition of certain terms, including the definition of "hazardous substances,"[172] also mirrors CERCLA's.

Under California's Act, strict liability is applied to responsible parties. But, unlike the New Jersey statute, responsible parties are not jointly and severally liable.[173] Instead, responsible parties are liable only for the proportion of damages that they cause.[174] The Act contains authority for the Department of Toxic Substances Control within the California Environmental Protection Agency to initiate removal or response actions.[175] The Act also grants the Department of Toxic Substances Control the authority to allow a city or county to initiate a removal or remediation action if the city or county first obtains the Department's approval for its proposed remedial actions.[176] State, city, and county cleanups are financed through the Hazardous Substance Account.[177] Like the New Jersey Spill Act, California's Act also provides for a private right of action.[178] Further, the Act permits contribution claims for cost recovery among responsible parties identified by the state.[179]

c. Colorado

Colorado lacks a separate state statutory scheme for assessing and allocating liability for the cleanup of hazardous waste contamination. Instead, Colorado has authorized its Department of Public Health and Environment to cooperate with EPA in the implementation of CERCLA in that state to the extent that the federal response action is consistent with state interests.[180] The authorization includes accepting the state's share of CERCLA response costs for cleanup and post cleanup monitoring and maintenance.[181] A hazardous substance response fund is funded with a solid waste disposal fee, and used to provide Colorado's share of response costs for cleaning up federal disposal sites, state cleanups at natural resource damage sites, remediation activities under the federal CWA that are necessary to prevent a site from being added to the federal NPL, and clean up of brownfields sites where there is no responsible party and remediation will allow site redevelopment.[182]

2. Implications for State Transportation Agencies

As evidenced by the examples discussed above, state analogs to CERCLA vary substantially and will impact transportation agencies differently. For example, some states, such as New Jersey and Massachusetts, address substances such as petroleum products within their state schemes, even though the substances are not encompassed by CERCLA's definition of hazardous substance.[183] Some, such as New Jersey, adopt comprehensive programs restating and expanding upon the federal law provisions, while others, such as Colorado, rely largely on the federal statute as the vehicle for addressing disposal site concerns. Consequently, a transportation agency should not simply assume that a state hazardous substance control law is analogous to CERCLA. Rather, a transportation agency should carefully examine each state's statutory and regulatory provisions to avoid unnecessary exposure or liability.

3. Liability Standards Under State Laws

Under CERCLA, strict liability is imposed on parties who are responsible for the release or threatened release of hazardous substances.[184] Among the state statutory schemes, some follow the strict liability model of CERCLA, whereas others impose different standards of liability. This section examines the various standards employed.

a. Strict Liability or Fault

Liability is strict under CERCLA, which means parties are liable regardless of fault or negligence.[185] Most states utilize this approach,[186] and generally either parallel the CERCLA language[187] or specifically incorporate CERCLA provisions by reference.[188] One

[171] CAL. HEALTH & SAFETY CODE § 25323.5.

[172] O'REILLY ET AL., *supra* note 166, at § 15.11; CAL. HEALTH & SAFETY CODE § 25316.

[173] SELMI & MANASTER, *supra* note 151, at § 9:4.

[174] CAL. HEALTH & SAFETY CODE §§ 25363(a)–(b), (d).

[175] CAL. HEALTH & SAFETY CODE § 25358.3.

[176] CAL. HEALTH & SAFETY CODE § 25351.2; *See* SELMI & MANASTER, *supra* note 151, at § 9:4.

[177] CAL. HEALTH & SAFETY CODE § 25330; *See* SELMI & MANASTER, *supra* note 151, at § 9:4.

[178] CAL. HEALTH & SAFETY CODE § 25372; O'REILLY ET AL., *supra* note 166, at § 15.11. Under California law, a person may apply to the State Board of Control for reimbursement.

[179] CAL. HEALTH & SAFETY CODE § 25363(e).

[180] COLO. REV. STAT. § 25-16-103.

[181] COLO. REV. STAT. § 25-16-104.

[182] COLO. REV. STAT. §§ 25-16-104.5, 25-16-104.6.

[183] 42 U.S.C. § 9601(14), MASS. GEN. L. ch. 21E, § 4; N.J. STAT. ANN. § 58:10-23.11b (definition of "hazardous substances").

[184] 42 U.S.C. §§ 9601(32); 9607(a).

[185] *Id.*

[186] O'REILLY ET AL., *supra* note 166, at § 15.07.

[187] *See*, *e.g.*, DEL. CODE ANN. tit. 7, § 9105(b) ("Each person who is liable…is strictly liable, jointly and severally, for all costs associated with a release from a facility."); IOWA CODE ANN. tit. XVII, § 455B.392.1 ("A person having control over a hazardous substance is strictly liable to the state for all of the following"); MASS. GEN. L. ch. 21E, § 5(a) (Responsible parties "shall be liable, without regard to fault"); OR. REV. STAT. § 465.255(1) ("The following persons shall be strictly liable for those remedial action costs incurred by the state or any other person that are attributable to or associated with a facility and for damages for injury to or destruction of any natural resources caused by a release"); and discussion in SELMI & MANASTER, *supra* note 151, at § 9:7, n.3.

[188] IND. CODE ANN. § 13-25-4-8 ("A person that is liable under Section 107(a) of CERCLA…is liable, in the same

benefit to a state of using a strict liability standard is conservation of agency resources.[189] A state environmental agency need only establish that a release occurred and that the PRP contributed to the release.[190] To prove the additional element of fault could cause considerable expense, because evidence of fault is often both more subjective and within the control of the PRP.[191]

In some states, the environmental cleanup laws do not specify the basis of liability.[192] In these states, "it is left for government agencies, and ultimately for the courts to determine whether strict liability or some other standard will apply."[193]

b. Categories of Liable Parties

i. State Changes to the Pool of Liable Parties.—Some state hazardous waste laws broaden the categories of PRPs included in CERCLA, and some state hazardous waste laws address narrower categories of PRPs.[194]

ii. Treatment of Particular Categories.

1. Involuntary Owners and Fiduciaries.—CERCLA generally protects involuntary owners of property from liability.[195] Pursuant to CERCLA, state or local governmental units that acquire ownership or control of contaminated property through bankruptcy, tax delinquency, abandonment, or by the exercise of eminent domain are relieved from liability under CERCLA as long as the governmental entity did not cause or contribute to the release of the hazardous waste.[196] Similarly, individuals who acquire contaminated property "by inheritance or bequest" are exempt from CERCLA liability.[197] For the most part, state hazardous waste laws protect involuntary owners from liability as well.[198]

For transportation agencies, acquisition by condemnation or eminent domain may be an available defense to a cost recovery action brought under a state hazardous waste law.[199] To determine whether such a defense may be available to a transportation agency, the facts concerning the condemnation in issue should be analyzed in light of the particular state's hazardous waste law.

2. Innocent Landowners.—Under CERCLA, innocent landowners are those who demonstrate that they acquired a site that turned out to be contaminated despite the exercise of due diligence in making a preacquisition inquiry into the characteristics of the site.[200] Although CERCLA contains a defense for such landowners, the defense, with its unspecified and almost contradictory criteria, is difficult to meet. It is factually difficult, although not conceptually impossible, for a defendant to demonstrate that a careful preacquisition investigation of the site was adequate, yet did not produce any reason to know of the contamination.

Many state hazardous waste laws contain the innocent landowner defense.[201] However, some states' statutes, such as New Jersey's, do not provide for this defense.[202] Where the defense is available, its scope and criteria differ from state to state.[203] Transportation agencies should be aware of the nuances of this defense in their particular state.

3. Transporters.—Under CERCLA, a transporter of hazardous substances is liable only if the transporter "selected" the facility from which there is a release.[204] Some states have expanded transporter liability beyond this limited category. For example, Montana's hazardous waste statute imposes liability on "a person who accepts or has accepted a hazardous or deleterious substance for transport to a disposal treatment facility."[205] Even more broadly, Massachusetts' hazardous waste statute imposes liability on "any person who, directly or indirectly, transported any hazardous material to transport, disposal, storage or treatment vessels on sites from or at which there is or

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manner and to the same extent, for the state under this section."); CAL. GOV'T CODE § 53314.7 ("The scope and standard of liability for any costs recoverable…shall be the scope and standard of liability set forth in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Section 6901 *et seq*.")).

[189] SELMI & MANASTER, *supra* note 151, at § 9:7.

[190] *Id.*

[191] *Id.*

[192] *See*, *e.g.*, N.Y. ENVTL. CONSERV. LAW § 27-1313(4) (Statute authorizes Commissioner of the Department of Environmental Conservation to determine which persons may be subject to an administrative order to remediate a hazardous waste site according to "applicable principles of statutory common law liability."); KY. REV. STAT. ANN. §§ 224.01-400(15)(a) (Statute authorizes cost recovery action from "persons liable therefor"), and discussion in SELMI & MANASTER, *supra* note 151, at § 9:8.

[193] SELMI & MANASTER, *supra* note 151, at § 9:8.

[194] SELMI & MANASTER, *supra* note 151, at § 9:11.

[195] SELMI & MANASTER, *supra* note 151, at § 9:14.

[196] 42 U.S.C. § 9601(35)(A). For a discussion of the use of the eminent domain defense and its application to transportation agencies, see § 4.A.2.

[197] 42 U.S.C. § 9601(20)(D).

[198] SELMI & MANASTER, *supra* note 151, at § 9:14; citing MASS. GEN L. ch. 21E, § 2 (definition of "owner" and "operator," subsection (b)); 35 PA. STAT. ANN. § 6020.103 (definition of "owner or operator").

[199] *See*, *e.g.,* N.J. STAT. ANN. § 58:10-23.11g.d.(4); KY. REV. STAT. ANN. § 224.01-400(25) (defenses and limitations to liability are deemed to be those of CERCLA and Clean Water Act); MASS. GEN. L. ch. 21E, § 5(j) (conditional exemption for state agencies and public utility company rights-of-way).

[200] 42 U.S.C. § 9601(35).

[201] *See* SELMI & MANASTER, *supra* note 151, at § 9:12.

[202] SELMI & MANASTER, *supra* note 151, at § 9:12.

[203] O'REILLY ET AL., *supra* note 166, at §15.06.

[204] 42 U.S.C. § 9607(a)(4).

[205] MONT. CODE ANN. § 75-10-715(1)(d); *See* SELMI & MANASTER, *supra* note 151, at § 9:13.

has been a release or threat of release of such material."[206]

A transportation agency named as a PRP under a state statute as a "transporter" of hazardous substances needs to examine the particular statutory provisions at issue for possible safe harbors from liability. For example, under Iowa's state hazardous waste laws, liability as a transporter is avoided if it was misrepresented to the transporter that the substance was not hazardous.[207]

4. Lenders.—In 1996, Congress amended CERCLA by adding protections for lenders who hold a security interest in contaminated property.[208] The Asset Conservation, Lender Liability, and Deposit Insurance Protection Act of 1996 protects lenders from liability as long as the lender did not actively participate in the management of the property.[209] This protection extends to situations where the lender is forced to foreclose and resells or re-leases the property.[210] A number of states have likewise addressed concerns for lender protection by incorporating similar provisions into their own hazardous waste legislation.[211]

5. Cleanup Contractors.—Under CERCLA, cleanup contractors and consultants who perform cleanup related activities at a facility are protected from liability under an exemption for rendering care and advice.[212] State hazardous waste statutes generally include this protection from liability for cleanup contractors and consultants.[213] However, a cleanup contractor may be held liable if its malfeasance leads to further damage.[214] Depending upon the state, the level of wrongdoing must rise to either negligence or gross negligence for a cleanup contractor to be held liable.[215]

6. Miscellaneous Parties.—Some state statutes exempt from liability other categories of PRPs, some of which may encompass some transportation agencies under certain circumstances. For example, Pennsylvania's Hazardous Sites Cleanup Act protects from liability generators of household hazardous waste, as well as generators of certain scrap metals and certain lead acid storage businesses.[216] Transportation agencies involved in or anticipating involvement in cost recovery actions, whether as plaintiffs or as PRPs at a waste disposal site, should be aware of any exceptions contained in applicable statutes.

c. Joint and Several Liability

State hazardous waste laws also vary as to whether they follow CERCLA's joint and several liability standard. The majority of states employ joint and several liability or joint and several liability with apportionment for allocating remediation costs among responsible parties.[217] However, a minority of states, such as California and Arkansas, employ proportional liability, while others provide no statutory guidance at all.[218]

Joint and several liability with apportionment permits a party to prove its proportionate contribution to a site.[219] The evidentiary burden is usually on the responsible party seeking apportionment to prove that the remediation costs are divisible.[220]

Under a proportionate liability scheme, a responsible party is held liable only for a share of the response costs corresponding to its individual fractional share of responsibility for the contamination.[221] Because in certain circumstances it will be difficult to establish which party is responsible for which waste, some states clarify that proportionality is to be followed "to the extent practicable."[222]

d. State Variations on Enforcement

Under CERCLA, the EPA is provided with an arsenal of administrative and civil orders, penalties, liens, and injunctive relief that it may employ against a PRP.[223] State hazardous waste laws do not always provide state environmental agencies with the same set of tools.[224] This section briefly examines the variations among state hazardous waste laws with respect to enforcement, liens, and citizen suits.

i. Enforcement.—In most states, there are three basic mechanisms for enforcing state CERCLA laws. A state agency can issue an administrative order requiring the property owner or the party responsible for the discharge of hazardous waste to conduct remediation of

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[206] MASS. GEN. LAWS ANN. ch. 21E, § 5(a)(4); *See* SELMI & MANASTER, *supra* note 151, at § 9:13.

[207] IOWA CODE ANN. § 455B.392(4).

[208] SELMI & MANASTER, *supra* note 151, at § 9:15; Asset Conservation, Lender Liability, and Deposit Insurance Protection Act of 1996, Pub. L. No. 104-208 (Sept. 30, 1996), 110 Stat. 3009-462, 42 U.S.C. §§ 6991b(h)(9), 9601(20)(E)-(G).

[209] 42 U.S.C. § 9601(20)(D)(i).

[210] 42 U.S.C. § 9601(20)(D)(ii).

[211] SELMI & MANASTER, *supra* note 151, at § 9:15 citing ARK. CODE ANN. § 8-7-403(b)(2); CAL. HEALTH & SAFETY CODE § 25548.2; MASS. GEN. L. ch. 21E, § 2 (definition of "owner" and "operator," subsection (c)).

[212] 42 U.S.C. §§ 9607(d)(1), 9607(d)(2).

[213] SELMI & MANASTER, *supra* note 151, at § 9:16.

[214] *See*, *e.g.,* ARK. CODE ANN. § 8-7-413(b)(2).

[215] SELMI & MANASTER, *supra* note 151, at § 9:16.

[216] PA. STAT. ANN. tit. 35, § 6020.701(B)(3), (5).

[217] SELMI & MANASTER, *supra* note 151, at § 9:19; O'REILLY ET AL., *supra* note 166, at § 15.08.

[218] SELMI & MANASTER, *supra* note 151, at § 9:18.

[219] SELMI & MANASTER, *supra* note 151, at § 9:20, citing as an example, MASS. GEN. LAWS ANN. ch. 21E, § 5(a).

[220] *Id. See*, *e.g.,* MASS. GEN. LAWS ANN. ch. 21E, § 5(b); ALASKA STAT. § 46.03.822(i).

[221] CAL. HEALTH & SAFETY CODE § 25363(a); ARK. CODE ANN. § 8-7-414(a)(1); SELMI & MANASTER, *supra* note 151, at § 9:21.

[222] CAL. HEALTH & SAFETY CODE § 25363(b); ARK. CODE ANN. § 8-7-414(a)(2).

[223] 42 U.S.C. § 9706 and § 9797.

[224] SELMI & MANASTER, *supra* note 151, at § 9:22.

the pollution,[225] a state can assess a responsible party a monetary fine for failing to comply with an administrative order,[226] or a state can act on its own to clean the site.[227] If a state remediates the site itself, it can seek cost reimbursement from the responsible party or parties, as the case may be.[228]

Administrative orders cannot be reviewed prior to enforcement under CERCLA.[229] A party wishing to challenge the order prior to its implementation and enforcement has no available relief. Some states also prohibit any pre-enforcement review.[230] However, many states allow for pre-enforcement review of orders.[231] Depending on the state, the pre-enforcement review may be conducted by an administrative tribunal or cabinet agency official,[232] or it may be a judicial review.[233]

One major enforcement tool usually available to states is monetary penalties.[234] Although monetary penalties are included in nearly all of the state hazardous waste laws, there is variation as to their application and magnitude.[235] The primary use of monetary penalties is for failure to comply with an administrative order. For example, Massachusetts provides for civil penalties of up to $25,000 per day or criminal fines of the same amount along with imprisonment for a violation of any order under the cleanup statute.[236]

Under CERCLA, punitive damages may be imposed for a failure "without sufficient cause to properly provide removal or remedial action."[237] The punitive damages may be imposed "in an amount at least equal to, and not more than three times, the amount of any costs incurred."[238] Many states also allow punitive damages but differ as to the amounts allowed.[239]

ii. Cleanup Cost Liens.—Since the CERCLA Superfund and state remediation funds expend resources when removal or remedial actions are undertaken, there must be avenues available for the state to seek reimbursement of the fund. In recognition of the fact that many responsible parties may not have the funds or assets to pay response costs and penalties, CERCLA and many states have enacted lien provisions.[240] The lien provisions allow the governmental entity to assert a lien against the contaminated property or other assets of a responsible party. A local transportation agency should be aware of the possibility that a lien has been placed on property that it intends to acquire. A local transportation agency should also be aware that two types of liens exist—a "conventional" lien and a "superlien."

Conventional liens take priority over all claims except those secured by a prior perfected security interest.[241] Examples of conventional lien provisions include the lien provision contained in CERCLA,[242] and the lien provision in the Minnesota statutory scheme.[243]

In contrast, a superlien imposed on the property of persons liable for cleanup costs takes priority over all earlier claims and encumbrances.[244] The superlien has substantial implications for creditors, purchasers, mortgagors, and title insurers.[245] Where the amount of a superlien exceeds the value of the property at issue, other lien holders are unable to recover on their liens.[246] Such liens usually cover only the contaminated property itself.[247] Other property owned by the debtor, such as residential property, is usually subjected to only a conventional lien. Liens, including superliens, must typically be recorded in the land registry to be effective.[248]

State lien statutes may be vulnerable to attack on constitutional grounds given an interpretation of the federal CERCLA lien provision by the appeals court in *Reardon v. United States*.[249] In *Reardon,* the First

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[225] SELMI & MANASTER, *supra* note 151, at § 9:22; O'REILLY ET AL., *supra* note 166, at § 15.10.

[226] SELMI & MANASTER, *supra* note 151, at § 9:25.

[227] SELMI & MANASTER, *supra* note 151, at § 9:22.

[228] *Id.*

[229] 42 U.S.C. § 9613(h); O'REILLY ET AL., *supra* note 166, at § 15.10; SELMI & MANASTER, *supra* note 151, at § 9:24.

[230] SELMI & MANASTER, *supra* note 151, at § 9:24, citing WASH. REV. CODE ANN. § 70.105D.060; Flanders Indus., Inc. v. State of Michigan, 203 Mich. App. 15, 512 N.W.2d 328 (1993) (court held that Michigan Environmental Response Act does not provide for pre-enforcement judicial review of administrative orders).

[231] O'REILLY ET AL., *supra* note 166, at § 15.10.

[232] *See*, *e.g.*, KY. REV. STAT. §§ 224.01-400(15)(c), 224.10-420(1).

[233] SELMI & MANASTER, *supra* note 151, at § 9:24; *See*, *e.g.*, TEX. HEALTH & SAFETY CODE ANN. § 361.322(a); *See also* MASS. GEN. LAWS ch. 21E, § 10, providing for either administrative appeal or judicial review, at the environmental agency's option.

[234] SELMI & MANASTER, *supra* note 151, at § 9:25.

[235] *Id*.

[236] MASS. GEN. L. ch. 21E, § 11.

[237] 42 U.S.C. § 9607(c)(3).

[238] *Id*.

[239] SELMI & MANASTER, *supra* note 151, at § 9:25; *See also* CONN. GEN. STAT. ANN. § 22a-133g (punitive damages up to 1 ½ times the remediation costs incurred may be assessed against a responsible party who "negligently caused a hazardous waste disposal site").

[240] 42 U.S.C. § 9607(l); SELMI & MANASTER, *supra* note 151, at § 9:25.

[241] SELMI & MANASTER, *supra* note 151, at § 9:27.

[242] 42 U.S.C. § 9607(1)(l).

[243] MINN. STAT. ANN. §§ 514.671-514.672.

[244] SELMI & MANASTER, *supra* note 151, at § 9:28.

[245] *Id.*

[246] *Id.*

[247] SELMI & MANASTER, *supra* note 151, at § 9:29.

[248] *Id*.

[249] SELMI & MANASTER, *supra* note 151, at § 9:31; Reardon v. United States, 947 F.2d 1509 (1st Cir. 1991).

Circuit Court of Appeals held that CERCLA's lien against a piece of property amounted to a deprivation of private property without due process and was therefore unconstitutional because the lien provision in the statute failed to require that the property owner be notified and given a hearing before the EPA imposed its lien.[250] Despite this successful challenge to the CERCLA lien provision, the provision has not yet been amended to respond to the court's criticism; however EPA has implemented its authority to impose liens so as to provide adequate process.[251] A state environmental lien statute that fails to afford adequate due process protections would also be vulnerable to challenge on constitutional grounds.

iii. Citizen Suits.—In addition to cost recovery actions brought by the state, transportation agencies may be subject to suits brought by private citizens. Some states permit private citizens to initiate suits to compel cleanup or redress contamination problems as part of their hazardous waste statutes.[252] However, in states that allow private suits, some states limit the parties eligible to bring suit. These states impose "standing" limitations that require a party to have actually suffered harm from the discharge of hazardous waste.[253] In states without standing requirements, a transportation agency could conceivably be subject to a suit by individuals completely unassociated with the contaminated site in issue.

A transportation agency involved in an action brought under state CERCLA analogues should also assess the potential for the involvement of additional parties under statutory provisions authorizing third party intervention in a pending state enforcement proceeding, or state intervention in a pending citizens suit.[254] Either scenario can complicate and increase the difficulty of extracting oneself from the litigation. Although intervention may be permitted, it may be the case that private citizen suits are not permitted when the state has already commenced an enforcement action. Pennsylvania, for example, bars a citizen suit "when the department has commenced and is diligently prosecuting" an enforcement action.[255]

State private citizen suit provisions vary not only as to standing requirements but also as to the remedies offered.[256] Depending upon the state, remedies include monetary penalties, injunctive relief, and litigation costs, including reasonable attorney and witness fees to the prevailing (or substantially prevailing) party.[257] The ability to recover litigation costs provides an additional incentive to the bringing and facilitating of private citizen suits. The potential for facing litigation of this sort over the cleanup of a contaminated right-of-way, for example, is just one of many reasons why it is important for a transportation agency to understand applicable state CERCLA enactments in addition to the federal statute.

[250] *Id.*

[251] *See* United States v. Glidden Co., 3 F. Supp. 2d 823 (N.D. Ohio 1997).

[252] SELMI & MANASTER, *supra* note 151, at § 9:32.

[253] *Id.*

[254] In Pennsylvania, for example, both types of intervention are explicitly permitted by statute. PA. STAT. ANN. tit. 35, § 6020.1115(b).

[255] PA. STAT. ANN. tit. 35, § 6020.1115(b).

[256] SELMI & MANASTER, *supra* note 151, at § 9:31.

[257] SELMI & MANASTER, *supra* note 151, at § 9:37; *See, e.g.*, PA. STAT. ANN. tit. 35, § 6020.1115(b); WASH. REV. CODE ANN. § 70.105D.050(5)(a); N.J. STAT. ANN. § 2A:35A-10 (fee awards against a local agency capped at $50,000).

SECTION 5

ENVIRONMENTAL LAW AS IT APPLIES TO CONSTRUCTION AND OPERATION OF TRANSPORTATION PROJECTS

The following discussion addresses three of the major environmental regulatory programs potentially applicable to the construction and operation of transportation projects and facilities. CERCLA and the NPDES stormwater discharge program have particular relevance to the construction of transportation projects, but also apply to ongoing operations. The RCRA waste management requirements are an important consideration in the operation and maintenance of transportation facilities.

A. CERCLA LIABILITY: CONSTRUCTION AND OPERATION OF FACILITIES*

Through construction projects, as well as in the operation of their facilities, transportation agencies may engage in activity that leads to liability for the remediation of hazardous wastes under CERCLA. This section explores the common factual situations leading to CERCLA liability for transportation agencies and discusses strategies that transportation agencies may employ to limit or avoid liability.

1. What is an "Operator?"

Occasionally during the construction phase of a project previously unknown contamination is discovered at a site. Even at sites for which environmental assessments have been completed, more intensive contamination or a different type of contamination may be encountered during construction. As discussed in Section 5.A.2, a transportation agency may avoid CERCLA liability if it meets the requirements of the condemnation defense and handles these hazardous substances with due care.[1] If a transportation agency fails to handle hazardous substances with due care, by either failing to provide information to the contractor concerning the hazardous substances or by failing to stop a contractor from making a contaminated site worse, a transportation agency may be considered an "operator" under CERCLA.[2]

CERCLA imposes liability for operators of sites at which hazardous substances have been released.[3] Operator liability has generally been imposed by courts if the party had "authority to control the cause of the contamination at the time the hazardous substances were released into the environment."[4] In *United States v. Bestfoods*, the U.S. Supreme Court held that in order to be subject to liability as an operator, an entity "must manage, direct, or conduct operations specifically related to pollution, that is operations having to do with leakage or disposal of hazardous waste, or decisions about compliance with environmental regulations."[5] "Disposal" under CERCLA has been interpreted by courts to include disposal beyond a substance's initial introduction to the environment.[6] Subsequent dispersal, movement, or release of hazardous substances during excavations and fillings may also constitute a disposal.[7]

In *Kaiser Aluminum & Chemical Corp. v. Catellus Development Corp.*, the Court of Appeals for the Ninth Circuit held a contractor liable under CERCLA for making a contaminated site worse.[8] Hazardous substances had been initially released at the site in the 1940s.[9] However, the contractor's spreading of contaminated material to previously uncontaminated areas through excavation, filling, and grading also constituted a disposal because it was an "activity which produced the contamination."[10]

The broad interpretation of disposal applied in *Kaiser* to a contractor creates the possibility that a transportation agency would similarly be held liable where the agency had authority to control the disposal of hazardous substances at the site. Authority to control by a transportation agency may be founded on the agency's ability to investigate the site prior to construction, develop policy and guidelines for handling or removing the hazardous substances, and monitor and inspect the work of a contractor.

Construction contractors are often hesitant to perform work at a contaminated site as a result of *Kaiser* and its progeny.[11] Frequently such contractors request that a transportation agency enter into an agreement to hold the contractor harmless from any liability under CERCLA. States may prohibit agencies from entering into hold harmless or indemnification arrangements. Furthermore, such agreements must conform to any state law requirements that govern indemnification of construction contractors. Moreover, any agreement to indemnify or hold a contractor harmless should specifically exclude indemnification for

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* This section updates, as appropriate, and relies in substantial part upon DEBORAH L. CADE, *TRANSPORTATION AGENCIES AS POTENTIALLY RESPONSIBLE PARTIES AT HAZARDOUS WASTE SITES* (Legal Research Digest No. 34, Nat'l Coop. Highway Research Program, 1995).

[1] 42 U.S.C. §§ 9601(35)(A)(ii); 9607(b)(B). (All references to U.S.C. are West 1994, unless otherwise stated).

[2] *See, e.g.,* Kaiser Aluminum & Chemical Corp. v. Catellus Dev. Corp., 976 F.2d 1338 (9th Cir. 1992).

[3] 42 U.S.C. § 9607(a).

[4] Kaiser, 976 F.2d at 1341.

[5] United States v. Bestfoods, 118 S. Ct. 1876, 524 U.S. 51(1998), vacating United States v. Condova Chemical Co., 113 F.3d 572 (6th Cir. 1997) (*en banc*).

[6] *See, e.g.,* Lincoln Properties Ltd. v. Higgins, 823 F. Supp. 1528, 1536 (E.D. Cal. 1992).

[7] Kaiser, 976 F.2d at 1342. *See also* n.12.

[8] *Id*.

[9] *Id*. at 1340, n.1.

[10] *Id*. at 1342. *See also* Redwing Carriers, Inc. v. Saraland Apartments, 94 F.3d 1489, 1510 (11th Cir. 1996) ("disposal" includes the disposal of contaminated soil during the course of filling and grading a construction site) Anheuser-Busch Inc. v. Ford Motor Co., No. 93-526, 1997 U.S. Dist. LEXIS 3556 (W.D. Ky. Feb. 11, 1997) (altering the surface and subsurface condition of, and spreading or covering contamination over a site, constitutes disposal under CERCLA);

[11] *See, e.g.,* Ganton Technologies, Inc. v. Quadion Corp., 834 F. Supp. 1018, 1022 (N.D. Ill. 1993) (court held contractors that exacerbated preexisting condition liable, and followed *Kaiser* in holding that "disposal" is not limited to the initial introduction of contaminants into a site).

the contractor's own negligent or willful acts. A transportation agency should also consider incorporating in its bid specifications provisions for dealing with both known and unknown hazardous substances that may be encountered on a construction project. Such measures can alleviate concerns that may otherwise result in contractors inflating their bids to account for contingencies involving unknown contamination on the construction site. Contracts with environmental and engineering consultants in connection with site development services also frequently include environmental hold harmless and indemnification provisions.

2. Responsibility for Cleanup

After contamination of a construction site is discovered, the transportation agency may, for both practical and regulatory reasons, need to remediate the site in order to complete its project. Remediation could require paying for the cost of removing contaminated substances from a site or treating or containing contaminated substances at the site. Both the type of contamination and applicable federal and state remediation requirements will guide how the contaminated substances are handled.[12]

A transportation agency should not assume that contaminated soil must always be either removed or treated. In most cases, contaminated materials may not be reused as fill at a site. However, in many jurisdictions mildly contaminated materials may, under certain circumstances, remain as discovered.[13] Where the contaminated area will subsequently be paved so that direct human exposure is unlikely and where the contamination is unlikely to contribute to ground or surface water contamination, an environmental agency often will permit the contamination to remain on site.[14]

When a transportation agency is required to remediate a site in order to construct a transportation improvement, an environmental agency may require additional excavation beyond the limits of the originally planned area needed for transportation purposes. To the extent that more contaminated soil is exposed as a result of this expanded site work, further remediation may be required. The need to "chase" additional contamination outside the bounds of the planned transportation improvement in order to satisfy regulatory cleanup obligations may add significantly to the cost of a project and delay its completion. A transportation agency is best prepared to deal with both known and unexpected contamination when it has contemplated these issues in advance; addressed them as contingencies in the planning and budgeting process; and made early contact, and maintained good relations with, environmental regulators.

3. Operation of Maintenance Facilities

Many transportation agencies own maintenance facilities. Both current and historic operating practices at these maintenance facilities may expose the agency to CERCLA liability. Liability risks include contamination of the maintenance facility itself and contamination of groundwater affecting abutting and nearby properties, as well as the sale or disposal of supplies or equipment that subsequently contaminate a remote site.

Both the variety of substances stored at a maintenance facility and their breakdown products may be the source of a release of hazardous substances exposing an agency to liability under CERCLA or other environmental law. Substances of possible concern include: salt and other deicing chemicals, paint, solvents, batteries and transformers, fuel and vehicle maintenance fluids, street sweepings, and stockpiled construction materials of dubious origin. For example, starting batteries that are not being used for their intended purpose but are simply rusting and decaying may constitute a hazardous substance.[15] However, old tires stored at a maintenance facility may not be.[16]

Where a transportation agency sells or disposes of its supplies or equipment, it is exposed to potential liability as an "arranger" for the disposal of hazardous substances.[17] Transportation agencies may not avoid liability for improper disposal simply by showing that the remote site is an approved hazardous waste disposal facility. But due diligence inquiry concerning the practices, reputation, and regulatory track record of the disposal facility is nonetheless both appropriate and advisable.

The operation of a transportation system and attendant operational facilities will involve a great potential for the accidental release of hazardous substances through a leak, spill, collision, or other incident. Transportation agencies should be well aware of notification obligations that attend to the discovery of a release of hazardous substances under CERCLA. A person "in charge" of a facility or vessel is required to give notice "immediately" of any release of a hazardous substance in excess of a reportable quantity determined by regulation.[18] Notification is typically by telephone[19] to

[12] *See, e.g.,* State of Connecticut Remediation Standard Regulations, § 22a-133k-1, *et seq*.

[13] *See, e.g.,* Variances to soil remediation standards permitted under the State of Connecticut Remediation Standard Regulations, § 22a-133k-2(f), allowing for "engineered control."

[14] *Id*.

[15] Gould, Inc. v. A&M Battery & Tire Serv., 933 F. Supp. 431, 436 (M.D. Pa. 1996) (arranger liability supported by sale of batteries for lead recovery rather than their intended purpose of starting vehicles).

[16] Town of New Windsor v. Tesa Tuck, Inc., 935 F. Supp. 300, 305 (S.D.N.Y. 1996) (tires are not CERCLA hazardous substances).

[17] 42 U.S.C. § 9607(a)(3). See discussion at § 5.A.5.

[18] 42 U.S.C. § 9603(a); Regulations implementing the notification requirements, including the list of hazardous substances and their respective reportable quantities, are at 40 C.F.R. pt. 302 (July 1, 2001).

the National Response Center (NRC), which is staffed by the Coast Guard. The person reporting the spill or release should be prepared to identify themselves, the facility in question, and provide as much detail as possible about the release incident. Depending upon the substance released, notification may also or instead be required to the NRC or other agency under another provision of federal or state law.[20] For example, releases of petroleum products are encompassed by many state spill notification requirements, and in the case of releases to waters of the United States, by the Federal CWA's reporting requirement, but are generally not encompassed by CERCLA.[21]

To reduce liability risk under CERCLA, transportation agencies should implement appropriate hazardous materials inventory and handling practices at their maintenance facilities and ensure proper training of agency employees. Care should be taken when accepting stockpiles of earth materials and in disposing of surplus or obsolete supplies.

4. Outleasing of Facilities or Sites

A transportation agency may be exposed to CERCLA liability by leasing property it owns to a lessee who improperly disposes of hazardous substances. Transit stations and highway rest areas are among the facilities commonly leased to private parties. Conversely, a transportation agency may be exposed to liability when it acts as a lessee itself and leases a facility for its own use.

To protect itself, the transportation agency should require, in either case, that an environmental site assessment be completed prior to the commencement of the lease term. The environmental site assessment will establish the baseline condition of the site and may be used to predict what contamination problems could result from the lessee's intended use of the site. Whether the transportation agency is leasing the site from another party or is leasing out an owned site, defining the environmental condition of the site at the commencement of the lease term will help to protect the transportation agency from incurring liability for contamination it did not release.

Where the transportation agency owns the site, it may further protect itself by requiring that the lessee indemnify the agency for any costs associated with a release of hazardous substances at the site. The existence of an indemnification agreement is not a defense to government response actions brought under CERCLA.[22] However, an indemnification will provide the transportation agency the ability to recover remediation costs from a financially viable lessee.[23]

Where the transportation agency is a lessee, it should pay careful attention to the scope of the lease—particularly in locations with known or suspected contamination issues. Limiting both the geographic and the substantive scopes of the site lease to just those areas and rights that the agency needs for its intended use can be helpful in delimiting the agency's "authority to control" the site for purposes of determining its status as an "operator" or not. For example, the agency lessee may consider excluding from the leasehold interest a known or suspected environmental trouble spot if it is not strictly necessary for the agency's purposes. The agency may disclaim any rights to use or control the use of existing underground storage tanks or any rights below the surface of the site altogether.

5. Generator or Arranger Liability at Disposal and Treatment Facilities

Where a transportation agency sends waste for disposal to a landfill or other treatment or disposal facility, it is possible that the facility is or will some day be the subject of CERCLA litigation and that the agency will be identified as a PRP obliged to help pay for the facility's cleanup. To limit the potential for such liability, it is imperative that a transportation agency keep an accurate and complete record of its waste disposal as to quantity, substance, transporter, and ultimate disposal site. The agency should insist on receiving appropriate documentation (manifests or other form of receipt) documenting the chain of custody from agency facility to hauler to storage facility to the ultimate receipt of the waste for disposal at an authorized disposal facility.[24] Generally, the EPA names every entity that even a scintilla of evidence suggests may have disposed waste at a contaminated site. If the transportation agency cannot prove conclusively that either its waste was sent somewhere else or its waste was not hazardous, EPA is unlikely to dismiss the agency from the litigation.

In *B.F. Goodrich Co. v. Murtha*, the United States District Court for the District of Connecticut found that old tires and construction debris that were among the many materials at a landfill for which response costs were sought were not hazardous substances under CERCLA.[25] Such materials were not *per se* hazardous substances, and the claim that such materials might

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[19] The National Response Center number is currently 1-800-424-8802. 40 C.F.R. § 302.6.

[20] *See* SUSAN M. COOKE, THE LAW OF HAZARDOUS WASTE 2, § 8.01[3][f][iii]. Chapter 8 of the Cooke treatise addresses spill reporting generally in great detail. *See also* Gibson, *Superfund Response Action Process*, at § 9.02, *in* STATE & LOCAL GOVERNMENT ENVIRONMENTAL LIABILITY (Clark Boardman Callaghan, 1997).

[21] *See, e.g.,* MASS. GEN. LAWS ch. 21E; 33 U.S.C. § 1321(b)(3); 42 U.S.C. § 9601(14).

[22] 42 U.S.C. § 9607(e)(1).

[23] *See, e.g.,* Hatco Corp. v. W.R. Grace & Co.-Conn., 59 F.3d 400 (3d Cir. 1995); Purolator Products Corp. v. Allied Signal, Inc., 772 F. Supp. 124, 129 (W.D.N.Y. 1991); Jones-Hamilton Co. v. Kop-Coat, Inc., 750 F. Supp. 1022 (N.D. Cal. 1990), *reversed in part,* 959 F.2d 126 (9th Cir. 1992).

[24] Accurate record keeping is also a legal requirement under federal and state waste management regulations. *See* 42 U.S.C. § 6924(a).

[25] B.F. Goodrich Co. v. Murtha, 840 F. Supp. 180 (D. Conn. 1993).

contain hazardous substances if broken down to their constituent parts was still insufficient to support a finding that hazardous substances had been disposed.[26]

6. Ferry Operations[27]

A ferry system may be exposed to liability for historical contamination in sediment, tidelands, or shoreline areas. For such liability, the transportation agency may argue the defense to CERCLA that it acquired the areas by the exercise of eminent domain. Such an argument is identical to the defense a transportation agency would raise where contaminated property has been discovered as part of a highway project. A ferry system may also be exposed to liability where there is discharge of hazardous substances from a vessel or ferry. Paint removal or other modifications to a ferry could result in the release of hazardous substances.

Certain ferry operations must periodically dredge tideland sediments. When the ferry operation performs this periodic dredging, it must consider whether the sediments contain hazardous substances from either the ferry operations or from historical uses of the site. The ferry operation should investigate the condition of the sediments. Moreover, because a Section 404 dredging permit is required,[28] the ferry operation should disclose any known contamination to the United States Army Corps of Engineers in its application for a dredging permit. It has been suggested that this may be a way to preserve a defense under Section 107(j) of CERCLA by arguing that the removal and disposal of the sediments was a federally permitted release.[29]

7. Contamination by Abutting Landowners

Highway projects often abut sites, such as manufacturing companies and gas stations, that may be the source of hazardous substances. The hazardous substances may migrate to the transportation agency's project or the transportation agency's right-of-way. Because a transportation agency has no control over the activity of the abutting owner it may be entitled to invoke the third party defense to CERCLA liability.[30]

However, a defense to liability will not resolve the contamination problem. Whether the transportation agency needs to remediate the contamination on its site will likely depend upon the level and extent of contamination and whether the state environmental agency requires response actions. If response actions are required, the agency may need to initiate litigation against the offending abutter, or use its own funds to remediate the contamination.

8. Defenses to CERCLA

For a discussion of the defenses to CERCLA liability and their applicability to transportation agencies, see Section 5.B.3.

B. CWA IN CONSTRUCTION AND OPERATION

Roads, highways, and bridges, among other transportation facilities, are a significant source of pollutants that make their way to water bodies, waterways, and associated wetlands. Melting snow and rain water pick up dirt and dust from road and highway construction and maintenance. Particles of worn tires, vehicle fluids, road salt, pesticides and fertilizers, litter, and other debris are among the substances of concern that wash from roads into the water.[31] The following discussion focuses in particular on permits for stormwater discharge from construction projects, which require permitting under the NPDES program. Stormwater permitting requirements are also discussed in Section 4.B.2.

1. Stormwater Runoff and NPDES

a. Permits for Stormwater Discharge Associated with Construction Activity

Section 402(p) of the CWA, adopted in 1987 and amended in 1992, imposed a moratorium until 1994 on requiring NPDES permits for point source discharges composed entirely of stormwater, with certain exceptions. One exception to the moratorium covered discharge associated with industrial activity.[32] As part of its "Phase I" regulation of industrial stormwater discharge, EPA defined "stormwater discharge associated with industrial activity" to encompass construction activities disturbing 5 acres or more.[33]

In 1992, EPA issued a general permit for discharges of stormwater from such construction activities to reduce the administrative burden of issuing individual NPDES permits to thousands of subject projects. A general permit can be exercised by anyone who qualifies under the terms of the permit and complies with its procedural and substantive conditions. This allows a broad category of actors and activities with similar basic characteristics to be permitted generically, thereby streamlining the permitting process and avoiding the need for agency review of individual permit applications. The original 1992 general permit expired in September 1997. A general permit for all EPA regions except Regions 4, 5, and 6 was reissued and took effect on February 17, 1998.[34] Regions 4 and 6 reissued their general permits a short time later; in

[26] *Id*. at 188.

[27] This discussion is taken from DEBORAH L. CADE, TRANSPORTATION AGENCIES AS POTENTIALLY RESPONSIBLE PARTIES AT HAZARDOUS WASTE SITES 10–11 (Legal Research Digest No. 34, Nat'l Coop. Highway Research Program, 1995).

[28] 33 U.S.C. § 1344. *See* discussion in § 3A *supra*.

[29] 42 U.S.C. § 9607(j); CADE, *supra* note 27, at 11.

[30] 42 U.S.C. § 9607(b)(3).

[31] OFFICE OF WATER, U.S. ENVTL. PROTECTION AGENCY, CONTROLLING NONPOINT SOURCE RUNOFF POLLUTION FROM ROADS, HIGHWAYS AND BRIDGES (EPA-841-F-95-008a, 1995), available at http://www.epa.gov/OWOW/NPS/roads.html.

[32] 33 U.S.C. § 1342(p).

[33] 40 C.F.R. § 122.26(b)(14)(x).

[34] 63 Fed. Reg. 7858 (February 17, 1998).

Region 5, the individual states are each delegated and have issued their own stormwater general permits.[35] The new general permits authorize stormwater discharges from existing, as well as new, construction sites.

To receive a new stormwater permit (whether individual or general), the person or entity subject to the permit requirement should first notify the EPA regional office of its intent to obtain a permit. In addition, if there is an applicable state program, similar notice should be given to the appropriate state agency. EPA and the state agency should provide the necessary permit application form and instructions for any additional required information. Such information may include a topographical site map showing key stormwater features, a history of activities, any accidental releases, and estimates of potential pollutants as well as information needed to determine compliance with the NHPA, ESA, and other statutory requirements.

Under the schedule established by EPA regulations, an individual permit application should be submitted 180 days prior to the start of a new industrial activity or before a new discharge is proposed to begin; or in the case of construction activities that will disturb more than 5 acres, 90 days prior to the start of construction.[36] To renew an existing permit, a new permit application must be completed and submitted no less than 180 days prior to the expiration date of the current permit.[37] If the application deadline is missed, the regional EPA administrator must approve a late submission; however, the submission date cannot exceed the date the current permit expires. If a new permit is not received before the existing permit expires, the existing permit remains in effect until the new permit is received, as long as the application for the new permit was submitted prior to the deadline or late submission approval was received.[38]

To obtain authorization to discharge under the general permit for construction activities disturbing 5 acres or more, an operator must develop a stormwater pollution prevention plan (SWPPP) or participate in a joint plan with others, in accordance with the requirements of the construction general permit. In addition, a completed Notice of Intent (NOI) form must be submitted to EPA or state environmental authorities (if delegated to implement the NPDES stormwater program). Stormwater discharges are authorized 2 days after the postmark date of the NOI, unless EPA notifies the party otherwise.[39]

EPA's Phase II stormwater regulation expands the NPDES stormwater permitting program to cover discharge associated with "small construction activity," defined as including sites from 1 to 5 acres in size. These Phase II stormwater permit requirements were the result of litigation by environmental groups, which found EPA's exclusion of construction projects affecting fewer than 5 acres from the Phase I permit requirements to be arbitrary and capricious.[40] Construction sites may be excluded from the Phase II permit requirement based on a lack of potential impact from rainfall erosion, or where controls are not needed to preserve water quality. Conversely, construction sites smaller than 1 acre may be regulated based on a potential for contribution to a violation of water quality standards or potential for significant contribution of pollutants.[41] EPA publishes guidance on best management practices for controlling runoff pollution from roads and highways, including highway construction sites.[42] In addition, FHWA has adopted the AASHTO guidelines for controlling erosion and sediment runoff during highway construction.[43]

Discharges from construction sites associated with small construction activity require authorization by March 10, 2003.[44] The Phase II regulation also extends until March 10, 2003, the time for seeking a permit for stormwater discharge associated with industrial activity from a facility, other than an airport, owned or operated by a municipality having a population of less than 100,000.[45] This is the same date as the deadline for applying for a permit for discharge from a municipal separate storm sewer system in a jurisdiction having fewer than 100,000 people. Discharge through a municipal separate storm sewer collection system serving a population of more than 100,000 required NPDES permitting under the Phase I rules. EPA has indicated its intent to use general permits for all discharges newly regulated under Phase II to reduce

[35] 63 Fed. Reg. 7858. The general permit for Region 4 (Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, and Mississippi) was reissued on March 31, 1998 (63 Fed. Reg. 15622, April 3, 1998) and revised 2 years later (65 Fed. Reg. 25122, April 28, 2000). The general permit for Region 6 (Louisiana, Arkansas, Oklahoma, Texas, and New Mexico) was reissued on June 24, 1998, effective July 6, 1998 (63 Fed. Reg. 36490, July 6, 1998). In Region 5 (Ohio, Indiana, Michigan, Illinois, and Wisconsin), the individual state environmental agencies rather than EPA handle general stormwater permits.

[36] THE OFFICE OF COMPLIANCE FACT SHEET SERIES: APPLYING FOR A STORMWATER PERMIT UNDER THE PHASE I PROGRAM, DOC. NO. 1151 (1998) (available at http://www.transource.org/water/index.htm).

[37] 40 C.F.R. § 122.26(e)(6).

[38] TRANSPORTATION ENVIRONMENTAL RESOURCE CENTER, THE OFFICE OF COMPLIANCE FACT SHEET SERIES: PHASE I NPDES PERMIT RENEWALS, DOC. NO. 1150 (1998) (available at http://www.transcource.org/shared_files/renewal.htm).

[39] 63 Fed. Reg. 7858 (Feb. 7, 1998).

[40] Natural Resources Defense Council, Inc. v. EPA, 966 F.2d 1292, 1306 (9th Cir. 1992).

[41] 40 C.F.R. § 122.26(b)(15); § 122.26(c).

[42] OFFICE OF WATER, U.S. ENVTL. PROTECTION AGENCY, EROSION, SEDIMENT, AND RUNOFF CONTROL FOR ROADS AND HIGHWAYS (EPA-841-F-95-008d, 1995). Available at http://www.epa.gov.owow.nps/education/runoff.html.

[43] 23 C.F.R. § 650.211.

[44] 40 C.F.R. § 122.26(e)(8).

[45] 40 C.F.R. § 122.26(e)(1)(ii).

the administrative burden associated with permitting, although individual permits may be used in specific circumstances.[46]

b. Water Quality Standards

The NPDES permitting system generally limits discharges through technology based controls and effluent limits that restrict the amount of pollution that a source may discharge into receiving waters, based on the technological capabilities of the source.[47] However, water quality controls based on state adopted water quality standards may also be imposed as a condition of an NPDES permit.[48] The Water Quality Act of 1987 placed a greater emphasis on attaining state water quality standards and ensuring the maintenance of water quality sufficient to support existing uses of water.[49]

Section 303 of the CWA requires states to develop water quality standards that are subject to approval by the EPA.[50] Under EPA regulations implementing this authority, state water quality standards must include: (1) "use designations" for waters protected by the Act,[51] (2) "water quality criteria sufficient to protect these designated uses,"[52] and (3) an "antidegradation policy."[53] Use designations are defined by states to ensure that designated uses are at least as protective of water quality as existing uses and that uses that could lead to discharges of unacceptable levels or types of pollutant discharges are not allowed.[54] Water quality criteria are defined by states based on designated uses such as drinking, swimming, and the protection of fish and wildlife; are required to "represent a quality of water that supports a particular use"; and may be "expressed as constituent concentrations, levels or narrative statements."[55] Finally, a state antidegradation policy must meet requirements for protection of both existing uses and "high quality waters constitut[ing] an outstanding national resource" such as those with exceptional recreational or ecological significance.[56] The antidegradation policy must also protect other waters having quality in excess of that needed to protect existing uses unless there is a finding that lower quality can continue to fully support existing uses and is justified to accommodate important social or economic development.[57]

Compliance with water quality standards is reviewed primarily as a part of the Section 401 Water Quality Certification process. A Section 401 Water Quality Certification is required in connection with all NPDES permits. Many transportation projects may be eligible for NPDES permitting under a general permit for discharges of stormwater from construction activities that does not impose project-specific water quality controls.[58] Even if an individual permit is required, permitting authorities most often consider technology-based standards and effluent limits and less frequently impose water quality limitations as a permit condition.[59] However, if necessary to achieve compliance with applicable water quality standards, NPDES permits must contain water quality-based limitations even more stringent than those of technology-based standards.[60] The many variable factors that must be considered in evaluating the effect of a discharge to receiving waters, such as flow volumes and pollutant levels, complicate the analysis of whether water quality standards are likely to be exceeded. Thus, while state water quality standards are an important part of the CWA regulatory scheme, state standards may not always be specifically addressed through NPDES permit conditions.

C. LIABILITY UNDER RCRA

RCRA regulates the active generation, storage, transport, treatment, and disposal of both solid and hazardous waste materials.[61] RCRA, with its voluminous regulations promulgated by the U.S. EPA, creates a complex and immensely detailed regime for "cradle to grave" waste management. The standards for solid and hazardous waste management created by RCRA and its implementing regulations have significant implications for transportation agencies, which generate, store, transport, treat, and dispose of solid and hazardous wastes. RCRA should be distinguished from CERCLA and state analogue "superfund" programs that focus on the identification and remediation of accidental or unauthorized releases of hazardous substances, as discussed above in subsection 6.A.

Violations of RCRA and its implementing regulations by a transportation agency may result in federal, state, or citizen enforcement actions that give rise to significant penalties. In addition, RCRA violations frequently generate adverse publicity that may embarrass the transportation agency. This section contains an overview of the RCRA regulatory scheme in

[46] 64 Fed. Reg. 68737 (December 8, 1999).

[47] 33 U.S.C. § 1313; *see* PUD No. 1 of Jefferson County v. Washington Dep't of Ecology 511 U.S. 700, 704 (1994).

[48] 33 U.S.C. § 1311(b)(1)(c).

[49] 40 C.F.R. § 131.12; *see* Westvaco Corp. v. United States EPA, 899 F.2d 1383, 1385 (4th Cir. 1990).

[50] 40 C.F.R. § 131.6.

[51] 40 C.F.R. § 131.6(a).

[52] 40 C.F.R. § 131.6(c).

[53] 40 C.F.R. § 131.6(d).

[54] 40 C.F.R. § 131.10.

[55] 40 C.F.R. § 131.3(b).

[56] 40 C.F.R. § 131.12(a)(3).

[57] 40 C.F.R. § 131.12(a)(2).

[58] *See* § 3.B.

[59] *See* Natural Resources Defense Council v. EPA, 915 F.2d 1314, 1317 (9th Cir. 1990).

[60] 65 Fed. Reg. 43586, 43588 (July 13, 2000).

[61] Pub. L. No. 94-580 (Oct. 21, 1976), 90 Stat. 2796, codified as 42 U.S.C. § 6901 *et seq*.

order to provide transportation agencies with the knowledge and tools to avoid the pitfalls and liabilities of RCRA.

1. Goals, Policies, and Objectives of RCRA

RCRA was first passed as a federal regulatory statute in 1976 and was formally named the Solid Waste Disposal Act.[62] RCRA was comprehensively amended in 1984. The statute addresses the national concern about the health impacts of hazardous waste and the misuse of land resulting from discarding solid wastes and hazardous wastes.

Congress sets forth a series of legislative findings in the initial sections of RCRA.[63] These findings state that there is "a rising tide of scrap, discarded and waste materials,"[64] and that "serious financial, management, intergovernmental and technical problems" have arisen regarding the disposal of such waste materials.[65] Moreover, the increase in solid wastes has caused the needless pollution of land from open dumps and sanitary landfills,[66] which also causes contamination of drinking water and the air.[67] Congress also found that hazardous wastes are a particular threat to human health and the environment,[68] and that where hazardous waste management is improperly performed in the first instance, corrective action is likely to be expensive, complex, and time consuming.[69]

Congress listed 11 specific objectives of RCRA based on its legislative findings.[70] For solid wastes, RCRA is intended to provide technical and financial assistance to state and local governments and administrative agencies for the development and implementation of solid waste management plans.[71] For solid wastes that are also hazardous wastes, RCRA's objective is to assure that hazardous waste management practices are conducted in a manner that protects human health and the environment.[72] RCRA calls for establishing a viable federal-state partnership to carry out its purposes, and a state may be delegated the responsibility for implementing some or all of the RCRA regulatory scheme within its borders.[73]

2. Waste Materials Subject to Regulation

A transportation agency must consider what type of wastes it generates and comes into possession of and whether those wastes are subject to RCRA. Wastes are segregated under RCRA's regulatory scheme into "hazardous wastes" or nonhazardous "solid wastes." RCRA and its implementing regulations provide criteria to distinguish these two types of wastes.[74]

a. Statutory Definitions of Solid Waste and Hazardous Waste

"Solid waste" is broadly defined under RCRA to include: "[A]ny garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility, and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial mining and agricultural activities, and from community activities…."[75]

Solid wastes are regulated under the portion of RCRA known as subtitle D. Note that "solid wastes" regulated under RCRA need not in fact be in a solid state, but may include wastes in liquid, semi-solid, and gaseous states.

"Hazardous waste" is defined as a specific subset of solid waste. A "hazardous waste" is defined to include:

> [A] solid waste, or combination of solid wastes, which because of its quality, concentration, or physical, chemical or infectious characteristics may—(A) cause, or significantly contribute to an increase in mortality, or an increase in serious irreversible, or incapacitating reversible illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.[76]

Hazardous wastes are regulated under subtitle C of RCRA.

b. EPA Definitions of Wastes

In the regulations implementing RCRA, the definition of "solid waste" is further refined through definition of the term "discarded material." A "discarded material," as that term is used in the definition of solid waste, is defined as "any material that is abandoned in the sense of being disposed of, burned, incinerated, or stored, accumulated or treated before, or in lieu of, burning or incineration, recycled, or considered inherently waste-like."[77] A solid waste is any discarded waste that is not explicitly excluded from the solid waste category in RCRA's regulations.[78]

The definition of "hazardous waste" is further refined in RCRA's implementing regulations to include characteristic hazardous wastes and listed hazardous wastes. Characteristic hazardous wastes are wastes that are considered hazardous because they exhibit any of the "characteristics of hazardous waste."[79] These characteristics include ignitability,[80] corrosivity,[81]

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[62] Pub. L. No. 89-272, tit. II, See note following 42 U.S.C.A. 690 (West 1995).

[63] *See* 42 U.S.C. §§ 6901, 6902.

[64] 42 U.S.C. § 6901(a)(2).

[65] 42 U.S.C. § 6901(a)(3).

[66] 42 U.S.C. § 6901(b)(1).

[67] 42 U.S.C. § 6901(b)(4).

[68] 42 U.S.C. § 6901(b)(5).

[69] 42 U.S.C. § 6901(b)(6).

[70] 42 U.S.C. § 6902(a).

[71] 42 U.S.C. § 6902(a)(1).

[72] 42 U.S.C. § 6902(a)(4).

[73] 42 U.S.C. § 6902(a)(7).

[74] *See generally* 42 U.S.C. §§ 6903(5), (27), and 40 C.F.R. pt. 261.

[75] 42 U.S.C. § 6903(27).

[76] 42 U.S.C. § 6903(5) (July 1, 2001).

[77] 40 C.F.R. § 261.2.

[78] 40 C.F.R. § 261.2(a)(1).

[79] 40 C.F.R. § 261.2(a)(2)(iii)(d).

[80] 40 C.F.R. § 261.21.

reactivity,[82] and toxicity.[83] Listed wastes are those listed in specific published lists of the EPA as being hazardous.[84]

A transportation agency should survey its facilities and operations to determine what types of waste the agency generates, stores, treats, handles, transports, or disposes of. As to each waste identified, the agency should consider whether it is excluded from regulation, a solid waste, a listed hazardous waste, or a characteristic hazardous waste. Where the waste is not expressly listed, it will be necessary to test the waste to determine whether it fits the characteristic hazardous waste criteria. Among the wastes that transportation agencies should consider and evaluate in this regard are vehicle maintenance wastes, including fluids and parts such as brake linings and tires; infrastructure maintenance wastes such as paints and sealants, street sweepings, silt from drainage systems on rights-of-way and at vehicle maintenance and storage facilities; contaminated soil, dredged materials, and dewatering fluids encountered during construction of a highway or other transportation facility; and all other substances that an agency may be responsible for generating, storing, and disposing of. Because of the cost and complication involved in handling hazardous waste in compliance with RCRA, transportation agencies should consider strategies for minimizing waste generally and minimizing hazardous waste particularly through thoughtful procurement, inventory, and operational practices.

The following discussion provides an overview, in outline form, of the major aspects of the RCRA regulations likely to be of interest to transportation agencies.

i. Types of Waste Excluded from Definitions.—Certain types of wastes are specifically excluded from the "hazardous waste" definitions. Excluded wastes that may be generated in connection with the operations of transportation agencies include:

- Household waste.[85]
- Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment.[86]
- Certain petroleum contaminated media and debris.[87]
- Arsenically treated wood.[88]
- Certain used oil filters.[89]
- Used oil distillation bottoms used to manufacture asphalt products.[90]

Although such wastes are not regulated as hazardous under RCRA, they should still be safely and properly disposed of.

ii. Mixture Rule.—In its implementing regulations, the EPA defines a mixture of a listed hazardous waste and a nonhazardous solid waste as a hazardous waste.[91] This definition was intended to prevent the use of waste dilution to evade hazardous waste management requirements, and originally covered all mixtures of solid waste with any quantity of hazardous waste.[92] This rule was successfully challenged in 1991 on procedural grounds.[93] Subsequently EPA reissued the rule and promulgated a series of proposals for further revision. A final rule adopted in 2001 revised the mixture rule so that certain mixtures containing solid wastes and one or more characteristic hazardous wastes would not be considered hazardous waste after they no longer exhibit a hazardous waste characteristic. The excluded mixtures are those that contain wastes that are listed as hazardous only because they fail a characteristic of ignitability, corrosivity, or reactivity. Mixtures containing wastes that are regulated because of their toxicity do not qualify for the exemption.[94] One aspect of the mixture rule that may be particularly pertinent to a transportation agency is the "contained in" policy by which soil and other environmental media that exhibit hazardous waste characteristics or contain a listed hazardous waste must be managed as hazardous waste.[95]

3. Generators—Standards Applicable to Hazardous Waste Generators

A transportation agency that owns or operates a facility that generates hazardous waste will be subject to the hazardous waste generator regulations promulgated under RCRA.[96] This section contains a summary of regulations applicable to generators that are most relevant to transportation agencies. The implementation of an environmental management system and periodic regulatory "self-audits" are techniques used by industry that may be helpful to a transportation agency for maintaining compliance with generator waste management and recordkeeping requirements.

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[81] 40 C.F.R. § 261.22.

[82] 40 C.F.R. § 261.23.

[83] 40 C.F.R. § 261.24.

[84] 40 C.F.R. § 261, subpt. D.

[85] 40 C.F.R. § 261.4(b)(1). Household waste includes garbage, trash, and sanitary wastes in septic tanks derived from single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas. 40 C.F.R. § 261.4(b)(1).

[86] 40 C.F.R. § 261.4(b)(12).

[87] 40 C.F.R. § 261.4 (b)(10).

[88] 40 C.F.R. § 261.4(b)(9).

[89] 40 C.F.R. § 261.4 (b)(13).

[90] 40 C.F.R. § 261.4(b)(14).

[91] 40 C.F.R. § 261.3(a)(2)(iv).

[92] *See* 66 Fed. Reg. 27271, May 16, 2001 (Without the mixture rule, generators could potentially alter waste so that it no longer meets the listing description without detoxifying, immobilizing, or otherwise effectively treating waste).

[93] Shell Oil Co. v. EPA, 950 F.2d 741 (D.C. Cir. 1991).

[94] 40 C.F.R. § 261.3(g)(2); 66 Fed. Reg. 27266 (May 16, 2001). See note following § 261.3 (July 1, 2001).

[95] *See* discussion at 66 Fed. Reg. 27286 (May 16, 2001).

[96] *See generally* 40 C.F.R. pt. 262.

a. Definition of Generator

"Generator" is not defined in RCRA itself. However, RCRA's regulations state that a "generator" is "any person, by site, whose acts or process produces hazardous waste…whose act first causes a hazardous waste to become subject to regulation."[97]

b. Hazardous Waste Determination

The generator of a waste must determine whether the waste is hazardous. As discussed above, the generator should consider whether the waste is excluded from RCRA regulation, a solid waste, a listed hazardous waste, or a characteristic hazardous waste. When a waste is not explicitly listed as hazardous, it will be necessary to test the waste, in accordance with an approved EPA method, to determine whether it fits the characteristic hazardous waste criteria.[98]

c. EPA Identification Numbers

Generators of hazardous waste must apply for and receive an EPA identification number.[99] Applications must be made on the appropriate EPA form.

d. Pre-Transport Requirements

Prior to causing hazardous waste to be transported from a facility, a hazardous waste generator must comply with certain pre-transportation requirements under the RCRA regulations and the Department of Transportation requirements.[100] These pre-transportation requirements include packaging,[101] labeling,[102] marking,[103] and placarding.[104]

A generator may store hazardous waste on site for 90 days or less without triggering the requirements that apply to permanent treatment storage and disposal facilities (TSDFs).[105] However to avoid the requirements applicable to TSDFs, the generator must:

1. Place waste in containers, tanks, and/or drip pads;[106]
2. Clearly mark the date on which the period of accumulation commenced (visible for inspection) on each container;[107]
3. Label each container, tank, and/or drip pad as "Hazardous Waste;"[108]
4. Observe standards applicable to TSDFs that involve "preparedness and prevention" and "contingency planning and emergency procedures."[109]

e. Manifest Requirements

Any generator that offers hazardous wastes for transportation must prepare a document known as a manifest on the standardized form, available from the EPA.[110] The manifest requires a description of the amount and type of hazardous waste to be transported.[111] The generator must sign the manifest[112] and must designate the facility that will handle the hazardous waste in question.[113] The generator must also designate one alternative facility that will handle the waste in the event that the originally designated facility cannot handle the waste.[114] Copies of the manifest are provided to each transporter of the waste and the TSDF that accepts the waste.[115] Upon receipt of the waste, the TSDF is required to send one copy of the signed and completed manifest back to the generator.[116]

f. Recordkeeping and Reporting

With respect to recordkeeping, a hazardous waste generator must retain a copy of each manifest for 3 years after the date it receives the signed and completed manifest from the TSDF that ultimately accepted the waste.[117]

With respect to reporting, there are two types of reports a generator may have to generate. If the generator never receives a signed manifest from the TSDF that was supposed to accept the waste, it must file an exception report with the EPA regional office.[118] The exception report is due 45 days after the date the waste was accepted by the initial transporter. Prior to filing the report, and within 35 days of the date the waste was accepted by the initial transporter, the generator must attempt to contact the TSDF to learn what happened to the waste.[119]

In addition to the exception report, a hazardous waste generator must file a biennial report with its EPA regional office.[120] Among other criteria, the biennial report must include hazardous waste output per year and procedures or practices the generator has implemented to reduce the volume and toxicity of its wastes.[121]

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[97] 40 C.F.R. § 260.10.

[98] The testing procedures that EPA has mandated appear in appendices to 40 C.F.R. pt. 261.

[99] 40 C.F.R. § 262.12(a).

[100] *See generally* 40 C.F.R. § 262.30 *et seq*. and 49 C.F.R. pt. 172 *et seq*.

[101] 40 C.F.R. § 262.30 and 49 C.F.R. pts. 173, 178, 179.

[102] 40 C.F.R. § 262.31 and 49 C.F.R. pt. 172.

[103] 40 C.F.R. § 262.32 and 49 C.F.R. pt. 172.

[104] 40 C.F.R. § 262.33 and 49 C.F.R. pt. 172, subpt. F.

[105] 40 C.F.R. § 262.34(b).

[106] 40 C.F.R. § 262.34(a)(1) and 40 C.F.R. pt. 265, subpts. I, J, and W.

[107] 40 C.F.R. § 262.34(a)(2).

[108] 40 C.F.R. § 262.34(a)(3).

[109] 40 C.F.R. § 262.34(a)(4) and 40 C.F.R. pt. 265, subpts. C and D.

[110] *See generally* 40 C.F.R. pt. 262, subpt. B.

[111] *See* EPA Form 8700-12.

[112] 40 C.F.R. § 262.22.

[113] 40 C.F.R. § 262.20(b).

[114] 40 C.F.R. § 262.20(c).

[115] 40 C.F.R. § 262.23.

[116] *Id*.

[117] 40 C.F.R. § 262.40(a).

[118] 40 C.F.R. § 262.42.

[119] *Id*.

[120] 40 C.F.R. § 262.41.

[121] *Id*.

g. Small Quantity Generators

If a transportation agency generates hazardous waste, it should consider whether it qualifies for small quantity generator status. In RCRA's implementing regulations, the EPA has established two classes of small quantity generators: (1) those that generate between 100 and 1,000 kg of hazardous wastes per month and (2) those that produce less than 100 kg of hazardous waste per month.[122] However, if the transportation agency generates waste classified as "acutely hazardous" waste, it will probably not be entitled to small quantity generator status.

Small quantity generators of the first class are subject to only some of the requirements applicable to larger generators. For example, for recordkeeping a small quantity generator has 60 days, instead of 45 days, to file an exception report with the EPA stating that it has not received a copy of the manifest from the TSDF indicating acceptance of the waste.[123] With respect to reporting, these small quantity generators do not need to prepare biennial reports.[124]

The second class of small quantity generators (those that generate less than 100 kg of hazardous waste per month), also known as very small quantity generators, are exempt from most of the generator requirements under certain conditions.[125] However, to qualify for the exemption, very small generators must meet certain minimum standards, such as the transportation of their hazardous wastes to a TSDF with a valid permit.[126]

To exclude some generators from both the small quantity generator status and very small quantity generator status, where the wastes they generate warrant particular attention even at low quantities, the EPA has identified "acute hazardous waste."[127] If a generator would normally qualify for small quantity generator status, but produces acutely hazardous wastes above certain minimal quantities, the generator is not a small quantity generator.[128]

4. Transporters—Requirements Applicable to Hazardous Waste Transporters

If a transportation agency transports hazardous wastes that either it has generated, or that have been generated by another entity, it becomes subject to RCRA's regulations governing hazardous waste transporters.[129] As with generators, transporters of hazardous waste must complete manifests and comply with certain recordkeeping requirements.[130]

Even if a transportation agency does not transport hazardous wastes, the RCRA transporter requirements merit consideration when an agency is selecting a transporter for its hazardous wastes. A transportation agency will want to select a reputable, responsible transporter. The transportation agency should consider the EPA and state environmental enforcement records, as well as the proposed transporter's financial circumstances and insurance coverage.

a. Manifest Requirements

A transportation agency that transports hazardous wastes should only accept hazardous wastes from a generator who has a manifest accompanying the waste.[131] The transportation agency must sign and date the manifest upon receipt of the hazardous waste[132] and must transport the waste with the manifest.[133] The transportation agency must also comply with the terms of the manifest by shipping the waste to the TSDF specified therein.[134]

For transportation agencies that operate ferry systems, there are additional RCRA transporting requirements applicable to ferries or any water transporters of hazardous waste to consider.[135] Similarly, RCRA regulations also establish specific requirements for shipments of hazardous waste involving rail transporters[136] and transporters of hazardous waste from a small quantity generator.[137]

b. Recordkeeping Requirements

Hazardous waste transporters must keep copies of all manifests for a 3-year period.[138] The manifests should be signed by the generator, the transporter, and either the next designated transporter or the owner or operator of the designated TSDF.[139] Additional recordkeeping requirements exist for water transporters[140] and railroad transporters.[141]

c. Hazardous Waste Discharges During Transportation

If hazardous waste is discharged during transportation, a transporter must undertake "appropriate immediate action" to protect human health or the environment.[142] The transporter is required to either remediate the discharge or comply with the requested action of federal, state, or local officials to ensure that the hazardous waste is not a hazard to human health or the environment.[143]

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[122] 40 C.F.R. § 262.44 and §§ 261.5(b), (g).
[123] 40 C.F.R. § 262.42(b).
[124] 40 C.F.R. § 262.44.
[125] 40 C.F.R. §§ 261.5(b), (g).
[126] *Id*.
[127] 40 C.F.R. §§ 261.31, 261.32, and 261.33(e).
[128] 40 C.F.R. § 261.5(e).
[129] *See generally* 40 C.F.R. pt. 263.
[130] *See generally* 40 C.F.R. pt. 263, subpt. B.
[131] 40 C.F.R. § 263.20(a).
[132] 40 C.F.R. § 263.20(b).
[133] 40 C.F.R. § 263.20(c).
[134] 40 C.F.R. § 263.21(a). Where the transporter is unable to transport the hazardous waste to the TSDF designated in the manifest, the transporter is required to contact the generator for further direction. 40 C.F.R. § 263.21(b).
[135] 40 C.F.R. § 263.20(e).
[136] 40 C.F.R. § 263.20(f).
[137] 40 C.F.R. § 263.20(h).
[138] 40 C.F.R. § 263.22(a).
[139] *Id*.
[140] 40 C.F.R. § 263.22(b).
[141] 40 C.F.R. § 263.22(c).
[142] 40 C.F.R. § 263.30(a).
[143] 40 C.F.R. § 263.31.

Where hazardous wastes are discharged during transportation, a transporter must also provide immediate notice of the discharge to the National Response Center and subsequently provide a written report to the Office of Hazardous Materials Regulation of the U.S. Department of Transportation.[144]

5. Regulation of Treatment, Storage, and Disposal Facilities

A transportation agency that treats, stores, or disposes of hazardous wastes is subject to the RCRA regulations applicable to TSDFs.[145] Because it is unlikely that a transportation agency would own or operate a TSDF itself, the requirements for TSDFs are summarized only generally in this section. However, a general knowledge of the TSDF requirements will aid transportation agencies in selecting a reputable and responsible disposal facility for its hazardous wastes. A transportation agency should carefully select a TSDF to reduce any risk of RCRA liability for improper storage, treatment, or disposal. The EPA and state environmental agency permit compliance status and enforcement actions, as well as the TSDF's financial circumstances and insurance coverage, are among the factors that merit consideration in a transportation agency's selection of a TSDF.

a. Identification Numbers and Permits

An owner or operator of a TSDF must apply for an EPA identification number for its facility.[146] Additionally, a TSDF owner or operator must apply for and receive a TSDF permit from either the EPA or the authorized state agency.[147] The TSDF application has both an introductory Part A and a more specific Part B. Both the Part A application and the Part B application must be submitted before a new TSDF may be operated.[148]

b. Interim Status

Certain TSDFs qualify for interim status, under which RCRA permits the TSDF to continue operating while its permit application is pending. To be eligible for interim status, a TSDF must comply with the interim status RCRA regulations,[149] which are parallel, but not identical to, the RCRA regulations that apply to fully permitted TSDFs.

c. Manifest Recordkeeping and Reporting Requirements

TSDFs must sign and date manifests to acknowledge receipt of the hazardous waste delivered to them.[150] TSDFs must also return copies of the manifest within 30 days to the transporter and generator.[151] Copies of the manifests must be kept for 3 years.[152] Any discrepancies between the manifest and the type or quantity of waste received must be reconciled.[153] If a significant discrepancy remains unresolved, the TSDF must notify the EPA within 15 days of receipt of the waste.[154]

TSDFs are required to keep operating records.[155] The operating records must include, among other things, a description of the quantity of each hazardous waste received and the method and date of its treatment, storage and disposal; the location of each waste within the facility; and results of waste analyses, trial tests, and inspections.[156]

There are also a variety of reports that a TSDF owner or operator must file with the EPA or an authorized state. These include a biennial report of waste management activities,[157] an "unmanifested waste" report within 15 days of a TSDF's receipt of hazardous waste unaccompanied by a manifest;[158] and certain specialized reports, such as an incident report in the event of a hazardous waste release, fine, or explosion.[159]

d. Facility Inspection Requirements

Owners or operators of TSDFs are required to perform periodic self inspections.[160] The inspections must be conducted in accordance with a self-developed written schedule intended to identify problems before they become harmful to human health or the environment.[161] Results of the self inspections must be kept in an inspection log or summary, which must be retained for at least 3 years from the date of inspection.[162] Where the inspection reveals any malfunction of equipment or structures, the owner or operator of the TSDF must take remedial actions to ensure that the malfunction does not lead to an environmental or human health hazard.[163]

e. Personnel Training Requirements

TSDF personnel must be properly trained in the areas to which they are assigned.[164] The personnel must be trained within 6 months of their employment and must take part in an annual review thereafter.[165] The TSDF owner or operator is required to retain training

[144] 40 C.F.R. § 263.30(c).
[145] *See generally* 40 C.F.R. pt. 264.
[146] 40 C.F.R. § 264.11.
[147] *See* 40 C.F.R. pt. 270, subpt. B.
[148] 40 C.F.R. § 270.10.
[149] 40 C.F.R. pt. 265.
[150] 40 C.F.R. §§ 264.71–.72.
[151] *Id.*
[152] *Id.*
[153] 40 C.F.R. § 264.72.
[154] *Id.*
[155] 40 C.F.R. § 264.73.
[156] *Id.*
[157] 40 C.F.R. § 264.75.
[158] 40 C.F.R. § 264.76.
[159] 40 C.F.R. § 264.56(j).
[160] 40 C.F.R. § 264.15.
[161] 40 C.F.R. § 264.15(a).
[162] 40 C.F.R. § 264.15(d).
[163] 40 C.F.R. § 264.15(c).
[164] 40 C.F.R. § 264.16.
[165] 40 C.F.R. § 264.16(b).

records on its current personnel until the facility is closed.[166]

f. Contingency Planning and Emergencies

TSDF operators must have a contingency plan designed to minimize hazards to human health and the environment in the event of an explosion, fire, or unplanned release of hazardous wastes.[167] The RCRA regulations set forth specific criteria that must be included in the plan, such as a list of all emergency equipment at the facility and an evacuation plan for facility personnel.[168] Copies of the plan must be submitted to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.[169]

g. Location, Operation, and Design Standards

RCRA's implementing regulations contain specific standards that govern the location, design, and operation of TSDFs. These standards are primarily designed to reduce additional risk and pertain to seismic considerations[170] and the protection of floodplains,[171] salt dunes, salt beds, and underground mines and caves.[172]

h. Groundwater Monitoring Requirements

Owners and operators of TSDFs are required to conduct groundwater monitoring beneath their facilities.[173] Where groundwater contamination above applicable regulatory standards exists, the TSDF must undertake corrective action to remediate the groundwater.[174]

i. Corrective Action Requirements

Owners and operators of TSDFs must undertake corrective action for all releases of hazardous wastes from their facilities.[175] The corrective action measures required, and a compliance schedule for completion, are specified in the TSDF's permit.[176] Corrective actions must be implemented beyond the facility's boundary where necessary to protect human health and the environment.[177]

j. Closure and Post-Closure Status

TSDFs must be closed in a manner that will minimize any further maintenance and will control, minimize, or eliminate any post-closure release of hazardous waste.[178] To close, owners and operators of TSDFs must prepare and implement written closure plans.[179] In addition, owners or operators must prepare and implement written post-closure plans that identify any post-closure activities such as groundwater monitoring.[180]

k. Financial Responsibility

TSDF owners and operators must maintain insurance for bodily injury and property damage caused by sudden accidental occurrences arising from the operation of the facility.[181] In addition, TSDFs must provide financial assurance that they have the resources to close their facility.[182] The financial assurance may be provided by a closure trust fund, surety bond, standby letter of credit, closure insurance, a written guarantee from the TSDF's owner or operator's parent corporation, or a financial test prescribed by regulation.[183]

6. Underground Storage Tank Requirements

RCRA and its implementing regulations set forth technical standards for owners and operators of underground storage tanks (USTs).[184] The regulations address both existing tanks that may have caused environmental problems and new tanks that should be designed and operated to prevent future problems.

A transportation agency will be subject to these standards at any of its facilities where it stores petroleum or other regulated substances. Where a transportation agency owns a fleet of vehicles, it is likely that an UST is located in at least one of its facilities. The regulations require tank registration and contain requirements for release reporting, investigation, confirmation, tank closure, and financial responsibility. The following sections generally outline these requirements.[185]

a. Regulated Tanks

The term UST is defined as: "[A]ny one or combination of tanks (including underground pipes connected thereto) which is used to contain an accumulation of regulated substances, and the volume of which (including the volume of the underground pipes connected thereto) is ten per centum or more beneath the surface of the ground…."[186]

RCRA itself and its implementing regulations specifically exempt certain tanks from regulation.[187] If a

[166] 40 C.F.R. § 264.16(e).
[167] 40 C.F.R. § 264.51.
[168] 40 C.F.R. § 264.52(f).
[169] 40 C.F.R. § 264.53.
[170] 40 C.F.R. § 264.18(a).
[171] 40 C.F.R. § 264.18(b).
[172] 40 C.F.R. § 264.18(c).
[173] 40 C.F.R. § 264.91 and § 264.95.
[174] 40 C.F.R. § 264.91(a)(2).
[175] 40 C.F.R. § 264.101(a).
[176] 40 C.F.R. § 264.101(b).
[177] 40 C.F.R. § 264.101(c).
[178] 40 C.F.R. § 264.111.
[179] 40 C.F.R. § 264.112(b).
[180] 40 C.F.R. § 264.118.
[181] 40 C.F.R. § 264.147(a).
[182] 40 C.F.R. § 264.143.
[183] *Id*.
[184] *See generally* 42 U.S.C. § 6991 *et seq*. and 40 C.F.R. pt. 280.
[185] *Id*.
[186] 42 U.S.C. § 6991(1).
[187] 42 U.S.C. § 6991(1) and 40 C.F.R. § 280.10(b).

transportation agency has any UST, it should examine RCRA and its implementing regulations to determine whether the tank is subject to RCRA's requirements. The following discussion assumes the UST in question is a regulated tank.

b. Tank Registration and Notification Requirements

All owners of USTs must register their tanks with the regulating state agencies.[188] Information concerning the age, size, type, location, and uses of the tank(s) must be provided to the agency.[189] Information about new tanks must be provided within 30 days of the tank's existence.[190] Similarly, when a tank is removed from operation, the owner must provide the agency with information about the tank as of the date of removal.[191]

c. Performance Standards

RCRA's implementing regulations contain technical construction and operating standards for new and existing USTs. All USTs must adhere to "general operating requirements."[192] However, new USTs must be properly constructed, installed, protected from corrosion, used properly, and designed and constructed with proper underground piping.[193] Existing USTs must be upgraded to comply with the standards applicable to new USTs in accordance with a timetable established by the agency.[194]

d. Release Detection

Owners of USTs must implement certain techniques designed to detect that a regulated substance is leaking or has discharged from a UST. The RCRA regulations permit a variety of approaches for detection, which include inventory controls, manual tank gauging, automatic tank gauging, tank rightness testing, vapor monitoring, ground water monitoring, and interstitial monitoring (i.e., monitoring both the UST and a secondary barrier).[195]

e. Release Reporting, Investigation, and Response

Owners and operators of USTs must report suspected releases, spills, and overflows, as well as confirmed releases, to the appropriate authorized agency.[196] All UST owners and operators must investigate and confirm suspected releases within 7 days or another reasonable time imposed by the implementing agency.[197] However, these reporting time periods may be superseded by notification requirements under other regulatory programs.[198]

Once a release is confirmed, owners and operators must comply with certain corrective action requirements. These actions include reporting the release to the implementing agency; taking immediate action to prevent any further release of the regulated substance into the environment; and identifying and mitigating any fire, explosion, and vapor hazards that may be associated with the release.[199]

f. Closure and Change-in-Service Requirements

Occasionally, owners and operators of USTs will temporarily discontinue the use of a UST. However, simply discontinuing the use of a UST does not relieve an owner or operator from complying with certain RCRA regulations. Owners and operators must still comply with the requirements governing the operation and maintenance of corrosive protection and release detection systems, as well as requirements for release reporting, investigation, confirmation, and corrective action if a release is suspected or confirmed during the period of temporary closure.[200] Additional requirements are imposed on owners and operators where a UST undergoes a "change-in-service" (i.e., it is used to store a nonregulated substance) or is permanently closed.[201]

g. Financial Responsibility Requirements

Owners and operators of USTs must demonstrate financial responsibility for taking corrective action and for compensating third parties for bodily injury and property damage caused by releases from USTs.[202] There are a number of mechanisms that an owner or operator may employ to demonstrate financial responsibility.[203] These include insurance coverage, surety bond, a letter of credit, state fund or other state assurance, trust fund, standby trust fund, and self-assurance (upon compliance with financial test criteria).[204]

7. Enforcement for Violations of RCRA

RCRA provides both the EPA and private citizens with a range of legal mechanisms for enforcing hazardous waste requirements.

a. EPA Enforcement

Prior to undertaking enforcement, the EPA has specific information-gathering authority that permits it to gain access, copy records, and make formal demands

[188] 42 U.S.C. § 6991a(a)(1).
[189] *Id*.
[190] 42 U.S.C. § 6991a(a)(3).
[191] 42 U.S.C. § 6991(a)(2)(B).
[192] 40 C.F.R. §§ 280.31–.34.
[193] 40 C.F.R. § 280.20.
[194] 40 C.F.R. § 280.21.
[195] 40 C.F.R. § 280.43.
[196] 40 C.F.R. § 280.53.
[197] 40 C.F.R. § 280.52.
[198] *See, e.g.,* notice requirement of 72 hours for release or threat of release from a UST under Massachusetts Contingency Plan, 310 C.M.R. 40.0313(2); 40.0314.
[199] 40 C.F.R. § 280.61.
[200] 40 C.F.R. § 280.70(a).
[201] 40 C.F.R. §§ 280.71–.72.
[202] S*ee generally* 40 C.F.R. pt. 280, subpt. H.
[203] 40 C.F.R. §§ 280.94–.104.
[204] *Id*.

for information from a regulated facility.[205] Once the EPA has sufficient information indicating that a regulated entity is in violation of RCRA, the EPA may either issue an order that assesses a civil penalty of not more than $27,500 per day, issue an order requiring compliance within a specified time, or commence a civil action seeking civil penalties and/or injunctive relief.[206]

In addition to these civil enforcement actions, the EPA and the U.S. Department of Justice may criminally prosecute any "person" who "knowingly" violates certain RCRA provisions.[207] Upon conviction, the violator may be subject to a fine of $250,000, imprisonment for not more than 15 years, or both.[208]

b. Citizen Suits

RCRA authorizes "any person" to commence a civil action against any other person alleged to be in violation of a RCRA regulation or standard.[209] Written notice of the lawsuit must be provided to the alleged violator 60 days prior to commencement of the action.[210] However, citizen suits are not permitted where the EPA or state agency is prosecuting a civil or criminal action with respect to the alleged violation.[211] Citizen suits are also not permitted for wholly past violations of RCRA.[212]

A transportation agency may not only be the subject of citizen suits under RCRA, but may also institute an action against a violator of RCRA. Where a transportation agency discovers that contamination has migrated from an abutting property to a construction site or one of its facilities, the transportation agency may consider filing a RCRA citizens suit, in addition to pursuing any remedies under CERCLA and its state law analogues.

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[205] 42 U.S.C. § 6927.
[206] 42 U.S.C. § 6928(a)(1).
[207] 42 U.S.C. § 6928(d).
[208] 42 U.S.C. § 6928(e), (f).
[209] 42 U.S.C. § 6972(a).
[210] 42 U.S.C. § 6972(b)(1)(A).
[211] 42 U.S.C. § 6972(b)(1)(B).
[212] Coalition for Health Concern v. LWD, Inc., 60 F.3d 1188 (6th Cir. 1995).

SECTION 6

LITIGATION ISSUES

Litigation against a transportation agency is an unwanted and costly process through which an opponent's concerns about a particular highway or other transportation project are raised and addressed. In addition to those suits where the goal is to stop a project altogether, litigation is often threatened or filed by interest groups in order to achieve strategic advantage or leverage to influence the specifics of project design or mitigation measures, even where the project itself is viewed by these parties as a desirable improvement. Other times an interest group may litigate against a particular transportation project in an effort to "make law" that will further the organization's policy goals. Plaintiffs in such actions may include, among others, affected abutters, local community organizations, commercial interests, municipalities, local environmental and other interest groups, and national organizations or their local chapters.

Given the wide range of environmental laws and regulations to which a highway project is subject and the subjective nature of many of the review and approval processes, there may be any number of potential avenues of attack for a motivated and creative plaintiff. If not successful in warding off or ultimately thwarting the opponent's claims, the agency may find itself facing delays, changes or, in extreme cases, cancellation of the proposed transportation improvements. In addition, litigation and even the threat of litigation will cause a transportation agency to expend substantial additional funds on further analysis of an issue, and the attorney's and expert witness fees required to defend a project from attack.

This section discusses the types of court relief available to an opponent to a transportation project and the extent of aggrievement an opponent must establish to raise his concerns in court. In addition, this section discusses trial strategy and certain techniques a transportation agency may employ to successfully defend this type of litigation. Finally, this section examines the burgeoning field of mediation as an alternative to litigation. Both the mediation process itself and mediation's relative advantages to litigation are discussed.

A. PRELIMINARY OBSERVATIONS*

Three critical issues often determine whether an opponent will prevail in a lawsuit intended to alter or terminate a particular transportation project. First, if an opponent obtains a temporary injunction to halt a project while the litigation is pending, the opponent gains substantial leverage. The opponent may force a transportation agency to agree to certain modifications of the project with the promise that the injunction will be lifted once agreement is reached concerning the modifications. Given external pressures of politics, funding availability, SIP compliance schedules, and economic development goals, transportation projects are often seen as highly time-critical, and the opportunity to forestall or curtail litigation delays can prompt significant concessions on the part of the implementing agency. Second, the standard applied by a court for review of a transportation agency decision will affect an opponent's likelihood of success. Third, the administrative record existing before the agency will generally be the factual basis for judicial review of permitting and approval decisions. Because that record is in place by the time a complaint is filed, the transportation agency's best strategic opportunity to successfully defend litigation comes during the environmental study and permitting processes themselves.

1. Preliminary Injunction

a. Standard for Issuance

In suits brought by an opponent or citizens group against a transportation agency, the remedy invariably sought is injunctive relief. Although some statutes provide for financial penalties for noncompliance, the goal of an opponent is to seek both an immediate injunction restraining the project from proceeding while the lawsuit is pending, and the ultimate threat of permanent injunction to curtail the project altogether unless and until the alleged deficiencies are addressed. The opponent may allege that the transportation agency is violating a number of federal and state statutory requirements, including but not limited to NEPA,[1] the Department of Transportation Act,[2] TEA-21,[3] the Toxic Substances Control Act,[4] CWA,[5] CAA,[6] ESA,[7] RCRA,[8] and CERCLA.[9]

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* This section updates, as appropriate, and relies in part upon information and analysis in Hugh J. Yarrington, *Environmental Litigation: Rights & Remedies*, in SELECTED STUDIES IN HIGHWAY LAW, ch. VII; NORVAL C. FAIRMAN & ELIAS D. BARDIS, *Trial Strategy & Techniques in Environmental Litigation*, in SELECTED STUDIES IN HIGHWAY LAW, ch. VII; DANIEL MANDELKER, NEPA LAW AND LITIGATION (2d ed. 1992) (with annual supplements).

[1] 42 U.S.C. § 4321 *et seq*. Pub. L. No. 91-190 (Jan. 1, 1970), 83 Stat. 852.

[2] 49 U.S.C. § 303, Pub. L. No. 89-670 (Oct. 16, 1966), 80 Stat. 934, as amended.

[3] Pub. L. No. 105-178 (June 9, 1998), 112 Stat. 107.

[4] 15 U.S.C. § 2601 *et seq*., Pub. L. No. 94-469 (Oct. 11, 1976), 90 Stat. 2003.

[5] 33 U.S.C. § 1251 *et seq.,* Pub. L. No. 95-217 (Dec. 27 1977), as amended.

[6] 42 U.S.C. § 7401 *et seq.,* Pub. L. No. 89-272 (Oct. 20, 1965), as amended, *see* 42 U.S.C.A. 7401 Note.

[7] 7 U.S.C. § 136; 16 U.S.C. 460 *et seq*., Pub. L. No. 93-205 (Dec. 28, 1973), 87 Stat. 884,as amended.

[8] 42 U.S.C. § 6901 *et seq.,* Pub. L. No. 94-580 (Oct. 21, 1976), 90 Stat. 2795.

[9] 42 U.S.C. § 9601 *et seq.,* Pub. L. No. 96-510 (Dec. 11, 1980), 94 Stat. 2767, as amended.

Some of these statutes, such as the NEPA, do not provide for injunctive relief or any other remedies.[10] Rather, opponents of a highway project who assert that a transportation agency failed to comply with the requirements of NEPA, or other federal and state law requirements, may obtain injunctive relief based on a multifactor standard that is generally applicable to all preliminary injunctions sought in federal court.[11] The multifactor standard requires a court to consider the plaintiff's probability of success on the merits, a balancing of the harm to the plaintiff if an injunction is not granted against the harm to the defendant if an injunction is granted, and the public interest affected.[12] In applying the multifactor standard, the court has substantial discretion.[13]

b. Recent Judicial Decisions Applying the Standard for Issuance of an Injunction

It is not enough for a plaintiff to satisfy just one element of the multifactor standard; plaintiffs must satisfy all elements of the standard for an injunction to be issued. In *Provo River Coalition v. Pena*,[14] a Utah district court denied plaintiffs' request for a temporary restraining order and for a preliminary injunction.[15] The plaintiffs asserted that the proposed widening of US-189 in Provo Canyon would cause irreparable injury to the vegetation and wildlife of Provo Creek.[16] The complaint asserted violation of NEPA, the CAA, and ISTEA.[17] The court applied the multifactor standard and found that in view of the ongoing construction, plaintiffs would suffer irreparable injury prior to final resolution of the case.[18] However, the court denied the plaintiffs' motion for preliminary injunction and held that the plaintiffs had failed to meet their burden of showing a likelihood of success on the merits.[19]

However, in *Fund for Animals v. Clark*,[20] the plaintiffs were able to satisfy all elements of the multifactor standard. Plaintiffs alleged that the FWS failed to perform an environmental assessment under NEPA prior to deciding to conduct an organized hunt of a bison herd in the National Elk Refuge located in the northwestern part of Wyoming. The court held that plaintiffs would likely succeed on the merits and that the harm of hunting the bison outweighed the harm of an outbreak of brucellosis that could result from not hunting the bison.[21] The court also held that the public interest would be served by having the defendants' address the public's expressed environmental concerns, as contemplated by NEPA.[22]

Typically, opponents will not just allege violation of NEPA, but will allege that a transportation agency has violated a number of federal or state statutes. Where a highway project involves the construction of undeveloped wetlands or woodlands that contain undisturbed animal habitats, opponents may invoke the ESA. In the notorious case of *Tennessee Valley Auth. v. Hill* (*TVA*),[23] the Tennessee Valley Authority had spent $78 million constructing the Tellico Dam, which was eighty percent finished. The plaintiffs alleged that the snail darter, a species of small fish that lived in the river and had recently been placed on the Endangered Species List, would be rendered extinct by the completion of the dam. Because the Supreme Court found Congress to have valued the survival of the species as "incalculable," it upheld the injunction of the completion of the dam despite the huge economic costs and the loss of electricity and irrigation to thousands of citizens.

In *Hamilton v. City of Austin*,[24] the plaintiffs relied upon *TVA* and asserted that the Barton Springs Salamander (the Salamander) was an endangered species and was threatened by the city's cleaning of the Barton Springs Pool.[25] Plaintiffs sought a preliminary

[10] *See* 42 U.S.C. 4371 *et seq*. See Section 3 for a discussion of NEPA. However, violation by a transportation agency of any of the substantive or procedural requirements of the federal environmental statutes can result in injunctions barring continued construction pending compliance with the statutory requirements at issue.

[11] Rule 65 of the Federal Rules of Civil Procedure allows a court to enter preliminary injunctive relief, including restraining orders, prior to adjudication on the merits of an action.

[12] *See, e.g.,* DSC Communications Corp. v. DGI Tecs., Inc., 81 F.3d 597, 600 (5th Cir. 1996); Potawatomi Indian Tribe v. Enterprise Management Consultants, Inc., 883 F.2d 886, 888–89 (10th Cir. 1989); Lundgrin v. Claytor, 619 F.2d 61, 63 (10th Cir. 1980); Washington Metro. Area Transit Comm'n v. Holiday Tours, 182 U.S. App. D.C. 220, 559 F.2d 841, 842–44 (D.C. Cir. 1977).

[13] *Id*.

[14] 925 F. Supp. 1518 (D. Utah 1996).

[15] *Id*. at 1529.

[16] *Id*. at 1524.

[17] *Id*. at 1519.

[18] *Id*. at 1525.

[19] *Id*. at 1529. Some other decisions where the trial court has refused to issue a preliminary injunction under NEPA are: Chemical Weapons Working Group v. Department of the Army, 963 F. Supp. 1083 (D. Utah 1997); Greater Yellowstone Coalition v. Babbit, 952 F. Supp. 1435 (D. Mont. 1996); Alan Hamilton v. City of Austin, 8 F. Supp. 2d 886 (W.D. Texas 1998); Goshen Road Envtl. Action Team v. United States, 891 F. Supp. 1126 (E.D.N.C. 1995); Desert Citizens Against Pollution v. Bison, 954 F. Supp. 1430 (S.D. Cal. 1997).

[20] 27 F. Supp. 2d 8 (D.D.C. 1998).

[21] *Id*. at 14–15.

[22] *Id*. at 15.

[23] 437 U.S. 153 (1978).

[24] 8 F. Supp. 2d 886 (W.D. Texas 1998).

[25] *Id*. at 889. The Salamander lives only in certain springs in Barton Creek. Barton Springs Pool is located in Zilker Park, the premier public park owned and operated by the City of Austin. Barton Springs Pool is not an artificially bound ordinary pool. Rather it is a natural unique swimming hole

and permanent injunction to enjoin the pool cleaning and experimental activities in the Barton Springs Pool.[26] The court distinguished *TVA* because the pool cleaning would not result in either the eradication of the Salamander or the destruction of its habitat.[27] In refusing to issue an injunction the Court did not find a substantial likelihood that the plaintiffs would succeed on the merits, and found no evidence of irreparable harm.[28]

c. Arguments by Transportation Agencies to Prevent Issuance of Injunctions

In addition to defending on the merits of an alleged environmental law violation, a transportation agency may fend off or reduce the scope of an injunction on the following grounds:

i. Laches and Statute of Limitations.—Laches is a legal doctrine available to transportation agencies to defend against the issuance of a preliminary injunction.[29] Laches is defined as neglect, for an unreasonable and unexplained length of time, under circumstances permitting diligence, to do what in law should have been done.[30] Where an opponent contests agency decisions by asserting violations of NEPA, the opponent would have had ample opportunity to comment upon the highway project during the administrative process. After the NEPA process is complete and the project has commenced, or is about to commence, a transportation agency may assert that opponents have sat on their rights so long that they have waived their right to raise NEPA issues.

One defense, similar to laches, that a transportation agency may assert in certain circumstances is statute of limitations. Certain statutes only provide a limited time period within which an action must be brought.[31] These limitation periods vary, and for each statute that opponents assert has been violated, a transportation agency should consider whether there is a limitation period and, if so, whether the limitation period has passed.

ii. Balancing the Equities.—In addition to laches, a transportation agency may assert that the costs of construction already incurred outweigh the benefits to be gained by environmental compliance.[32] Because a court must balance the equities in determining whether to issue an injunction, this type of defense may substantially influence a court. In *Environmental Law Fund, Inc. v. Volpe*, the District Court for the Northern District of California determined that the balance favored the continued construction of the highway even though a technical violation of NEPA existed.[33] The factors analyzed by the court were (1) the participation of the local community in the planning of the project, (2) the extent to which the state had already attempted to take environmental factors into account, (3) the likely harm to the environment if the project was constructed as planned, and (4) the cost to the state of halting construction while it complied with the technical NEPA violation.[34] The court denied injunctive relief because the local community had been very active in planning the project, the state had attempted to analyze all environmental factors, the possible harm to the environment was slight, and significant economic loss would result if the project were halted.[35] In support of likely economic loss, the state proved that it would lose $10.8 million in federal highway funds and would be liable to various contractors if the project were halted.[36]

On the issue of balancing the equities after construction has commenced, the district court in *Brooks v. Volpe* stated:

> Imposition of the stringent requirements of NEPA, long after a project has begun, may sometimes appear to be too harsh. Yet the statute was intended not only to serve the convenience of the public today, but to provide future generations with protection of their interests as well. If NEPA had been enacted ten years ago, Seattle would surely not now be scarred with I-5, the hideous concrete ditch which runs through the heart of the city.[37]

In light of this analysis, the court in *Brooks* decided to grant the opponent's request for an injunction despite the fact that a large amount of money had been spent on the project.[38] A transportation agency that is defending an action for preliminary injunction to halt a project that is already underway should be prepared to present the best possible evidence concerning the substantial costs that will be incurred if the injunction is granted and the project halted. Evidence concerning the public interest in safety and any environmental benefits from the project should also be advanced.[39]

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created in the late 1920s by the construction of a small dam across Barton Creek. *Id*. at 889–90.

[26] *Id*.

[27] *Id*. at 896. Only a few Salamanders were left stranded in any one pool cleaning and the City employed the technique of assigning three or more individuals to monitor, search, and save stranded Salamanders. *Id*.

[28] *Id*. at 897.

[29] Hugh J. Yarrington, *Environmental Litigation: Rights & Remedies*, *in* SELECTED STUDIES IN HIGHWAY LAW ("Selected Studies"), 1702.

[30] BLACK'S LAW DICTIONARY, 875 (6th ed.).

[31] *See, e.g.,* 42 U.S.C. § 9613(g)(2) (provision of CERCLA setting forth statute of limitation period of 3 years to recover response costs for a removal action and 6 years to recover response costs for a remedial action).

[32] YARRINGTON, *supra* note 29, at 1702.

[33] 340 F. Supp. 1328 (N.D. Cal. 1972).

[34] *Id*. at 1334–1335.

[35] *Id*. at 1336–1337.

[36] *Id*.

[37] 350 F. Supp. 269, 283 (W. D. Wash. 1972).

[38] *Id*.

[39] Provo River Coalition v. Pena, 925 F. Supp. 1518 (D. Utah 1996) (Motion for preliminary injunction denied, even though balance of equities slightly favors public interest in

iii. Remedy.—A transportation agency may also defend against a project opponent's petition for injunctive relief by arguing that only a portion, if any, of a highway project should be halted. A court acting in equity has considerable discretion to fashion relief and may limit an injunction to only a portion of a highway project.[40]

d. Procedures for Obtaining Injunction

To obtain a preliminary injunction, petitioner's counsel must submit a complete and thorough affidavit specifying the facts supporting the petitioner's position.[41] Preliminary injunctions are frequently denied where the affidavit does not demonstrate a clear right to the relief requested.[42] Trial courts have the authority to render an injunction on the written evidence alone (where there are no issues of fact), or to issue a temporary restraining order until an evidentiary hearing is held.[43] Generally, where the written evidence contains a factual dispute, most courts will hold an evidentiary hearing if either party requests one.[44] Where review is on the administrative record, as in a challenge brought under NEPA, the agency should consider filing a motion to exclude oral testimony and affidavits from consideration in determining the likelihood of success on the merits.

At the preliminary injunction hearing, the petitioner will normally proceed first because it has the burden of establishing the necessity of the relief requested. Thereafter, the transportation agency has an opportunity to present its evidence.

If a temporary restraining order is issued by the court (or is consented to by the agency) prior to the preliminary injunction hearing, a transportation agency may want to consider moving for a consolidation of the preliminary injunction hearing and the trial on the merits.[45] If the transportation agency is confident that it will prevail at a trial on the merits, moving for consolidation is a beneficial trial strategy.[46] Although consolidation may require an agency to voluntarily halt a project for a certain period of time and thereby incur certain costs, the advantage of obtaining an expedient resolution of a project opponent's claims is so beneficial that it often outweighs the costs incurred by temporarily halting a project. Generally, in furtherance of judicial economy, courts will grant motions to consolidate. Depending on the number of cases before the court, the action may be set for trial within a few months. Courts are aware of the millions of dollars involved in transportation projects and the likely financial consequences of any undue delay in resolving the litigation.

If the transportation agency does not have a strong defense and expects the plaintiff to prevail, the agency will not want to consolidate the preliminary injunction hearing and the trial on the merits. The additional time before trial can permit an agency time to correct any deficiencies in the review and approval processes raised by the plaintiff.

If the preliminary injunction is granted and in place until a full trial, the agency may attempt to correct the alleged defects as soon as possible. After the defects are corrected, the agency may move to vacate the preliminary injunction.

2. Standard of Review

The standard of review employed by courts considering whether a transportation agency complied with the necessary legal requirements is critical to the effectiveness of lawsuits by opponents. A transportation agency should analyze what standard of review is applicable to an agency decision and argue where possible that a less rigorous standard is applicable than that claimed by the opponent.

a. Standard of Review Under NEPA

NEPA does not itself state that an opponent may obtain judicial review of an agency's efforts to comply with NEPA. However, in a historic decision,[47] the D.C. Circuit emphatically asserted judicial authority to enforce NEPA:

> We conclude, then, that Section 102 of NEPA mandates a particular sort of care and informed decision-making process and creates judicially enforceable duties…[I]f the decision was reached procedurally without individual consideration and balancing of environmental factors—conducted fully and in good faith—it is the responsibility of the courts to reverse.[48]

Review of the substance of the agency decision is not itself available. Rather, it is compliance with NEPA's procedural provisions that is subject to judicial review.[49] The Supreme Court confirmed this procedural role in

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enforcing NEPA over the costs already expended and the safety, efficiency, and environmental benefits of the project).

[40] *See* Cook v. Birmingham News, 618 F.2d 1149, 1152 (5th Cir. 1980); Arkansas Community Organization for Reform Now v. Brinegar, 398 F. Supp. 685 (E. D. Ark. 1975), *aff'd*, 531 F.2d 864 (8th Cir. 1975).

[41] Norval C. Fairman & Elias D. Bardis, *Trial Strategy & Techniques in Environmental Litigation*, *in* SELECTED STUDIES IN HIGHWAY LAW 1759.

[42] *See, e.g.,* Citizens Ass'n v. Washington, 370 F. Supp. 1101 (D.D.C. 1974).

[43] FAIRMAN & BARDIS, *supra* note 41, at 1760.

[44] *Id*.

[45] *Id*. at 1761.

[46] *Id*.

[47] Calvert Cliffs Coordinating Comm., Inc. v. United States Atomic Energy Comm'n, 449 F.2d 1109 (D.C. Cir. 1971).

[48] *Id*. at 1115. The Supreme Court subsequently ratified, at least by implication, the availability of judicial review of NEPA compliance. *See, e.g.,* Aberdeen & Rockfish R.R. v. Students Challenging Regulatory Agency Procedures (SCRAP), 422 U.S. 289, 319 (1975) ("NEPA does create a discrete procedural obligation…[N]otions of finality and exhaustion do not stand in the way of judicial review of the adequacy of such consideration…").

[49] *Id*. ("The reviewing courts probably cannot reverse a substantive decision on its merits…").

Strycker's Bay Neighborhood Council v. Karlen.[50] It stated that the court should not "interject itself within the area of discretion of the executive as to the choice of the action to be taken."[51]

The two standards used most often in NEPA challenges are the highly deferential "arbitrary and capricious standard," derived from judicial review provisions of the Administrative Procedure Act,[52] and the somewhat less deferential "reasonableness standard."[53] Although there has never been a comprehensive and coherent delineation between these two standards, litigants and courts generally assert that the reasonableness standard provides for more indepth review of agency action than the arbitrary and capricious standard.[54]

The arbitrary and capricious standard requires the reviewing court to "hold unlawful and set aside agency action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[55] In *Citizens to Preserve Overton Park v. Volpe*,[56] the U.S. Supreme Court defined this standard:

> To make this finding the court must consider whether the decision was based on a consideration of the relevant facts and whether there has been a clear error of judgment [citations omitted]. Although this inquiry into the facts is to be searching and careful, the ultimate standard of review is a narrow one. The court is not empowered to substitute its judgment for that of the agency.[57]

Before applying the arbitrary and capricious standard, however, the Court instructed that the reviewing court must engage in a "substantial inquiry" that requires an initial determination of whether the agency acted within the scope of its authority and discretion, and whether the facts of the decision can reasonably be said to fall within that scope. Once the court determines that the agency acted within the scope of its statutory authority, it must then evaluate the decision or action under the arbitrary and capricious standard.[58] Although *Overton Park* involved an opponent's claim under Section 4(f) of the Department of Transportation Act and not a NEPA case, the Court's statement is guidance for application of the arbitrary and capricious review in all cases.[59]

In 1989, in *Marsh v. Oregon Natural Resources Council*,[60] the Supreme Court held that the standard of review for an agency decision not to write a supplemental impact statement is the arbitrary and capricious standard.[61] *Marsh* concerned a challenge to the U.S. Army Corps of Engineers' decision not to supplement an EIS for the Elk Creek Dam.[62] Shortly after construction of the dam commenced, the Oregon Natural Resources Council and others sought a preliminary injunction to halt construction, arguing, among other things, that the Corps violated NEPA when it failed to supplement its EIS despite newly available information concerning downstream fishing impacts and turbidity.[63] The district court concluded that the agency's decision was "reasonable."[64] The Ninth Circuit reversed and held that the agency's decision was unreasonable because the new information did warrant a supplemental EIS.[65] A unanimous Supreme Court reversed the Ninth Circuit and held that the arbitrary and capricious standard was the correct one for reviewing the agency decision.[66] In reaching this holding, the Supreme Court seemed to end any further use of the reasonableness standard, which several circuits had employed, in review of similar agency decisions.

In circuits that were already using the arbitrary and capricious standard,[67] the *Marsh* decision had little effect. However, the circuits that had previously used the reasonableness standard to review an agency decision not to supplement or prepare an EIS have since replaced it with the arbitrary and capricious standard.[68] Although *Marsh* involved the decision to

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[50] 444 U.S. 223 (1980).

[51] *Id*. at 227, citing Kleppe v. Sierra Club, 427 U.S. 390.

[52] 5 U.S.C. § 706(2)(A).

[53] *See, e.g.,* South Trenton Residents Against 29 v. FHA, 176 F.3d 658, 663 (3rd Cir. 1999); Wyoming Outdoor Coordinating Council v. Butz, 484 F.2d 1244 (10th Cir. 1973); Township of Springfield v. Lewis, 702 F.2d 426 (3rd Cir. 1983).

[54] *See, e.g.,* Sho-Shone-Painte Tribe v. United States, 889 F. Supp. 1297, 1304 (D. Idaho 1994) (noting a perception among litigants that the arbitrary and capricious standard is more deferential to an agency decision); Louisiana v. Lee, 758 F.2d 1081, 1084 (5th Cir. 1985) (describing reasonableness standard as "more rigorous" than the arbitrary and capricious standard).

[55] 5 U.S.C. § 706(2)(A).

[56] 401 U.S. 402, 91 S.C. 814 (1971).

[57] *Id*. at 416.

[58] *Id*.

[59] 49 U.S.C. § 303(c). *See also* Communities, Inc. v. Busey, 956 F.2d 619, 623 (6th Cir. 1992); Committee to Preserve Boomer Lake Park v. Department of Transp., 4 F.3d 1543, 1549 (10th Cir. 1993); Sierra Club Illinois Chapter v. United States D.O.T, 962 F. Supp. 1037, 1041 (N.D. Ill., 1997).

[60] 490 U.S. 360 (1989).

[61] *Id*. at 376.

[62] *Id*. at 364.

[63] *Id*. at 368.

[64] Oregon Natural Resources Council v. Marsh, 628 F. Supp. 1557, 1568 (D. Or. 1986), *aff'd in part, rev'd in part*, 832 F.2d 1489 (9th Cir. 1987), *rev'd*, 490 U.S. 360 (1989).

[65] Oregon Natural Resources Council v. Marsh, 832 F.2d 1489, 1494–96 (9th Cir. 1987), *rev'd*, 490 U.S. 360 (1989).

[66] Marsh, 490 U.S. at 375. The Court cited Section 706(2) of the Administrative Procedure Act as the source for this standard.

[67] *See, e.g.,* Hanly v. Kleindienst, 471 F.2d 823, 828–30 (2d Cir. 1972); Grazing Fields Farm v. Goldschmidt, 626 F.2d 1068, 1072 (1st Cir. 1980); Providence Rd. Community Ass'n v. EPA, 683 F.2d 80, 82 (4th Cir. 1982); Nucleus of Chicago Homeowners Ass'n v. Lynn, 524 F.2d 225, 229 (7th Cir. 1975).

[68] *See* North Buckhead Civic Ass'n v. Skinnon, 903 F.2d 1533 (11th Cir. 1990); Goos v. Interstate Commerce Comm'n,

supplement, the courts generally have not maintained any distinction between the agency's decision to initially prepare, and the decision to supplement, an EIS. Failure to distinguish between these two agency decisions is not surprising, given the dicta in *Marsh* that the issues are, in essence, the same.[69]

The *Marsh* decision does not mean that the arbitrary and capricious standard is applied to all questions that arise under NEPA. At the opposite end from the arbitrary and capricious standard is the de novo standard, which courts apply to questions of law.[70] Under the de novo review standard, the court decides legal questions, although it may give considerable weight to the CEQ regulations interpreting NEPA's statutory terms.

One issue left unresolved by *Marsh* is whether the reasonableness standard or the arbitrary and capricious standard should be applied when the issue raised is "predominantly legal" and not a classical fact dispute. In *Alaska Wilderness Recreation & Tourism Ass'n v. Morrison*,[71] the Ninth Circuit revived the reasonableness standard and took advantage of dicta in *Marsh* that predominantly legal questions might warrant a different standard of review.[72] In that case, opponents sought to enjoin the Forest Service from offering contracts for certain timber sales on the Tongass National Forest.[73] At issue was whether the Forest Service's cancellation of a pre-existing 50-year timber sales contract, which was a central premise of earlier EIS's, was a significant circumstance requiring a supplemental EIS.[74] The Ninth Circuit held that whether the contract cancellation was a significant circumstance requiring a supplemental EIS was predominantly legal.[75] The court then employed the reasonableness standard to find that the contract had limited the range of alternatives analyzed under prior EIS's, so its cancellation was significant, and the Forest Service was unreasonable in refusing to supplement the EIS's.[76]

In light of *Alaska Wilderness*, a transportation agency needs to consider whether the issues raised by opponents involve a classical fact dispute or a predominantly legal issue.[77] If opponents successfully frame an issue as predominantly legal, the decisions made by a transportation agency may be subject to less deference under the reasonableness standard.

3. Importance of Administrative Record

A thorough and persuasive administrative record is critical to successfully defending against challenges to a transportation project. The administrative record is critical because a reviewing court generally must limit its review to the administrative record.[78] Any agency decisions made in order to comply with NEPA or other federal and state statutes should be well documented and, where necessary, supported by expert opinions. Even before opposition arises, the agency needs to consider whether existing data and facts support its decision. If an agency is thorough in its decisionmaking, it will be very difficult for opponents to prevail. A presumption of validity attaches to agency decisions made on the record.[79]

B. WHO MAY BRING SUIT*

Generally, opponents of a highway project must overcome the legal requirement of standing to challenge a transportation agency's decision. However, under certain federal and state statutes, opponents and interested citizens are authorized to bring actions without having to establish the traditional standing requirements. This section analyzes the traditional standing requirements as applied to opponents of an agency decision, the federal statutes that plainly authorize citizen suits, and a sampling of state statutes that authorize citizen suits.

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911 F.2d 1283 (8th Cir. 1990); Sabine River Auth. v. United States Dep't of the Interior, 951 F.2d 669 (5th Cir. 1992); Sierra Club v. Lujan, 949 F.2d 362 (10th Cir. 1991).

[69] Marsh, 490 U.S. at 374. The Court noted that "the decision whether to prepare a supplemental EIS is similar to the decision whether to prepare an EIS in the first instance." *Id*. at 374.

[70] First National Bank of Homestead v. Watson, 363 F. Supp. 466 (D.D.C. 1973).

[71] 67 F.3d 723 (9th Cir. 1995).

[72] *Id*. at 727.

[73] *Id*. at 726.

[74] *Id*.

[75] *Id*. at 727.

[76] *Id*. at 729–30.

[77] A useful discussion of mixed questions of law and fact in the NEPA context appears in DANIEL MANDELKER, NEPA LAW & LITIGATION 3.04[2] (2d ed. 1992) (with annual supplements).

[78] Florida Power & Light Co. v. Lorion, 470 U.S. 729 (1985). *See also* Sierra Club v. Marsh, 976 F.2d 763, 772 (1st Cir. 1992) (Administrative record may be supplemented by affidavits, depositions, or other proof of explanatory nature, but not by new rationalizations of the agency's decision).

[79] Ethyl Corp. v. EPA, 541 F.2d 1, 34 (D.C. Cir.) (en banc), *cert. denied*, 426 U.S. 941 (1976).

* This section updates, as appropriate, and is based in part upon information and analysis in Nelson Smith and David Graham, *Environmental Justice and Underlying Societal Problems*, 27 ENVTL. L. REP. 10568 (1997); Daniel Kevin, *'Environmental Racism' and Locally Undesirable Land Uses: A Critique of Environmental Justice Theories and Remedies*, 8 VILL. ENVTL. L.J. 121 (1997); Terry L. Schnell & Kathleen J. Davies, *The Increased Significance of Environmental Justice in Facility Siting, Permitting*, 29 Env't Rep. 528 (July 3, 1998), BNA; KENNETH A. MANASTER & DANIEL P. SELMI, STATE ENVIRONMENTAL LAW (1989—).

1. Standing to Challenge Administrative Agency Actions

To challenge a transportation agency's decision under NEPA, Section 4(f) of the Department of Transportation Act, or another environmental statute, an opponent must be able to establish "standing," or an appropriate individualized interest in the outcome of the case. An analysis of standing under federal law has two components. Article III of the U.S. Constitution has been interpreted as imposing a standing requirement that goes to the federal court's jurisdiction to hear a case or controversy. Alternatively, the Administrative Procedures Act and some environmental statutes impose different standing requirements.

a. Appropriate Standard

Standing under the Administrative Procedure Act exists only when a plaintiff can satisfactorily demonstrate that (a) the agency action complained of will result in an injury in fact and (b) the injury is to an interest "arguably within the zone of interests to be protected" by the statute in question.[80]

b. What Constitutes Injury in Fact?

In *Sierra Club v. Morton*, the U.S. Supreme Court held that environmental well-being, like economic well-being, may be the basis of an injury in fact sufficient to establish standing.[81] The Court reasoned that: "Aesthetic and environmental well-being, like economic well-being, are important ingredients of the quality of life in our society, and the fact that particular environmental interests are shared by the many rather than the few does not make them less deserving of legal protection through the judicial process."[82]

The case involved a decision by the Forest Service to approve a plan by Walt Disney Enterprises to build a $35 million resort in the Mineral King Valley.[83] Even though the court established that an environmental interest supports standing, the court held that the Sierra Club failed to show how its members would personally be affected in any of their activities by the project.[84]

In *United States v. Students Challenging Regulatory Agency Procedures (SCRAP I)*,[85] the U.S. Supreme Court further clarified several elements of the standing requirement.[86] In *SCRAP I*, a group of law students contested a rate increase on recycled goods proposed by the Interstate Commerce Commission.[87] The students argued that the rate increase would diminish the use of recycled goods, increase the amount of litter on a nationwide basis, and would cause an increase in the amount of litter in the forests and streams in the Washington, DC, area.[88] To establish their personal interest, the students alleged that they used the forests and streams in the Washington, DC, area for camping and hiking.[89] In granting the law students standing, the U.S. Supreme Court clarified that standing "is not to be deemed simply because many people suffer the same injury."[90] Moreover, the Court held that the test for standing is qualitative, not quantitative.[91] The magnitude of a plaintiff's injury in fact is not relevant for standing purposes, rather, it is only critical that an injury itself exists.

Subsequent to *SCRAP I*, the U.S. Supreme Court indicated that opponents must not only allege and prove individual injury in fact, but must satisfy a minimum standard of adequacy of that proof. In *Lujan v. National Wildlife Federation*,[92] the U.S. Supreme Court held that plaintiffs' assertion of standing was invalid for two reasons.[93] First, the affidavits submitted by plaintiffs attesting to their use of the affected lands were defective.[94] The affidavits only stated that plaintiffs used lands in the vicinity of the affected lands. The court required plaintiffs to actually use the affected lands themselves in order to be eligible for standing. Second, the affidavits, even if adequate, could only have been used to challenge how those particular lands were used, not the entire Bureau of Land Management Program.[95]

Prior to *Lujan*, the Supreme Court's decisions seemed to reflect an awareness that environmental opponents sought not only to redress injuries to themselves, but also to protect the public interest. *Lujan* indicates a less sympathetic judicial view toward environmental opponents.

2. Private Right of Action Under Other Federal Statutes

Certain federal environmental statutes provide "standing" for any citizen to file a lawsuit to allege violations of the particular statute in issue. These citizen suit provisions permit an individual to act as a private attorney general to insure that there is statutory compliance. This section outlines the citizen suit provisions under the CWA[96] and the CAA.[97] The citizen suit provisions of the RCRA are discussed in

[80] 5 U.S.C. § 710. *See* Ass'n of Data Processing Serv. Org., Inc. v. Camp, 397 U.S. 150 at 153, 25 L. Ed. No. 2d 184, 90 S. Ct. 827 (1970).

[81] 405 U.S. 727 (1972).

[82] *Id*. at 734.

[83] *Id*. at 729.

[84] *Id*. at 740.

[85] 412 U.S. 669 (1973).

[86] *Id*. at 685.

[87] *Id*. at 678.

[88] *Id*.

[89] *Id*.

[90] *Id*. at 687.

[91] *Id*.

[92] 497 U.S. 871, 887–88 (1990).

[93] *Id*. at 888.

[94] *Id*.

[95] *Id*. at 885–95

[96] 33 U.S.C. § 1365(a).

[97] 42 U.S.C. § 7604.

Section 6.C.7.b of this chapter.[98] In addition, this section also discusses a citizen's ability to bring environmental claims under 42 U.S.C. 1983.

a. Citizen Suits Under the CWA

Section 505 of the CWA plainly authorizes persons "having an interest which is or may be adversely affected"[99] to initiate litigation against either a discharger for violating any effluent standard or limitation under the Act, or against the EPA for failure to proceed expeditiously in enforcing the Act's provisions.[100]

Sixty days prior to initiating the litigation, a citizen is required to provide notice to the EPA of an intention to bring suit.[101] Failure to comply with this notice provision can result in dismissal of the lawsuit.[102] Because a citizen suit may not be brought for wholly past violations, the suit must allege either continuing or intermittent violations.[103] To avoid dismissal, a plaintiff needs to make a good-faith allegation of continuing or intermittent violation at the time the 60-day notice is given.[104]

Plaintiffs may seek injunctive relief and civil penalties assessed by the court and payable to the federal government.[105] In addition, plaintiffs making claims under the CWA citizens suit provisions may seek attorney's fees and witness fees.[106]

In settlements of citizen suits under the CWA, the EPA has a right to review settlement agreements and to file any objections to the agreement in court. [107] This statutory review provides the EPA with the opportunity to impose more stringent conditions than the plaintiffs had agreed to. The oversight authority of the EPA is an important factor to consider in negotiating the resolution of a CWA citizens suit and may warrant involving the agency directly in the negotiation process.

b. Citizen Suits Under the CAA

The CAA allows any person to bring enforcement action against any person who is alleged to be in violation of an "emissions standard or limitation," or an administrative order issued by the EPA.[108] In addition, a citizen may bring a suit against an EPA Administrator where he or she is alleged to have failed to perform a nondiscretionary duty under the Act.[109] The term "emissions standard or limitation" is precisely defined and refers to a number of provisions in the Act that establish standards governing state and local stationary sources of air pollution.[110] Data and reports from facility monitoring systems have been admitted as competent evidence of an ongoing violation sufficient to allow suit.[111]

Under the Act, citizens must provide notice of their intent to sue 60 days prior to initiating suit to the alleged violator, the EPA, and the state in which the alleged violation is occurring.[112] The notice provides the discharger with the opportunity to rectify the alleged violations prior to becoming a defendant in a lawsuit.[113] In addition, the notice period permits the EPA to prosecute the alleged violator by taking federal enforcement actions.[114]

Federal courts have varied in how they have interpreted this notice requirement. Some courts have held that the notice requirement is jurisdictional in nature and a suit must be dismissed where a plaintiff fails to provide notice.[115] Other courts have held that the requirement was not intended to hinder citizens suits and should be construed "flexibly and realistically."[116] A transportation agency named in a CAA citizens suit

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[98] *See also* § 4.C.3.d.iii discussing citizens suits under state hazardous waste cleanup laws.

[99] 33 U.S.C. § 1365(g).

[100] 33 U.S.C. § 1365(a).

[101] 33 U.S.C. § 1365(b)(1)(A), 40 C.F.R. § 135.

[102] *See, e.g.,* Trump Hotels & Casino Resorts, Inc. v. Mirage Resorts Inc., 963 F. Supp. 395, 402 (D.N.J. 1997), *aff'd* 140 F.3d 478 (3d Cir. 1998); Canada Comm. Improvement Soc'y v. City of Michigan City, Ind., 742 F. Supp. 1025, 1029 (N.D. Ind. 1990).

[103] Gwaltney v. Chesapeake Bay Found., 484 U.S. 49 (1987).

[104] *Id*. at 59–60.

[105] 33 U.S.C. § 1365(d).

[106] 33 U.S.C. § 1365(d).

[107] 33 U.S.C., § 1365(c)(3). The EPA used this provision to object to settlements that fail to provide for the payment of civil penalties to the United States. *See, e.g.,* Friends of the Earth v. Archer Daniels Midland Co., 31 ERC 1779 (N.D.N.Y. 1990) (rejecting such challenge); Sierra Club v. Electronic Controls Design, Inc., 31 ERC 1789 (9th Cir. 1990).

[108] 42 U.S.C. § 7604(a).

[109] *Id*.

[110] These provisions include standards established in state implementation plans (SIPs) and permits, Prevention of Serious Deterioration (PDS) standards, new source performance standards, requirements regarding hazardous air pollutants, nonattainment area requirements for new sources, and standards intended to protect the stratospheric ozone layer. 42 U.S.C. § 7604(f).

[111] Sierra Club v. Public Service Co. of Colorado, Inc., 894 F. Supp. 1455 (D. Colo. 1995).

[112] 42 U.S.C. § 7604(b). The notice requirement does not apply to citizen suits that allege violations of EPA administrative compliance orders or violations of standards applicable to sources of hazardous air pollutants. 42 U.S.C. § 7604(b).

[113] Hallstrom v. Tillamook County, 493 U.S. 20, 25 (1989); City of Highland Park v. Train, 519 F.2d 681, 690 (8th Cir. 1975) *cert. denied,* 424 U.S. 927 (1976).

[114] Friends of Earth v. Potomac Elec. Power Co., 546 F. Supp. 1357, 1361 (D.D.C. 1982).

[115] *See, e.g.,* Philadelphia Council of Neighborhood Orgs. v. Coleman, 437 F. Supp. 1341, 1370 (E.D. Pa. 1977); West Penn Power Co. v. Train, 620 F.2d 1040 (4th Cir. 1980).

[116] *See, e.g.,* Friends of Earth v. Carey, 535 F.2d 165, 175 (2d Cir. 1976); Natural Resources Defense Council v. Calloway, 524 F.2d 79, 84 n.4 (2d Cir. 1975).

should always consider whether plaintiffs have provided the requisite notice and how the courts in its jurisdiction have interpreted the notice provision.

A copy of the complaint in a citizen suit must be served on the United States Attorney General and the EPA Administrator.[117] Proper venue for a citizen suit is the judicial district in which the allegedly violating source is located.[118] Where the citizen, plaintiff, and alleged violator enter into a consent decree to resolve the dispute, the EPA and the Justice Department are allowed to review, provide comment, and intervene (if necessary) in the action.[119]

A citizen may seek to obtain injunctive relief and civil penalties if successful in the action.[120] In awarding preliminary or temporary injunctive relief, a court may require plaintiffs to file bonds, or equivalent security.[121]

The civil penalties are paid to a special account for the EPA to use for air compliance and enforcement issues.[122] In addition, a citizen making a claim under the CAA citizens suit provisions may be awarded reasonable attorney's fees, whenever the court determines that such an award is appropriate.[123]

c. Environmental Justice Claims

"Environmental justice" generally refers to the principle that low income and minority neighborhoods should not be subject to disproportionately high or adverse environmental health affects.[124] Environmental justice suits brought to date have more typically involved the siting and permitting of polluting facilities (such as a landfill) than highway projects.[125] However, there is no doubt that a creative opponent could formulate a cognizable environmental justice claim to contest the siting of a highway project in an urban neighborhood, for example.[126]

The most common basis for an environmental justice cause of action is Title VI of the Civil Rights Act of 1964. Section 601 of the Act prohibits discrimination on the basis of race, color, or national origin under any activity or program receiving federal funding.[127] Section 602 requires federal agencies to promulgate regulations implementing the Section 601 prohibition in their programs.[128] President Clinton issued an executive order in 1994 requiring that federal agencies make achieving environmental justice part of their mission and establishing an interagency working group chaired by the EPA Administrator.[129]

A key issue in environmental justice claims is that while traditional statutory civil rights claims must allege intentional discrimination, courts have held that liability may attach for discriminatory impact, regardless of intent.[130] In *Chester Residents Concerned for Quality Life v. Seif*, [131] residents of a predominately African American community alleged that by permitting waste facilities in their community, the Pennsylvania Department of Environmental Protection (DEP) violated both Section 601 of the Civil Rights Act and the EPA regulations promulgated in accordance with Section 602.[132] The district court held that plaintiffs had only alleged a discriminatory impact, and not a discriminatory intent, and dismissed plaintiffs' claim.[133] With respect to the EPA regulations, the district court held that they did not provide a private cause of action.[134] The Third Circuit reversed this aspect of the holding and found that a private right of action is implied in the EPA regulations.[135] The U.S. Supreme Court granted the state's petition for review, but then dismissed plaintiffs' claims as moot.[136] While the action was pending, the Pennsylvania DEP had revoked the permit for the proposed facility. More recently, in *Alexander v. Sandoval*, the U.S. Supreme Court held that there is no private right of action to enforce disparate impact regulations promulgated by DOT under Section 602.[137] There may, however, be a right to bring an action under 42 U.S.C. § 1983 to enforce Section 602 regulations.[138]

Because environmental justice may play an increasingly prominent role in facility siting, permitting, and enforcement, transportation agencies

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[117] 42 U.S.C. § 7604(c)(3).

[118] 42 U.S.C. § 7604(c)(1).

[119] 42 U.S.C. § 7604(c)(3).

[120] 42 U.S.C. § 7604(a). See the detailed discussion of § 4(f) in § 2E *infra*.

[121] 42 U.S.C. § 7604(d).

[122] 42 U.S.C. § 7604(g)(l).

[123] 42 U.S.C. § 7604(d).

[124] *See* Nelson Smith and David Graham, *Environmental Justice and Underlying Societal Problems*, 27 ENVTL. L. REP. 10568 (1997); Daniel Klein, *'Environmental Racism' and Locally Undesirable Land Uses: A Critique of Environmental Justice Theories and Remedies*, 8 VILL. ENVTL. L.J. 121 (1997).

[125] *See,* i.e., Rozar v. Mullts, 85 F.3d 556 (11th Cir. 1996).

[126] *See, e.g*., Jersey Heights Neighborhood Ass'n v. Glendening 174 F.3d 180 (4th Cir. 1999) (Environmental justice claims based on effects of highway construction on urban neighborhood barred on immunity and statute of limitation grounds).

[127] 42 U.S.C. § 2000d.

[128] 42 U.S.C. § 2000d-1.

[129] Exec. Order No. 12898, 59 Fed. Reg. 7629 (Feb. 16, 1994); 3 C.F.R. 859 (1994).

[130] Terry L. Schnell & Kathleen J. Davies, *The Increased Significance of Environmental Justice in Facility Siting, Permitting*, 29 ENV'T REP. 528, 530 (July 3, 1998).

[131] 944 F. Supp. 413 (E.D. Pa. 1996), *rev'd in part and remanded*, 132 F.3d 925 (3rd Cir. 1997).

[132] *Id*. at 415.

[133] *Id*. at 417–18.

[134] *Id*.

[135] 132 F.3d 925, 937.

[136] 524 U.S. 974 (1998).

[137] Alexander et al. v. Sandoval, 532 U.S. 275 (2001).

[138] South Camden Citizens in Action v. New Jersey Dep't of Envir. Prot., C.A. No. 01-702 (May 10, 2001) (2001 U.S. Dist. LEXIS 5988), 145 F. Supp. 2d 505.

need to evaluate and to take into account the population and community surrounding potential highway sites.

3. Right to Sue Under State Law or State Constitution

a. State Citizen Suit Statutes

In addition to federal statutes authorizing citizen suits, opponents of a highway or other transportation project may seek standing under the state statutes that authorize citizen suits. The model for these state laws is the Michigan Environmental Protection Act (MEPA), adopted in 1970.[139]

MEPA and its imitators create a broad cause of action that opponents may employ to halt or delay a highway project. Under MEPA, a wide variety of named entities, including individuals and organizations, may bring suit seeking declaratory judgment or injunctive relief against governmental agencies or private individuals "for the protection of the air, water and other natural resources and the public trust therein from pollution, impairment, or destruction."[140] The plaintiff bears the burden of making a *prima facie* showing of this pollution, impairment, or destruction.[141] After a *prima facie* case is established, the defendant may rebut the plaintiff's showing with contrary evidence.[142] The defendant may also raise the affirmative defense "that there is no feasible and prudent alternative to defendant's conduct and that such conduct is consistent with the promotion of the public health, safety and welfare in light of the state's paramount concern for the protection of its natural resources from pollution, impairment or destruction."[143]

A number of other states have enacted legislation modeled after MEPA,[144] although some of the statutes vary slightly from MEPA. The Connecticut Environmental Protection Act, for example, allows citizens to protect natural resources from "unreasonable" pollution, impairment, or destruction, thus including a qualitative adjective not present in MEPA.[145] Under the Minnesota Environmental Rights Act, a citizen is permitted to bring an action for conduct undertaken "pursuant to any environmental quality standard, limitation, rule, order, license, stipulation agreement or permit" issued by certain listed state agencies.[146] Despite minor variations from MEPA, most of the states that have adopted MEPA-type legislation retain the general aim of MEPA that citizens be afforded the right to protect the environment.

b. Attempts to Find a Basis for Citizen Suits in State Constitutions

Some state constitutions include public trust principles and have been the basis for lawsuits by private citizens to protect the environment. The Pennsylvania constitution broadly "declares that the people have a right to clean air, pure water and preservation of environmental values and that Pennsylvania resources are the common property of all people. As trustee of these resources, 'the Commonwealth shall conserve and maintain them for the benefit of all people.'" [147] Similarly, Hawaii's constitution proclaims that public resources in the state "are held in trust by the State for the benefit of the people." [148]

However, these constitutional provisions have proved to be of little practical importance in terms of citizen suits. [149] Although the Pennsylvania provision was potentially the most far reaching, the Pennsylvania Supreme Court has held that the provision's declaration of environmental rights is not self-executing. [150] More effective constitutional provisions for citizen groups have generally been those that prohibit the alienation of specific trust resources.[151] In *Save Our Wetlands, Inc. v. Orleans Levee Bd.*,[152] private citizens in reliance upon such a constitutional provision successfully brought suit to prevent the alienation of beds of navigable waters.[153] Finally, in some circumstances, a constitutional provision may actually limit a state's public trust rights.[154]

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[139] *See* SELMI & MANASTER, STATE ENVIRONMENTAL LAW, *supra* note 139, at § 16.08[2].

[140] Mich. Stat. Ann. § 324.1701(1).

[141] *Id*. at § 324.1703.

[142] *Id*.

[143] *Id*.

[144] CONN. GEN. STAT. ANN. § 22a-14 *et seq*., MINN. STAT. ANN. § 116B.01-.13; MASS. GEN. LAWS ANN. ch. 214, § 7A; NEV. REV. STAT. ANN. § 41.540; S.D. COMP. LAWS ANN. § 34A-10-1; and IND. ANN. STAT. § 13-6-1-1- *et seq*.

[145] CONN. GEN. STAT. § 22a-16.

[146] MINN. STAT. ANN. § 116B.03 subd. 1. The Act does not apply to every conceivable government action. *See* Holte v. State, 467 N.W.2d 346 (Minn. App. 1991).

[147] SELMI & MANASTER, *supra* note 139, at § 4.03[2][d], citing PA. CONST. ART. I, § 27.

[148] HAW. CONST. ART. XI, § 1.

[149] *See* State v. Bleck, 114 Wis. 2d 454, 338 N.W.2d 492, 497 (Wis. 1983) ("The public trust doctrine is rooted in art. IX, sec. 1 of the Wisconsin Constitution"); Save Ourselves, Inc. v. Louisiana Envtl. Control Comm'n, 452 So. 2d 1152, 1154 (La. 1984) ("A public trust for the protection, conservation and replenishment of all natural resources of the state was recognized by…the 1921 Louisiana Constitution…[and] continued by the 1974 Louisiana Constitution").

[150] SELMI & MANASTER, *supra* note 139, at § 4.03[2][d], citing to Commonwealth v. National Gettysburg Battlefield Tower, Inc., 454 Pa. 193, 311 A.2d 588 (1973).

[151] SELMI & MANASTER, *supra* note 139, at § 4.03[2][d].

[152] Save Our Wetlands, Inc. v. Orleans Levee Bd., 368 So. 2d 1210 (La. Ct. App. 1979).

[153] *Id*.

[154] N.J. STAT. ANN. CONST. ART. VIII, § 4 (limiting the state's right to claim riparian rights). The provision was held constitutional in Dickinson v. Fund for Support of Free Pub. Schools, 187 N.J. Super. 320, 454 A.2d 491 (1982).

C. TRIAL STRATEGY AND TECHNIQUES IN ENVIRONMENTAL LITIGATION*

1. Issues Often Joined with and Related to Environmental Litigation

In asserting a challenge to a highway or other transportation project, opponents will most likely raise more than one challenge under more than one federal or state statute. These additional challenges may or may not be entirely based upon requirements of environmental statutes such as NEPA. From the opponents' position, it is worthwhile to join as many claims as the facts will arguably support, since the joinder of more claims may increase the likelihood of halting, reducing the scope, or changing the location of the transportation agency's project in a way that addresses the plaintiff's goals. This section contains a brief review of some of the common statutes other than NEPA that an opponent may rely upon in challenging a highway project.

a. Section 4(f) Requirements of the Department of Transportation

Section 4(f) of the Department of Transportation (DOT) Act prohibits the DOT from using certain types of land, such as publicly owned parks, for the construction of highway projects, unless there is "no feasible and prudent alternative."[155] The U.S. Supreme Court has held Section 4(f) to require that a route or design not using land protected by Section 4(f) be adopted in lieu of a route that uses protected land unless it is unfeasible (from an engineering perspective) or imprudent (because it involves displacement or other costs of significant magnitude).[156]

After it is determined that there are no feasible and prudent alternatives to a route or design through Section 4(f) public park land, the DOT must include all possible mitigation measures to limit the harm to the Section 4(f)—protected land.[157] In many cases, the Section 4(f) requirements are more stringent, and more difficult for the DOT to satisfy, than the more generalized provisions of NEPA.[158]

b. Federal-Aid Highway Act

The Federal-Aid Highway Act requires that a public hearing concerning highway location address not only economic effects of such proposed projects, but also environmental and social impacts.[159] If a public hearing was never held or was improperly limited in its scope, opponents may successfully delay a project by causing it to be returned to the design approval stage.[160]

c. Relocation Assistance

Under the Uniform Relocation Assistance and Real Property Acquisition Policies Act, a displacing agency must provide displaced persons decent, safe, and sanitary replacement housing.[161] This Act and its implementing regulations establish that if replacement housing does not already exist, it must be constructed from project funds.[162] Because of these stringent requirements, the costs of complying with the Act and its regulations may destroy the economic feasibility of a particular transportation project. Opponents of a transportation project will often consider whether an agency has failed to comply fully with any of this Act's stringent requirements, or with similar requirements of state law.[163]

d. Federal CAA

i. Conformity.—Federal CAA requirements mandating that transportation projects conform to the SIP are commonly relied upon as a basis for litigation against highway projects. The subject of conformity is discussed in more detail in Section 1.F.3. *supra*.

ii. Indirect Source Requirements.—In the early 1970s under the CAA, the EPA began to require that state implementation plans regulate such facilities that do not emit pollutants themselves but attract polluting vehicles.[164] Examples of such facilities may include, in addition to highways, facilities such as parking lots and parking garages and, more broadly, other major transportation generators such as a stadium or large shopping center and new roads to serve them. Congress responded in 1977 by barring the EPA from direct regulation of what were labeled "indirect sources,"[165] except where a highway or other major indirect source is federally assisted. [166] However, at the same time, Congress gave the states permission, if they so chose, to regulate such indirect sources themselves as part of their SIPs.[167]

A transportation agency must be aware of whether, and the extent to which, a particular state's implementation plan regulates indirect sources. Opponents of a transportation project constituting or relating to an indirect source may be able to state a

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* This section updates, as appropriate, and relies in part upon information and analysis in RUSSELL LEIBSON & WILLIAM PENNER, LEGAL ISSUES ASSOCIATED WITH INTERMODALISM, (Federal Transit Admin., Transit Coop. Research Program, Legal Research Digest No. 5, 1996); Hugh J. Yarrington, *Environmental Litigation: Rights & Remedies*, *in* SELECTED STUDIES IN HIGHWAY LAW, ch. VIII.

[155] 49 U.S.C. § 303(c) (West 1994).

[156] Citizens to Preserve Overton Park Inc. v. Volpe, 401 U.S. 402, 28 L. Ed. 2d 136, 91 S. Ct. 814 (1971).

[157] 49 U.S.C. § 303(c). *See* discussion in § 2B *supra*.

[158] FAIRMAN & BARDIS, *supra* note 41, at 1720.

[159] 23 U.S.C. § 128.

[160] FAIRMAN & BARDIS, *supra* note 41, at 1720.

[161] 42 U.S.C. § 4601 *et seq*.

[162] *Id*.

[163] FAIRMAN & BARDIS, *supra* note 41, at 1721.

[164] 39 Fed. Reg. 25292; 39 Fed. Reg. 30439 (1974).

[165] 42 U.S.C. § 7410(a)(5)(B).

[166] 42 U.S.C. § 7410(a)(5)(B).

[167] 42 U.S.C. §§ 7410(a)(5)(A), (C).

claim, cognizable under the citizen's suit provisions of the CAA or under state law, that the implementing agency has failed to comply with applicable regulations concerning indirect sources. For example, in one case, an environmental group challenged a highway project on the grounds that ventilation stacks from a new tunnel had not been approved under applicable provisions of the state air regulations, enforceable through the SIP.[168]

e. Requirements of the ISTEA

ISTEA, which was reauthorized by TEA-21, has been cited with mixed success by plaintiffs seeking to challenge a transportation project. That legislation includes conformity requirements that work in tandem with those of the CAA.[169] Additionally, ISTEA/TEA-21 impose public review obligations, limitations on project funding, and other requirements that may create arguable grounds for citizen's suit. While some cases have addressed the merits of ISTEA claims brought by a plaintiff without addressing the jurisdictional question,[170] others have held that there is no direct right of public review under ISTEA and have refused to reach the merits.[171]

f. NHPA

NHPA[172] promotes the preservation of historic properties in the United States through two mechanisms.[173] The NHPA allows for the systematic identification of significant historic resources and establishes a comprehensive review process that requires federal agencies to consider the effects of their actions on identified historic property.[174] Resources defined as historic under the NHPA are so for Section 4(f) purposes as well.

Specifically, NHPA requires federal agencies that have jurisdiction "over a proposed Federal or federally assisted undertaking…or have authority to license any undertaking" to consider the effect of such undertaking on any historically significant structure or site listed (or eligible for listing) in the National Register prior to the approval of funding or issuance of a license.[175] The term "undertaking" has been expansively defined by the Advisory Council on Historic Preservation to include projects that are supported in whole or in part through "Federal contracts, grants, subsidies, loans, loan guarantees, or other forms of direct and indirect funding assistance."[176]

Opponents of a transportation agency project may seek to delay or halt the project by bringing a lawsuit based upon the agencies' failure to comply with NHPA.[177] Where the project is partially or federally funded, the requirements of NHPA are applicable and must be satisfied by the agency. As with NEPA, the strategy of segmenting a project to avoid the need for review under NHPA may not survive scrutiny. In *Thompson v. Fugate*,[178] an attempt by the Secretary of Transportation to separate a federally-funded 8.3-mi segment of a highway from the remaining 21 mi of the project was unsuccessful.

g. Federal CWA

Federal CWA citizens' suit provisions, discussed above,[179] may create a basis for a claim against a transportation agency for illegal discharge or failure to obtain a necessary permit. Other sections of this chapter discuss applicable provisions under this Act.[180]

For any transportation project involving the crossing of a wetland or body of water, or involving any need to dredge or fill a jurisdictional wetland, the requirements of Section 404 of the CWA[181] may trigger the need for a permit from the Army Corps of Engineers and create another basis for someone to challenge the completion of the project. While the citizens' suit provisions of the Act do not expressly authorize suit against the Corps of Engineers for the issuance of a Section 404 permit, review may be had through the Administrative Procedures Act.[182]

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[168] *See* Sierra Club v. Larson, 2 F.3d 462 (1st Cir. 1993).

[169] 23 U.S.C. § 135(f)(2)(C); *See* § 1.F.3 *supra.*

[170] Conservation Law Found. v. Federal Highway Admin., 827 F. Supp. 871, 884 (D.R.I. 1993); Clairton Sportsmen's Club v. Penn. Turnpike Comm'n, 882 F. Supp. 455, 478 (W.D. Pa. 1995).

[171] Sierra Club v. Pena, 915 F. Supp. 1381 (N.D. Ohio 1996); Town of Secaucus v. United States Dep't of Transp. 889, F. Supp. 779, 788 (D.N.J. 1995) (indicating, however, that standing to challenge a decision under ISTEA might be founded on the Administrative Procedures Act). See discussion of TEA-21 and conformity in § 1 *supra*.

[172] 16 U.S.C. 470, *et seq*. The NHPA is discussed in § 3.E *supra*.

[173] 16 U.S.C. 470.

[174] *Id*.

[175] 16 U.S.C. § 470f.

[176] 36 C.F.R. § 800.2(c). *See* Edwards v. First Bank of Dundee, 534 F.2d 1242, 1245 (7th Cir. 1976) (holding that a project is a federally assisted undertaking if it is wholly or partially funded with federal money). *See also* Gettysburg Battlefield Preservation Ass'n v. Gettysburg College, 799 F. Supp. 1571, 1581 (M.D. Pa. 1992).

[177] Opponents will need to satisfy standing requirements to survive a motion to dismiss. However, courts have held that aesthetic injury to plaintiffs or use of the historic building in issue have been sufficient to satisfy the requirements that a person be injured in fact. *See* Save the Courthouse v. Lynn, 408 F. Supp. 1323 (S.D.N.Y. 1975) (aesthetic or environmental interest sufficient); Neighborhood Dev. Corp. v. Advisory Council on Historic Preservation, 632 F.2d 21, 24 (6th Cir. 1980) (use of the historic building in issue is sufficient).

[178] Thompson v. Fugate, 347 F. Supp. 120, 124 (E.D. Pa. 1972).

[179] § 6.B.2.a.

[180] *See* §§ 3A, 3B, and 5B.

[181] 33 U.S.C. § 1251 *et seq*.

[182] 5 U.S.C. § 701 *et seq.*; Sierra Club v. Pena, 915 F. Supp. 1381, 1391 (N.D. Ohio 1996).

h. Local Zoning and Land Use Regulations

Local zoning and land use regulations define the uses to which land may be put, the size and location of buildings on particular parcels, and the density to which land may be put. Opponents of a transportation project may allege that a proposed project violates local zoning and land use regulations in an attempt to delay or halt a construction project. The application of these local laws to transportation agencies will vary from one jurisdiction to another, and the route that must be followed by an agency to meet the requirements of these laws may involve administrative hearings, judicial hearings, or a quasi-legislative process.[183]

Proponents of a project may argue that it is exempt from these local ordinances or that the local ordinances are preempted by federal law. However, such arguments may not always be successful. In *City of Cleveland v. City of Brook Park*,[184] the Cleveland Hopkins International Airport (which is owned by Cleveland) sought to expand its airport into the city limits of Brook Park.[185] Because Brook Park had enacted zoning ordinances establishing procedures for obtaining a special use permit for new airport construction and noise levels for new construction, Cleveland argued that Brook Park's ordinances were preempted by federal law and in violation of the Commerce Clause and the U.S. Constitution.[186] The District Court rejected these arguments and denied Cleveland's motion for summary judgment.[187] In *Medford v. Marinucci Bros & Co.,* a contractor's use of land as a temporary site for storing equipment and stockpiling fill in connection with a state contract for highway construction was held to be immune from local zoning.[188]

Where opponents contest that local zoning or land use regulations prohibit a proposed project, transportation agencies will need to examine whether the agency is exempt by enabling legislation from local requirements, and also whether the local regulations are preempted by federal law.[189] Particularly for regional transportation agencies charged with the responsibility of developing intermodal transportation facilities, enabling legislation may exempt the regional agency from local ordinances. Moreover, as cases discussed in the next two sections illustrate, and in contrast to *City of Cleveland*, parties asserting preemption sometimes prevail.[190]

i. Federal Aviation Act.—Where a transportation agency is involved in an airport project, opponents' claims based upon failure to follow local zoning regulations or other land use ordinances may be preempted under the Federal Aviation Act. The Federal Aviation Act provides in part that the United States possesses exclusive jurisdiction over the airspace of the United States and that the FAA is charged with developing policy for the use of this airspace.[191] The Act, which authorizes the promulgation of extensive regulations governing aircraft operations, is generally considered to preempt local ordinances that purport to regulate the operation of aircraft.[192]

For example, in *United States v. City of Berkeley,*[193] a district court held that a local ordinance requiring the FAA to obtain a permit prior to constructing a radar installation was preempted by the Aviation Act.[194] The court reasoned that the Federal Aviation Act gives the FAA the power to "acquire, establish, and improve air-navigation facilities wherever necessary," and that the local permit requirement was inconsistent with this specific grant of authority.[195] However, other courts have concluded that this statute does not preempt state or local control of the location and environmental impact of airports.[196]

ii. Noise Control Act.—Where opponents of a highway project argue that a project violates a local or state ordinance concerning noise levels, a transportation agency may defend the action on the grounds of preemption by the Noise Control Act. The Noise Control Act of 1972[197] promoted federal research programs and public information activities and authorized the promulgation of noise or emission standards for noise sources and new products.[198] Under the Act, the administration of the EPA is charged with the responsibility of coordinating the noise control programs of all the federal agencies.[199]

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[183] RUSSELL LEIBSON & WILLIAM PENNER, LEGAL ISSUES ASSOCIATED WITH INTERMODALISM 11, (Transit Coop. Research Digest No. 5, Federal Transit Admin., 1996).

[184] City of Cleveland v. City of Brook Park, 893 F. Supp. 742 (N.D. Ohio 1995).

[185] *Id.*

[186] *Id.* at 747.

[187] *Id.* at 752.

[188] Medford v. Marinucci Bros. & Co., 344 Mass. 50 (1962).

[189] LEIBSON & PENNER, *supra* note 183, at 12.

[190] *Id.*

[191] 49 U.S.C. § 40103(a) and (b).

[192] Blue Sky Entertainment, Inc. v. Town of Gardiner, 711 F. Supp. 678, 693 (N.D.N.Y. 1989) (local ordinance concerning parachute jumping preempted because parachute jumping constitutes aircraft operation).

[193] United States v. City of Berkeley, 735 F. Supp. 937, 940 (E.D. Mo. 1990).

[194] *Id.*

[195] *Id.*

[196] Gustafson v. City of Lake Angeles, 76 F. 3d 778 (6th Cir., 1996) (ordinance regulating sea plane landings not preempted).

[197] 42 U.S.C. § 4901 *et seq*.

[198] *See* 42 U.S.C. §§ 4903, 4913 (research and public information); 42 U.S.C. §§ 4904, 4905 (major noise sources and noise emission standards).

[199] 42 U.S.C. § 4903. The Act expressly permits citizen suits and a violation of any of the noise control requirements promulgated under the Act could be alleged by opponents of a highway project. 42 U.S.C. § 4911(a). Prior to suit, 60-days notice must be provided to the Administrator of the EPA. An opponent may not bring a suit for violation of a noise control requirement if the EPA has commenced and is diligently

However, defending such actions on the grounds of preemption may be difficult. In *New Hampshire Motor Transport v. Town of Plaistow*,[200] the defendant town had issued a cease and desist order based on a local ordinance to prohibit a trucking company from continuing its nighttime access to and from a trucking terminal.[201] The trucking company claimed that the local ordinance was preempted by the Noise Control Act, because it was imposed in part to eliminate the noise caused by the trucks.[202] The Court of Appeals for the First Circuit held that the local ordinance was not preempted, as the Noise Act was not designed to remove all state and local control over noise.[203]

2. Importance of the Complaint

Opponents of a highway project generally try to convince a transportation agency to modify or halt the project before initiating suit. Opponents may even show the transportation agency a draft version of their complaint. Frequently a transportation agency will simply ignore opponents until a lawsuit is commenced. However, depending upon the nature of the opponent's concerns, a strategic project modification by the agency that occurs prior to the plaintiff filing suit may be a good way to weaken the plaintiff's case and keep the project on schedule. In undertaking such a modification, of course, the agency should be sure to undertake any further environmental review necessary to determine that there are no significant new impacts created by the project as modified. A transportation agency should evaluate an opponent's concerns prior to litigation with an eye to strengthening the agency's position should litigation be commenced.

After opponents initiate litigation, the complaint and any supporting affidavits become critical. In environmental litigation, opponents will likely seek preliminary injunctive relief to halt the project, and the success or failure of the litigation often depends on whether a preliminary injunction is granted. Although federal complaints technically require only notice pleading, to prevail on obtaining a preliminary injunction the complaint and supporting affidavits must be carefully and thoroughly drafted to be factually precise and correct.[204] It is unlikely that a complaint and supporting affidavits that are poorly drafted will result in issuance of a preliminary injunction.

3. The Discovery Process

In litigation, each party is permitted to learn about or discover the other parties' claims and defenses. The mechanisms and techniques used by parties to achieve this knowledge is generally called the discovery process. This section first examines what discovery techniques may be used by an opponent of a transportation agency and then examines techniques the agency may itself use to learn about the opponent's claims. Finally, this section explains the process by which a party may seek court orders to either compel discovery of a particular issue or to protect privileged information. The discussion is necessarily general, as discovery rules and practices vary from jurisdiction to jurisdiction.

a. Discovery by Plaintiffs Against Transportation Agency

Technically, discovery is the ascertainment of facts after litigation has commenced. However, opponents typically begin ascertaining facts long before a complaint is served.[205] Although opponents may not use technical discovery procedures to gather facts for a prospective lawsuit before a complaint is filed, opponents may use the Freedom of Information Act (FOIA)[206] or a similar state statute.[207] Under the FOIA, a citizen may inspect public records and files on all matters of public concern, subject to certain statutory exemptions.[208] By requesting information from a transportation agency, opponents may gather the necessary facts to initiate litigation. Where judicial review is on the administrative record, a court may be receptive to an agency motion to squelch discovery of matters outside of that record.

One defense strategy available to the transportation agency is grounded in Section (b)(5) of the FOIA.[209] Section (b)(5) states that a citizen is not entitled to "inter-agency or intra-agency memorandums or letters which would not be available by law to a party other than an agency in litigation with the agency."[210] Essentially, subsection (b)(5) protects against attempts to delve into intra-agency and interagency communications that are privileged. If an agency could withhold the documents requested in litigation on the grounds of privilege, then the agency need not provide the documents prior to litigation.

The privilege typically asserted is the deliberative process privilege, which protects the decision-making processes of the executive branch of the government from discovery in civil actions.[211] The privilege applies to

prosecuting a suit. However, the opponent may still intervene. *Id*. at § 4911(b). A court may award costs and fees to any party whenever the court deems such award appropriate. 42 U.S.C. § 4911(d).

[200] N.H. Motor Transport v. Town of Plaistow, 67 F.3d 326 (1st Cir. 1995).

[201] *Id.* at 327.

[202] *Id.* at 332.

[203] *Id.*

[204] FAIRMAN & BARDIS, *supra* note 41, at 1745.

[205] *Id.* at 1736

[206] 5 U.S.C. § 552.

[207] *See, e.g.,* MASS. GEN. L. ch. 30A § 11½.

[208] 5 U.S.C. § 552(a).

[209] 5 U.S.C. § 552(b)(5).

[210] *Id*.

[211] *See* Hopkins v. United States Dep't of Hous. & Urban Dev., 929 F.2d 81, 84 (2d Cir. 1991); Earnst & Mary Hayward Weir Found. v. United States, 508 F.2d 894, 895 n.2 (2d Cir.

documents and discussions that are pre-decisional and deliberative in nature.[212] As with other privileges, the burden of justifying it falls upon the party seeking to invoke it.[213]

To prevent pre-suit disclosure of privileged documents, a transportation agency needs to have its counsel carefully review any documents responsive to a request to determine whether any privilege should be asserted.

After the suit is filed, opponents will use the traditional discovery mechanisms, such as depositions, production requests, interrogatories, and requests for admission.[214] In actions raising NEPA issues or the Section 4(f) requirements, opponents will be particularly interested in the agency's consideration of alternatives.[215] In responding to opponents' requests, particularly with respect to the consideration of alternatives, an agency needs to be particularly careful not to provide any privileged information.

The availability of discovery in NEPA cases will depend upon whether plaintiffs seek to supplement the administrative record with additional studies and documents, depositions by experts, and exhibits. The U.S. Supreme Court has held that the principal focus of judicial review is the administrative record. A district court may, however, take additional explanatory evidence for the agency's decision if it deems it necessary.[216] If the district court allows plaintiffs to supplement the agency's administrative record, it may allow discovery.[217]

b. Discovery by the Transportation Agency

The use of formal discovery after litigation is commenced serves valuable functions for a transportation agency.[218] First, an agency may discover whether any of its defenses are merited and warrant filing a motion for summary judgment to end the litigation prior to trial.[219] Challenges to standing and the assertion of privilege are two defenses that, if successful, can avoid the need for full development and resolution of a case's merits. Second, discovery may be used by an agency to prune away allegations or elements of plaintiffs' causes of action that lack evidentiary foundation.[220] If causes of action can be eliminated by a successful motion for summary judgment, a transportation agency can refocus trial preparation resources towards the issues that will be seriously contended at trial. Third, the discovery process may bring to the fore any imbalance in available resources between it and the plaintiffs, which may be a poorly funded interest group. An agency may, subject to the limits of law and the civil rules, seek extensive discovery from its opponents. Where opponents lack the resources needed to respond to discovery in a complete and timely way, the use of comprehensive and precise discovery may lead to the withdrawal or dismissal of the opponent's challenge or a settlement on favorable terms.

c. Ability of Either Party to Seek Court Orders to Either Compel Discovery or Protect Privileged Information

Although a party may engage in discovery of greater or lesser scope, depending on the nature of the action, it may not overstep propriety in its discovery procedures. Generally, federal and state discovery rules permit a party to object to improper interrogatories, production requests, or requests to admit that are overly broad, vague, or otherwise improper.[221]

In addition, discovery requests may seek privileged information. An attorney's advice, an attorney's work product (trial preparation effort), and an agency's deliberative and pre-decisional information and documents are privileged. These privileges, and any other applicable privileges, must be asserted by the party to prevent the disclosure of information.

When a privilege is asserted, the opposing party may disagree and believe that the information is being unreasonably withheld. To resolve this type of discovery dispute, the parties generally each submit briefs supporting their positions and the court may conduct an *in-camera* inspection of the withheld documents or information.[222] An *in-camera* inspection is when the court views the withheld documents or information without the parties or witnesses present and determines whether they should be disclosed.

Where a party improperly withholds documents without a reasonable basis, or where a party fails to provide discovery responses, the court has discretion to issue a variety of sanctions including assigning the costs of filing certain motions to a disobedient party, staying the proceeding until a discovery order is obeyed, or entering of a default against the disobedient party.[223]

1974); Litton Indus., Inc. v. Lehman Bros. Kuhn Loeb, Inc., 125 F.R.D. 51, 53 (S.D.N.Y. 1988).

[212] *See* Local 3, Int'l Bhd. Of Elec. Workers, AFL-CIO, 845 F.2d 1177, 1180 (2d Cir. 1988) ("Local 3"). Information is "pre-decisional" if it "precedes, in temporal sequence, the decision to which it relates," Hopkins, 929 F.2d at 84, rather than a "post-decisional memoranda setting forth the reason for an agency decision already made." A. Michael's Piano v. F.T.C., 18 F.3d 138, 147 (2d Cir. 1994).

[213] *See* Von Bulow v. Von Bulow, 811 F.2d 136, 144 (2d Cir. 1987).

[214] *See* FED. R. CIV., pp. 26, 28, 30, 31, 33–36.

[215] FAIRMAN & BARDIS, *supra* note 41, at 1740.

[216] Camp v. Pitts, 411 U.S. 138 (1973); Citizens To Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402 (1971).

[217] *See* Coalition on Sensible Transp., Inc. v. Dole, 826 F.2d 60 (D.C. Cir. 1987).

[218] FAIRMAN & BARDIS, *supra* note 41, at 1740–42.

[219] *Id*.

[220] *Id*.

[221] *See* FED. R. CIV. P. 33–36.

[222] *See* FED. R. CIV. P. 37.

[223] *Id*.

4. Defensive Strategy and Affirmative Defenses

a. Motions That Prevail on Technical Defects

A transportation agency may be able to raise technical issues in defense of an action that do not address the merits of the case. These technical defects may involve issues such as improper service or a defective summons. Raising these issues may result in dismissal of the suit and short term success, but usually will only delay the eventual outcome of the litigation.[224] Opponents may simply cure the defect raised and the project will again be under the threat of litigation.

However, under certain circumstances the technical issues should be raised. If there is no serious substantive legal threat to the project, or the opposition is very unorganized and unlikely to persevere after an early setback, technical issues should be raised.[225] A transportation agency needs to carefully gauge the strength of its opponent before deciding whether to raise technical issues.

b. Raising Affirmative Defenses

It is generally advantageous for a transportation agency to plead as many affirmative defenses as possible. Whether a transportation agency will succeed in asserting a particular defense depends upon the facts and timing of the opponent's claim. If the transportation agency learns (through discovery) facts that support any of its special defenses, the transportation agency may move for summary judgment in an attempt to truncate the litigation prior to trial. The following sections discuss the more frequently raised special defenses but are not a comprehensive list of all special defenses that might be raised.[226]

i. Laches.—The rule in equity is well established that if a party unreasonably delays in applying for injunctive relief, the parties' action may be barred by laches. In environmental litigation, the defense of laches has been frequently raised.[227] To establish laches, a defendant must show a delay in asserting a right or claim, that the delay was not excusable, and that there was undue prejudice to the party against whom the claim is asserted.[228]

There is ample precedent for a court to hold that opponents of a project have slept on their claims and that those claims are barred by laches.[229] In *Stow v. United States*,[230] plaintiffs filed a lawsuit to stop a project to eliminate perennial flooding by construction of a dam and relocation of a state highway.[231] Plaintiffs argued that the defendants failed to follow NEPA.[232] The defendants, which included both the U.S. Department of Transportation and the New York State Department of Transportation, argued that plaintiffs' lawsuit should be barred by laches.[233] The District Court barred plaintiffs' claims and reasoned that a significant degree of work was completed on the project at substantial costs and that the environmental changes to the area had already occurred.[234]

Although the application of laches depends on the facts of the particular case and is consigned as a matter within the sound discretion of the district court, this discretion must be exercised within limits.[235] In environmental cases it has been recognized that "laches must be invoked sparingly" in suits brought to vindicate the public interest. Two reasons are frequently given for this policy.[236] First, it is understood that "citizens have a right to assume federal officials will comply with

[224] FAIRMAN & BARDIS, *supra* note 41, at 1751.

[225] *Id*.

[226] See *Affirmative Defenses in Actions Challenging Omission or Adequacy of Environmental Impact Statement Under § 102(2)(c) of the National Environmental Policy Act of 1969*, 63 A.L.R. Fed. 18 (1997).

[227] FAIRMAN & BARDIS, *supra* note 41, at 1752.

[228] Jersey Heights Neighborhood Ass'n v. Glendening, 2 F. Supp. 2d 772, 780 (D. Md. 1998), *aff'd on other grounds and rev'd in part,* 174 F.3d 180 (4th Cir. 1999); Save Our Wetlands, Inc. v. United States Army Corps of Engr's, 549 F.2d 1021, 1026 (1977); Clark v. Volpe, 342 F. Supp. 1324 (E.D. La. 1972), *aff'd*, 461 F.2d 1266 (5th Cir. 1972).

[229] *See, e.g*., Jersey Heights Neighborhood Ass'n v. Glendening, 2 F. Supp. 2d at 780 (no reasonable excuse for delay of over 8 years in filing claim), City of Rochester v. United States Postal Service, 541 F.2d 967 (2d Cir. 1976); Sierra Club v. Alexander, 484 F. Supp. 455 (N.D.N.Y. 1980), *aff'd*, 633 F.2d 206 (2d Cir. 1980); Clark v. Volpe, 342 F. Supp. 1324 (E.D. La. 1972), *aff'd*, 461 F.2d 1266 (5th Cir. 1972); Summersgill Dardar, et al. v. LaFourche Realty Co., Inc., et al., 1988 U.S. Dist. LEXIS 5715 (E.D. La. 1988).

[230] Stow v. United States, 696 F. Supp. 857 (W.D.N.Y. 1988).

[231] *Id.* at 858.

[232] *Id.* at 859.

[233] *Id.* at 862–63.

[234] *Id.* at 863. The dam was 31 percent completed and the highway relocation work was 49 percent completed, and all the trees and brush had been removed. *Id.*

[235] *See, e.g*., Coalition for Canyon Preservation v. Bowers, 632 F.2d 774, 779 (9th Cir. 1980).

[236] Preservation Coalition, Inc. v. Pierce, 667 F.2d 851, 854 (9th Cir. 1982).

applicable law."[237] Second, because "ordinarily the plaintiff will not be the only victim of alleged environmental damage," "[a] less grudging application of the doctrine might defeat Congress' environmental policy."[238] However, even in instances where courts have recognized the need to invoke laches sparingly, courts have still barred plaintiffs' claims on the grounds of laches.[239]

ii. Standing.—Another defense frequently raised in environmental suits is plaintiffs' lack of standing to sue.[240] Standing is a judicial determination to ensure that the plaintiff is the proper person to bring a particular lawsuit. The United States Supreme Court has established a two-pronged test for standing.[241] The first prong asks whether the plaintiffs have suffered injury in fact. The second prong asks whether the plaintiffs' interests are within the zone of interest protected by relevant statute.[242]

Under the current law of standing, most resourceful plaintiff's attorneys may allege facts sufficient to support the standing requirements.[243] However, a transportation agency should not overlook the possibility of raising this defense. Where a defendant asserts that plaintiffs lack standing to bring suit, the burden is on the plaintiffs to prove to the court that they fulfill the standing requirements.

iii. Procedural Defects in a Class Action Suit.—Plaintiffs in environmental litigation frequently initiate class action lawsuits.[244] There are numerous procedural grounds upon which a class action may be attacked by a defendant transportation agency.[245]

Raising procedural defects concerning a class action lawsuit is advantageous where a defendant needs additional time to prepare before trial.[246] Although plaintiffs may ultimately overcome the procedural defects, it will take additional time to resolve such issues. For example, in *McDowell v. Schlesinger*,[247] a district court noted that "[t]he procedural technicalities and delays that would have resulted from the preliminary determinations of the class action question would have delayed resolution of this action."[248]

One issue a transportation agency should consider is whether it is beneficial to the agency that the matter proceed as a class action.[249] If the agency were to prevail on the merits of the litigation, a class action would preclude all members of the class from newly raising the issues decided in the litigation. In *Sierra Club v. Hardin*,[250] the defendants successfully employed this strategy as the court ordered the plaintiffs' organizations to sue on behalf of all of their members to avoid prejudice to the defendants.[251]

iv. Sovereign Immunity.—Where a state transportation agency is a named defendant in environmental litigation brought in federal court, the defense of sovereign immunity may be raised. The likelihood of prevailing on the defense will depend in part upon the nature of the claims asserted by the plaintiffs. For a discussion of the defense of sovereign immunity, see Section 5.B.3.C of this chapter. If successful in claiming sovereign immunity, the state agency will be, for better or worse, relegated to a spectator role in further proceedings.

v. Statute of Limitations.—Statute of limitations is an additional defense that is frequently raised in environmental litigation. It is similar to the concept of laches in that the defendants are essentially asserting that plaintiffs have waited too long before bringing their suit. However, instead of relying upon a balancing of the equities, the defendants rely upon a statute that expressly states how long after an incident or event a plaintiff must bring a lawsuit. Because statutes of limitation vary for each statute that plaintiffs assert has been violated, a transportation agency needs to determine whether each statute raised in litigation challenging a project has a limitations period and whether the limitations period has passed. For example, the statute of limitations for actions brought under NEPA pursuant to the APA is 6 years.[252]

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[237] *Id*. at 854; City of Davis v. Coleman, 521 F.2d 661, 678 (9th Cir. 1975) ("It is up to the agency, not the public, to ensure compliance with NEPA in the first instance.").

[238] Portland Audubon Soc'y v. Lujan, 884 F.2d 1233, 1241 (9th Cir. 1989).

[239] *See, e.g*., Apache Survival Coalition v. United States, 21 F.3d 895, 905–06 (9th Cir. 1993).

[240] FAIRMAN & BARDIS, *supra* note 41, at 1755.

[241] Ass'n of Data Processing Service Orgs., Inc. v. Camp., 397 U.S. 150, 25 L. Ed. 2d 184, 90 S. Ct. 827 (1970).

[242] *Id.* For an additional discussion of these standing criteria, *see* § 6.B.1 *supra*.

[243] FAIRMAN & BARDIS, *supra* note 41, at 1755.

[244] *Id.*

[245] Rule 23 of the FED. R. CIV. P. governs class action, and subsections (a) and (b) of the rule set forth the prerequisites that must be satisfied to maintain a class action, and subsection (c) sets forth some of the procedural requirements such as notice that must be completed to maintain a class action.

[246] FAIRMAN & BARDIS, *supra* note 41, at 1756.

[247] McDowell v. Schlesinger, 404 F. Supp. 221 (W.D. Mo. 1975).

[248] *Id*. at 226, n.2. The plaintiffs had initially brought a class action but decided it was not necessary to proceed with a class action since if plaintiffs were successful, the relief sought would apply to the entire class the plaintiffs sought to represent. *Id.*

[249] FAIRMAN & BARDIS, *supra* note 41, at 1756.

[250] Sierra Club v. Hardin, 325 F. Supp. 99 (D. Alaska 1971).

[251] *Id.*

[252] *See* Southwest Williamson County Community Ass'n, Inc. v. Slater, 173 F.3d 1033, 1036 (6th Cir. 1999) (holding that a 6-year statute of limitations for "civil actions" against the United States applies to actions under NEPA brought pursuant to the APA). The court stated, "The statute of limitations is six years from the time the claim accrues; in this case, from the time of 'final agency action' as required by the APA." *Id*. *See also* The Jersey Heights Neighborhood Ass'n et

c. The Useful Tool of Summary Judgment

Under Rule 56 of the Federal Rules of Civil Procedure, a party to litigation may obtain summary judgment on all or some of the causes of action raised in the complaint by demonstrating that there are no genuine issues of fact and that the party is entitled to judgment as a matter of law.[253] A party may demonstrate that there are no genuine issues of material fact by submitting affidavits or other supportive documents.[254] A transportation agency may move for summary judgment on all the causes of action and defenses in dispute or may pick and choose those claims on which it is likely to prevail.[255]

If the agency prevails on a motion for summary judgment on all of plaintiffs' claims, the litigation is over. However, plaintiffs may appeal the decision to an appellate court. Where the agency prevails on only certain issues, opponents of the project may not appeal the court decision until after the remaining issues have been tried and a final judgment entered.[256]

D. ALTERNATIVE DISPUTE RESOLUTION OF ENVIRONMENTAL ISSUES*

Mediation is a relatively new approach to managing and resolving conflict over environmental issues. Environmental conflict arises when parties involved in a decision-making process disagree about an action that has the potential to have an impact upon the environment. When one or more of these parties is able to block the proposed action of the other parties, a stalemate occurs. Mediation offers a resolution to the stalemate without extensive delay, substantial attorney's fees, and protracted litigation.

As the practice of environmental mediation evolves, practitioners have been able to identify certain techniques that have worked best and resulted in a successful resolution. This section discusses the mediation process itself, identifies certain techniques for intractable environmental conflicts, and compares the advantages of mediation over traditional litigation.

1. The Mediation Process

The identification and selection of a mediator is the first critical step in the mediation process.[257] Because the mediator leads the mediation and establishes the ground rules for how mediation will occur, the selection of the mediator is very important. For any party, including a transportation agency, a mediator must be objective and not have a personal interest in the outcome of the dispute.[258] If there are facts that support that the mediator has a personal interest, the mediation process may be unsuccessful. Even if a party refrains from raising the mediator's personal interest prior to mediation, the party may still raise the issue at any time and likely derail the mediation.

A second criteria to consider in selecting a mediator is the extent of the mediator's technical expertise.[259] Frequently, environmental litigation involves substantial inquiry into specialized or sophisticated issues of engineering or the natural or social sciences, and some technical expertise is necessary to understand the parties' positions. However, too much technical expertise by a mediator may lead to an overemphasis on technical details at the expense of building the relationship between the parties that is necessary for a successful resolution through mediation.

A third consideration in selecting a mediator is his or her leadership ability. Among Alternative Dispute Resolution professionals there is substantial disagreement as to how aggressive mediators should be in leading the parties to agree on the structure of the mediation.[260] If the parties lack consensus on most issues, frequently the parties will also lack consensus as to how the mediation should proceed. A mediator with strong leadership skills may drive the parties to an agreement as to the length, scope, and content of the parties' position statements, whether opening arguments will be held, and whether witnesses will be called.

In some environmental disputes it is very difficult for the parties to identify discrete issues to mediate.[261] Uncertainty as to the environmental condition of a site and the complexity of interrelated interests and concerns may make issue identification a substantial challenge.[262] To avoid ambiguity, a transportation agency should identify the issues it wishes to mediate and seek agreement from the other parties. If mediation commences without any identification of the issues, the mediation may not reach a successful result.

After the parties have selected a mediator and identified the issues to be mediated, mediation may begin. A common tactic of mediators is to stress

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al. v. Glendening et al., 174 F.3d 180 (1999) (holding that final agency action triggers the 6-year statute of limitations for review of action and that the 6-year statute of limitations had not expired on claims that project should have had a supplemental environmental impact statement prepared under NEPA).

[253] FED. R. CIV. P. 56.

[254] *Id*.

[255] *Id*.

[256] FED. R. CIV. P. 54(b).

* This section updates, as appropriate, and relies in part upon information and analysis in MEDIATING ENVIRONMENTAL CONFLICTS (J. Walton Blackburn & Willa Marie Bruce eds., 1995).

[257] MEDIATING ENVIRONMENTAL CONFLICTS 270 (J. Walton Blackburn & Willa Marie Bruce eds., 1995).

[258] *Id*.

[259] *Id*.

[260] *Id*.

[261] *Id*. at 273.

[262] *Id*.

consensus building between the parties. A mediator may identify any facts or legal concept that the parties agree upon. By focusing on consensus building, the mediator sets the tone for achieving consensus with regard to the more intractable facts or legal concepts.

a. Dispute Resolution of Intractable Environmental Conflicts

A key to successful environmental mediation between parties "lies in the distinction between conflict and dispute."[263] Environmental conflicts refer to the long-term divisions between groups with different social beliefs about the relationship between humans and the environment.[264] Conflicts between these groups are played out in an endless series of incremental disputes concerning a variety of policies affecting the environment.[265] Although mediation will not resolve the underlying and ongoing intractable conflict, it may be employed to resolve each incremental dispute.[266]

In any dispute there are core and overlay components.[267] To resolve a dispute through mediation, the parties and the mediator should be aware of the concepts of core and overlay components. The *core* components are those issues that are truly in dispute. The *overlay* components are generally misunderstandings, disagreements over technical facts, escalation, questions of procedural fairness, and polarization.[268] The overlay component may become so important to the parties that the decisions that ultimately resolve the conflict may be based upon the overlay problems, not the core problems.[269]

2. Advantage and Disadvantages of Mediation as Compared to Litigation

Mediation can be a faster and less costly procedure for resolving disputes than is litigation. Adjudication by a court is focused on rights, duties, and remedies, and little attention is paid to cost.[270] In addition, the increasing number of environmental disputes adds to the burden of overcrowded federal and state court systems in which cases can languish for years prior to trial.[271]

Moreover, the adversarial nature of litigation tends to polarize litigants' positions and discourage direct and open communication, sharing of information, and joint problem solving.[272] The court process is typically a win-lose process and unsuccessful litigants are thereby encouraged to keep pursuing a case through appeals.[273]

However, mediation is not without its own drawbacks. Legitimate concerns have been raised regarding power imbalances among participants in mediation in terms of experience and skills in negotiation, as well as scientific and technical expertise.[274] In addition, critics note that the mediation process may not really deliver better public health or environmental protection outcomes.[275] Finally, there has not been any systematic study that mediation is faster or less expensive than litigation.[276] In practice, mediation frequently occurs while litigation is pending and parties may be spending time and money on maintaining two concurrent processes, rather than using mediation as the only means of achieving resolution.

[263] *Id*. at 102.
[264] *Id*.
[265] *Id*.
[266] *Id*.
[267] *Id*. at 107.
[268] *Id*.
[269] *Id*.
[270] *Id*. at 206.
[271] *Id*.
[272] *Id*.
[273] *Id*.
[274] *Id*. at 207.
[275] *Id*.
[276] *Id*.

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