SECTION 3

ENVIRONMENTAL LAW

A. THE STATUTORY REGIME: AN OVERVIEW

Today, transit agencies are subject to a myriad of environmental laws and regulations.¹ Principally, these include environmental quality control measures under the National Environmental Policy Act of 1969,² Section 4(f) of the Department of Transportation Act,³ the Clean Air Act,⁴ the Federal Water Pollution Control Act (commonly referred to as the "Clean Water Act"),⁵ the Resource Conservation and Recovery Act,⁶ and the Comprehensive Environmental Response, Compensation, and Liability Act.⁷ Additional requirements are imposed on contractors using federal transit funds.⁸

http://www.fta.dot.gov/about/legislation_law.html and Federal Highway Administration (FHWA) Environment Web site, http://www.fhwa.dot.gov/environment/env_sum.cfm (visited Mar. 20, 2014).

² National Environmental Policy Act, 42 U.S.C. §§ 4321 *et seq.*. NEPA implementing regulations are at 40 C.F.R. § 1500.1 *et seq.* DOT regulations implementing NEPA are at 23 C.F.R. §§ 771.101 *et seq.* and 49 C.F.R. §§ 520.1 *et seq.* For a recent decision interpreting the National Environmental Policy Act and Section 4(f) of the Department of Transportation Act of 1966 in a transit context, see Building a Better Bellevue v. U.S. Dept. of Transp., 2013 U.S. Dist. LEXIS 31819 (W.D. Wash. 2013). See also Concerned Dublin Citizens v. City of Dublin, 214 Cal. App. 4th 1301, 154 Cal. Rptr. 3d 682 (2013).

³ 49 U.S.C. § 303 (Section 4(f) of the DOT Act); 23 U.S.C. § 138. Protections for a park, recreation area, or wildlife or waterfowl refuge of national, state, or local significance or any land from a historic site of national, state, or local significance used in a transit project is required by 49 U.S.C. § 303.

 4 Clean Air Act, Pub. L. No. 88-206, 77 Stat. 392 (1963), codified as amended at 42 U.S.C. \$ 7401 $et\ seq.$ and scattered sections of 29 U.S.C.

 5 Federal Water Pollution Control Act, Pub. L. No. 92-500, 86 Stat. 816 (1972), codified as amended at 33 U.S.C. \$ 1251 $et\ seq..$

⁶ Solid Waste Disposal Act, Pub. L. No. 107-377, 116 Stat. 3115 (2002), codified as amended at 42 U.S.C. §§ 6901 *et seq.*

⁷ Comprehensive Environmental Response, Compensation and Liability Act of 1980, Pub. L. No. 96-510. 94 Stat. 2767, codified as amended at 42 U.S.C. §§ 9601 *et seq.* Additional requirements include Executive Order No. 11514, 35 Fed. Reg. 4247 (Mar. 7, 1970) as amended, "Protection and Enhancement of Environmental Quality," *see* 42 U.S.C. § 4321 note; 49 U.S.C. § 5324(b); Council on Environmental Quality Regulations, 40 C.F.R. pt. 1500 *et seq.*; joint FHWA/FTA regulations, "Environmental Impact and Related Procedures," 23 C.F.R. pt. 771 and 49 C.F.R. pt. 622. Executive Order No. 11738, "Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans," 42 U.S.C. § 7606 note. Recipients of FTA funds are required to comply with the following:

1. Institution of environmental quality control measures under the National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321 *et seq.* and Executive Order No. 11514, as amended, 42 U.S.C. 4321 note;

2. Notification of violating facilities pursuant to Executive Order No. 11738, 42 U.S.C. 7606 note;

Environmental law is highly regulatory in nature, and therefore includes more acronyms than most. To assist the reader, a list of the principal acronyms used in this Section follows:

AAQS—Ambient Air Quality Standards ARRA—American Recovery and Reinvestment Act CE—Categorical Exclusions CERCLA—Comprehensive Environmental Response, Compensation, and Liability Act CEQ—Council on Environmental Quality CMAQ—Congestion Mitigation and Air Quality Improvement CMS—Congestion Management System DFP—Dredge or Fill Program DOJ—Department of Justice DOT—Department of Transportation EA—Environmental Assessment EIS—Environmental Impact Statement EPA—Environmental Protection Agency

ESA—Endangered Species Act of 1973

FIP—Federal Implementation Plan

FERC—Federal Energy Regulatory Commission

FHWA—Federal Highway Administration

FONSI-Finding of No Significant Impact

FTA—Federal Transit Administration

FWPCA—Federal Water Pollution Control Act

HOV—High-Occupancy Vehicle

HRS-Hazard Ranking System

HWM—Hazardous Waste Management Program

ISTEA—Intermodal Surface Transportation Efficiency Act

MOU-Memorandum of Understanding

3. Protection of wetlands pursuant to Executive Order No. 11990, 42 U.S.C. 4321 note;

4. Evaluation of flood hazards in floodplains in accordance with Executive Order 11988, 42 U.S.C. 4321 note;

5. Assurance of project consistency with the approved State management program developed pursuant to the requirements of the Coastal Zone Management Act of 1972, as amended, 16 U.S.C. 1451 *et seq.*;

6. Conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended, 42 U.S.C. 7401 *et seq.*;

7. Protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, 42 U.S.C. 300h *et seq.*; and

8. Protection of Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 *et seq.*

⁸ Third Party Contracts, and Subgrants exceeding \$100,000, must have provision requiring compliance with the following acts and have requirements to report the use of facilities considered to be placed on EPA's "List of Violating Facilities," must refrain from using violating facilities, report violations to FTA and the Regional EPA Office, and comply with the inspection and other requirements of:

1. Section 114 of the Clean Air Act, as amended, 42 U.S.C. \$ 7414; and

2. Section 308 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1318.

 $^{^1}$ See Federal Transit Administration (FTA) Legislation and Law Web site,

MPO—Metropolitan Planning Organization

NAAQS—National Ambient Air Quality Standards

NCP-National Consistency Plan

NEPA—National Environmental Policy Act of 1969

NHPA—National Historic Preservation Act

NHRP—National Hazardous Response Plan

NPDES—National Pollutant Discharge Elimination System

NPL—National Priorities List

NRC—National Response Center

PCB—Polychlorinated Biphenyl

PRP—Potentially Responsible Party

PSD—Prevention of Significant Deterioration

RI/FS—Remedial Investigation and Feasibility Study

RCRA—Resource Conservation and Recovery Act of 1976

ROD—Record of Decision

RTP—Regional Transportation Plan

SARA—Superfund Amendments and Reauthorization Act

SHPO—State Historic Preservation Officer

SIP—State Implementation Plan

SOV—Single-Occupancy Vehicle

STP—Surface Transportation Program

STIP—State Transportation Improvement Program

TEA-21—Transportation Equity Act for the 21st Century

TIGGER—Transit Investments for Greenhouse Gas and Energy Reduction

TIP—Transportation Improvement Program TCM—Transportation Control Measure TMA—Transportation Management Areas TSCA—Toxic Substances Control Act TSD—Treatment, Storage, and Disposal Facilities UAO—The Unilateral Administrative Order

UIC-Underground Injection Control Program

VMT—Vehicle Miles Traveled

Environmental law is sometimes best understood in factual context. Also, to assist the reader, two case studies in the areas of transportation impacts on air and surface pollution are presented below—metropolitan Atanta's failure to comply with air quality obligations, and ground contamination at Paoli Rail Yards.

B. THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

Comprehensive federal environmental regulation began with the National Environmental Policy Act of 1969 (NEPA)⁹ (signed into law on January 1, 1970), which required that an environmental assessment $(EA)^{10}$ or an environmental impact statement $(EIS)^{11}$ be

prepared, the latter for any "major federal action significantly affecting the quality of the human environment."12 The EA determines whether potential impacts are significant, explores alternatives and mitigation measures, and provides essential information as to whether an EIS must be prepared.¹³ The EA focuses attention on potential mitigation measures during the planning process, at a time when they can be incorporated without significant disruption and at lower cost.¹⁴ If the agency concludes that there are no significant adverse environmental impacts, or that with appropriate prevention or mitigation efforts they will be minimized, it issues a "finding of no significant impact" (FONSI).15 If, however, the agency concludes the impacts are significant, it prepares an EIS.¹⁶ The EIS must include an assessment of the environmental impacts, evaluate reasonable alternatives, and suggest appropriate mitigation measures.¹⁷ The environmental

¹¹ See, e.g., Preparation of Environmental Impact Statement of North Shore Transit Improvements Between Revere and Salem, MA., 67 Fed. Reg. 10796 (Mar. 8, 2002).

 12 The EIS must include an assessment of the environmental impacts, evaluate reasonable alternatives, and suggest appropriate mitigation measures. 49 U.S.C. § 4332(c). It must review such issues as the impact of the project on noise, air quality, water quality, endangered species, wetlands, and flood plains. However, the thrust of the statute is process and not substantive regulation. *See* Joint FHWA/FTA regulations, Environmental Impact and Related Procedures, 23 C.F.R. 771 and 49 C.F.R. 622.

¹³ See 23 C.F.R. § 771.

¹⁴ 23 C.F.R. § 771.119(b).

15 23 C.F.R. § 771.131.

¹⁶ 23 C.F.R. pt. 1420 (1999); 23 C.F.R. §§ 771.115, 771.125 (1999); 40 C.F.R. § 1508.27. *See also* Statewide Transportation Planning: Metropolitan Transportation Planning, 65 Fed. Reg. 33,922 (May 25, 2000).

¹⁷ 42 U.S.C. § 4332(c). The environmental effects of proposed transit projects must be documented and environmental protection must be considered before a decision can be made to proceed with a project. 42 U.S.C. 4321. Where adverse environmental effects are likely to result, alternatives must be considered to avoid those effects. If there is no feasible and prudent alternative, all reasonable steps must be taken to minimize those effects. 49 U.S.C. § 5324(b)(3)(iii), 23 C.F.R. pt. 771, Environmental Impact & Related Procedures, 49 U.S.C. § 5324(b), Economic, Social, and Environmental Interests (formerly § 14 of the Federal Transit Act). Mitigation of Adverse Environmental Effects—49 U.S.C. § 5324(b), 23 C.F.R. pt. 771, 49 C.F.R. pt. 622. However, the U.S. Supreme Court has held that

NEPA does not impose a substantive duty on agencies to mitigate adverse environmental effects or to include in each EIS a fully developed mitigation plan.... [I]t is well settled that NEPA itself does not impose substantive duties mandating particular results, but simply prescribes the necessary process for preventing uninformed—rather than unwise—agency action.... [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 mitigation plan before the agency can act.

Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 333 108 S. Ct. 1835, 104 L. Ed. 2d 351(1989).

⁹ 49 U.S.C. § 4331 et seq.

¹⁰ See, e.g., Environmental Impact Statement for the Baltimore-Washington Maglev Proposal, 66 Fed. Reg. 37721 (July 19, 2001) for an example of how this arises in the transit context.

impacts must be recognized, summarized, and where appropriate, monitored.¹⁸ The EIS must review such issues as the impact of the project on noise, air quality, water quality, endangered species, wetlands, and flood plains. It must also be prepared with the required engineering design studies necessary to complete the document.¹⁹

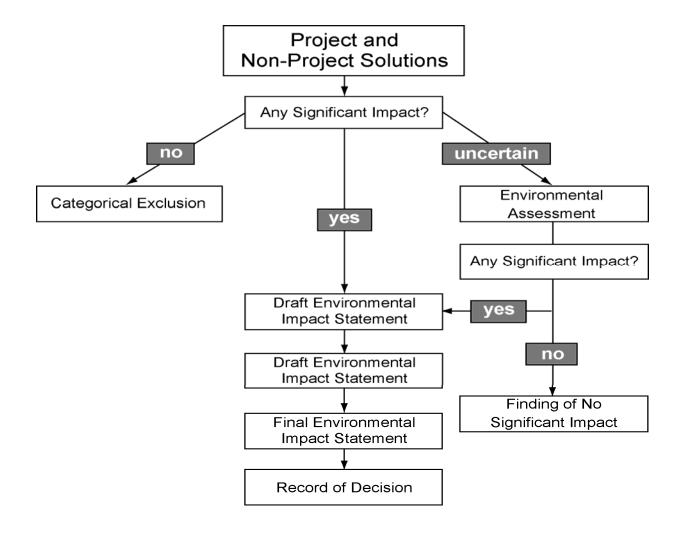
NEPA requires that "all agencies of the Federal Government shall...include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on...the environmental impact of the proposed action."²⁰ The regulations provide that "agencies shall integrate the NEPA process with other planning at the earliest possible time." Although "federal agencies are encouraged to begin preparation of such assessments or statements earlier, preferably jointly with applicable State or local agencies," an environmental review is not required until the federal agency receives an application.²¹

¹⁸ FHWA/FTA regulations state "Management and Monitoring Systems," 23 C.F.R. pt. 500 (1999) and 49 C.F.R. pt. 614. RICHARD CHRISTOPHER & MARGARET HINES, ENFORCEMENT OF ENVIRONMENTAL MITIGATION COMMITMENTS IN TRANSPORTATION PROJECTS: A SURVEY OF FEDERAL AND STATE PRACTICE 3 (National Cooperative Highway Research Program, Legal Research Digest 42, Transportation Research Board, 1999).

¹⁹ See, e.g., Final Environmental Impact Statement: Denver, Arapahoe, and Douglas Counties, 64 Fed. Reg. 72,139 (Dec. 23, 1999).

²⁰ 42 U.S.C. § 4332(C)(1). The Council on Environmental Quality has issued regulations to assist in the implementation of NEPA. See 42 U.S.C. § 4332; 40 C.F.R. §§ 1501.2, 1502.5.

²¹ 40 C.F.R. § 1502.5(b). *See* Ardmore Coalition v. Lower Merion Township, 419 F. Supp. 2d 663 (E.D. Pa. 2005) (until an application has been submitted to the FTA, an environmental review is not required).



The thrust of the statute is process; there is no mandatory obligation to implement mitigation measures, even if they are feasible.²² However, the FHWA/FTA policy is that "measures necessary to mitigate adverse impacts be incorporated" into the project.²³ Mitigation is also important to gain public acceptance for building transit facilities. Moreover, as noted below (in § 3.030), Congress has explicitly mandated measures for protection of public parks, recreation areas, wildlife and waterfowl refuge, and historical sites.²⁴

NEPA was among the first major environmental laws passed by Congress. In order to ensure that appropriate consideration is given to the environmental impacts of major federal actions, NEPA mandates that all federal agencies (including the Department of Transportation) comply with certain procedures before taking actions that will affect the environment.²⁵ NEPA was enacted 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....²²⁶

Federal transportation projects must comply with NEPA requirements to receive federal transportation funds. NEPA review is the process by which federal transportation agencies consider the potential environmental effects of proposed transportation projects.²⁷ Through the NEPA process, the FHWA and the FTA evaluate a transportation project's compliance with the many single-purpose federal environmental statutes, such as the Clean Water Act, the Endangered Species Act, and the National Historic Preservation Act. This "one-stop" review process is part of the Department of Transportation's attempts to streamline environmental review.

NEPA has three main sections. The first sets forth a series of goals and establishes the policy of the federal government "to use all practicable means and measures...to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans." $^{\rm 28}$

The second section of NEPA requires all federal agencies to prepare a detailed statement, commonly known as an EIS, for any proposed major federal action significantly affecting the quality of the human environment.²⁹ The EIS provides a thorough evaluation of potential environmental effects of a proposed project.³⁰ The EIS requirement allows the federal agencies to gather information on potential environmental impacts in a single document. The EIS constitutes a discussion of all relative environmental impacts of a proposed project, which shows that the agency has given all pertinent environmental matters a "hard look" and has made a "good faith, objective, and reasonable presentation of the subject areas mandated by NEPA."³¹

The EIS includes consideration of (1) the environmental impact of the proposed action, (2) any adverse environmental affects that cannot be avoided should the proposal be implemented, (3) alternatives to the proposed action (including a "no action" alternative),³² (4) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and (5) any irreversible and irretrievable commitments of resources that could be

³¹ See Environmental Defense Fund, Inc. v. Andrus, 619 F.2d 1368, 1375 (10th Cir. 1980), quoting from Manygoats v. Kleppe, 558 F.2d 556, 560 (10th Cir. 1977).

³² A "no-action" Alternative typically serves as a baseline for environmental analysis, and includes the existing transit and highway infrastructure and all projects contained in the region's TIP. See 64 Fed. Reg. 72,139 (Dec. 23, 1999). Though NEPA does not require consideration of any specific alternative other than "no action," the FHWA/FTA calls for evaluation of "alternative courses of action ... in the best overall public interest based upon a balanced consideration of the need for safe and efficient transportation...." 23 C.F.R. § 771.105(b). As a practical matter, FHWA and FTA carry out this rule by calling for a reasonable range of alternatives in NEPA documents with respect to both mode (e.g., highway or transit), and alignment. Moreover, insofar as major capital investment ("new starts") projects in the FTA capital program, the FTA new starts rule requires an examination of a "baseline alternative" in the NEPA document. A "baseline alternative" is one that features "transit improvements lower in cost than the new start [project] which results in a better ratio of measures of transit mobility compared to cost than the no build alternative." 49 C.F.R. §§ 611.5, 611.7. The "new starts" process is described in greater detail in Section 4.

²² See Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227, 100 S. Ct. 497, 498, 62 L. Ed 2d 433 (1980).

 $^{^{23}}$ 23 C.F.R. § 771.105(d). For a more recent review of NEPA and how the EIS process works in a transportation context, see Conservation Law Foundation v. FHWA, 630 F. Supp. 2d 183 (D. N.H. 2007).

^{24 49} U.S.C. § 303; 23 C.F.R. § 771.135.

 ²⁵ See Associations Working for Aurora's Residential Env't
 v. Colo. Dep't of Transp., 153 F.3d 1122, 1126 (10th Cir. 1998).
 ²⁶ 42 U.S.C. § 4321.

²⁷ See, e.g., Neighborhood Ass'n of the Back Bay, Inc. v. Federal Transit Admin., 463 F.3d 50 (1st Cir. 2006); Wood v. Mass. Dep't of Transp., 2013 U.S. Dist. LEXIS 108830 (D. Mass. 2013).

^{28 42} U.S.C. § 4331(a).

^{29 42} U.S.C. § 4332 .

³⁰ Under NEPA regulations, "effects" includes both direct and indirect effects, including growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems. Effects include ecological, aesthetic, historic, cultural, economic, social, or health ones and may include beneficial and detrimental effects. 40 C.F.R. § 1508.8.

involved in the proposed action should it be implemented. $^{\rm 33}$

An EIS is only required when there is "major federal action" expected to have a significant effect on the environment. If it is not clear that a proposed project will have a significant effect, a less comprehensive environmental analysis known as an EA may be prepared.³⁴ An EA can either provide a basis for a FONSI or it may lead to the conclusion that the project will have a significant effect on the environment, in which case an EIS needs to be prepared before the project goes forward.³⁵

Sometimes, however, the degree of community concern and controversy surrounding the project alone may make an EIS the best option, even if it is not technically required.

The Council on Environmental Quality (CEQ) regulations that govern the preparation of EIS's require consideration and disclosure of "appropriate mitigation measures" and "means to mitigate the adverse environmental impacts."³⁶ In transportation projects, five methods may be used to avoid, reduce, or compensate for the adverse environmental effects for the location, construction, or operation of transit facilities: (1) location modification; (2) design modification; (3) construction measures; (4) right-of-way measures; and (5) replacement land.³⁷

The third section of NEPA establishes a central agency, the CEQ, to coordinate agencies' compliance with NEPA.³⁸ The CEQ has developed guidelines to aid federal agencies in implementing NEPA.³⁹ The guidelines detail many of the steps in the NEPA process, including identifying when and how to prepare an EIS and describing the method of receiving comments on an EIS, as well as defining many of the terms used in NEPA. The CEQ guidelines also direct agencies to adopt specific guidelines for implementation of NEPA. The CEQ also assists the President of the United States in preparing an annual Environmental Quality Report,40 gathering information on trends in environmental quality,⁴¹ and developing and recommending to the President national policies to foster and promote the improvement of environmental quality.42

The DOT has developed regulations for implementing NEPA for highway and mass transit projects.⁴³

³⁶ 40 C.F.R. §§ 1502.14(f) and 1502.16(h). Specific mitigation findings are also required under Section 4(f) of the Department of Transportation Act, 49 U.S.C. § 303, and the Clean Air Act, 42 U.S.C. § 7410. Colorado Rail Passenger Ass'n v. FTA, 843 F. Supp. 2d 1150 (D. Colo. 2011).

³⁷ CHRISTOPHER & HINES, *supra* note 18, at 3.

- ³⁹ 40 C.F.R. pts. 1500–1517 (1998).
- 40 42 U.S.C § 4344(1).
- ⁴¹ Id. at § 4344(2).
- 42 Id. at § 4344(4).
- 43 23 C.F.R. § 771.109(a)(1).

These regulations only apply to actions where the federal agency exercises sufficient control to condition the permit or project approval. Actions that do not require federal approval are not subject to these regulations. The regulations establish as the policy of the transportation agencies that:

(a) To the fullest extent possible, all environmental investigations, reviews, and consultations be coordinated as a single process, and compliance with all applicable environmental requirements be reflected in the environmental document required by [the] regulation; (b) Alternative courses of action be evaluated and decisions be made in the best overall public interest...; (c) Public involvement and a systematic interdisciplinary approach be essential parts of the development process for proposed action; [and] (d) measures necessary to mitigate adverse impacts be incorporated into the action....⁴⁴

The regulations establish three classes of actions, which prescribe the level of documentation required in the NEPA process.⁴⁵ Class I actions are those projects that significantly affect the environment, and thus require the preparation of an EIS.⁴⁶ The EIS is the "detailed statement" used to analyze environmental impacts and all reasonable alternatives and to evaluate measures necessary to mitigate adverse impacts where they are likely to result from the proposed action.⁴⁷ Examples of actions that normally require an EIS are:

(1) A new controlled access freeway, (2) A highway project of four or more lanes on a new location, (3) New construction or extension of fixed rail transit facilities...[and] (4) New construction or extension of a separate roadway for buses or high occupancy vehicles not located within an existing highway facility.⁴⁸

An EIS is only required when a "major federal action" significantly affects the quality of the human environment.⁴⁹ The CEQ regulations define "major federal action" as "actions with effects that may be major and which are potentially subject to Federal control and responsibility," but really provide little guidance as to what constitutes a "major federal action."⁵⁰

The courts have been more helpful in determining what is or is not a major federal action." In *Macht v. Skinner*,⁵¹ the U.S. Court of Appeals for the District of Columbia held that federal funding for preliminary engineering studies and EIS's for proposed extensions to a light rail project, which was completely state funded, did not constitute "major federal action" within the

^{33 42} U.S.C. § 4332(c).

^{34 40} C.F.R. § 1508.9; 23 C.F.R. § 771.119.

^{35 23} C.F.R. § 771.119(a).

³⁸ 42 U.S.C. §§ 4341–4347 .

^{44 23} C.F.R. § 771.105.

^{45 23} C.F.R. § 771.115.

^{46 23} C.F.R. § 771.115(a).

⁴⁷ See 42 U.S.C. § 4332(C); 40 C.F.R. § 1508.11.

^{48 23} C.F.R. § 771.115.

 $^{^{49}}$ See 42 U.S.C. § 4332(C); See also Sensible Traffic Alternatives and Resources v. FTA, 307 F. Supp. 2d 1149 (D. Hawaii 2004) (city and FTA's motion for summary judgment granted where bus rapid transit system challenged for failure to comply with NEPA and state environmental laws).

^{50 40} C.F.R. § 1508.18.

⁵¹ Macht v. Skinner, 916 F.2d 13, 17 (D.C. Cir. 1990).

meaning of NEPA. The court also held that the issuance of a wetlands permit by the Army Corps of Engineers did not "federalize" the project, subjecting it to the requirements of NEPA, where the Corps had discretion over only a negligible portion of the project.⁵² That the state planned to request a federal UMTA grant to build the extensions did not constitute major federal action because "there is a wide gulf between what a state may want and what the federal government is willing to provide."53 Also, in Save Barton Creek Ass'n. v. Federal Highway Administration,⁵⁴ the court explained that federal involvement requires the "ability to influence or control the outcome in material respects."55 That the state structures a project so as to preserve its eligibility for future federal funding does not render its project a major federal action, and an EIS will not be required until there is a "proposal" for federal funding.⁵⁶

When preparing an EIS, an agency must consider alternatives to the proposed transit project. However, the agency is not required to evaluate any alternatives it in good faith rejects as too remote or impractical, but need only evaluate alternatives that are feasible.⁵⁷ A "no action" alternative must be considered in every EIS; but other than this, there are no specific alternatives that NEPA requires.⁵⁸ In Piedmont Heights Civic Club, Inc., v. Moreland,⁵⁹ the court had to decide whether an agency must consider mass transit as an alternative to building a highway. Piedmont Heights sought an injunction to halt projects to widen Interstate highways around Atlanta, Georgia, because the environmental analysis of the project did not consider the proposed Atlanta Rapid Transit Authority Metropolitan (MARTA) rail system as an alternative to highway expansion.⁶⁰ The court held that, where a mass transit system is already planned and approved, the highway

⁵⁵ Id. at 1134 (quoting from W. RODGERS, ENVIRONMENTAL LAW § 7.6, at 763 (1997)); see also Southwest Williamson County Community Ass'n v. Slater, 67 F. Supp. 2d 875, 884–86 (M.D. Tenn. 1999), where the court held that accepting federal funding for early transportation studies and complying with eligibility requirements for federal funding to maintain the possibility of receiving future funding did not convert a highway project into a major federal action.

⁵⁶ Barton Creek, 950 F 2d. at 1135.

⁵⁷ 40 C.F.R. § 1502.14; *See* St. Paul Branch of the NAACP v. U.S. Dep't of Transp., 764 F. Supp. 2d 1092 (D. Minn. 2011) (EIS prepared for a light rail corridor was deficient in its consideration of lost business revenue as an adverse impact of the construction; EIS was not deficient in its analysis of cumulative impacts of prior projects or the potential displacement of existing businesses and residents due to the gentrification of the area). *See also* Associations Working for Aurora's Residential Env't v. Colo. Dep't of Transp., 153 F.3d 1122, 1130 (10th Cir. 1998).

⁵⁹ 637 F.2d 430, 435–36 (5th Cir. 1981).

 60 *Id*.

agency need not consider mass transit as a formal alternative.⁶¹ However, the agency should consider whether highway expansion is necessary in light of the existing mass transit system.⁶²

EIS's are prepared in two stages, a draft EIS and then a final EIS, and may be supplemented if conditions surrounding the proposed project change substantially.⁶³ Before preparing an EIS, the agency and the project sponsor conduct a scoping process, inviting appropriate federal, state, and local agencies to participate in the determination to be addressed in the EIS. A draft EIS is then prepared that encompasses the identified issues and evaluates all reasonable alternatives to the proposed project. The draft EIS is then circulated for at least 45 days for public comment and review.⁶⁴

After circulation of the draft EIS and consideration of comments received, a final EIS is prepared.⁶⁵ The final EIS discusses comments received and identifies the preferred alternative and evaluates all reasonable alternatives and Executive Orders.⁶⁶ The final EIS should also document compliance with all applicable environmental laws.⁶⁷ A final decision will be made no sooner than 30 days after publication of the final EIS in the Federal Register or 90 days after publication of a notice for the draft EIS, whichever is later.⁶⁸

A draft, final, or supplemental EIS may be supplemented at any time when it is determined that:

(1) Changes to the proposed action would result in significant environmental impacts that were not evaluated in the EIS; or (2) New information or circumstances relevant to the environmental concerns and bearings on the proposed action or its impacts would result in significant environmental impacts not evaluated in the EIS⁶⁰

Class II actions are known as "categorical exclusions" (CE).⁷⁰ These are projects that do not individually or cumulatively have a significant environmental effect and are thus excluded from the requirement to prepare either an EA or EIS. The DOT regulations enumerate 20 CEs.⁷¹ Additional actions that meet the criteria for a

⁶² Id.
⁶³ 40 C.F.R. § 1502.9.
⁶⁴ 23 C.F.R. § 771.123(i).
⁶⁵ 23 C.F.R. § 771.125(a)(1).
⁶⁶ Id.
⁶⁷ Id.
⁶⁸ 23 C.F.R. § 771.127(a).

 69 23 C.F.R. § 771.130(a); See 40 C.F.R. § 1502.9(c)(1); see also Airport Impact Relief, Inc. v. Wykle, 192 F.3d 197, 209–10 (1st Cir. 1999).

⁷⁰ See 23 C.F.R. § 771.115(b). "Categorical exclusion means a category of actions which do not individually or cumulatively have a significant effect on the human environment....and...for which, therefore, neither an environmental assessment nor an environmental impact statement is required." 40 C.F.R. § 1508.4. Examples are set forth in 23 C.F.R. § 771.118.

 71 The following actions meet the criteria for CEs in the CEQ regulation...and normally do not require any further NEPA approvals by the Administration:

⁵² Id. at 18–19.

⁵³ Id. at 16 n.3, 22.

^{54 950} F.2d 1129 (5th Cir. 1992).

⁵⁸ 40 C.F.R. § 1502.14(d).

⁶¹ Id. at 436.

CE may be designated as CE's only after agency approval. 72

Class III actions are those in which the significance of the environmental impact is not clearly established.⁷³ Actions in this class require the preparation of an EA to determine whether the preparation of the more comprehensive EIS is required. If the agency determines at any time in the EA process that the action is likely to have a significant impact on the environment, the regulations direct that an EIS will be required.⁷⁴ If no significant impacts are identified, the administration will issue a revised EA and FONSI.⁷⁵ The FONSI will briefly present the reasons why an action will not have a significant impact on the human environment and for which preparation of an EIS therefore is not required.⁷⁶

The Secretary of Transportation may only approve federal funding for projects that have adequately evaluated potential environmental effects.⁷⁷ Thus, agency

23 C.F.R. § 771.117(c).

staff must review transcripts of hearings to ensure that all parties were given an opportunity to present their views and that the project application discusses the environmental impact and explores alternatives of the proposal. Before approving an application for financial assistance, the Secretary must make written findings that:

(i) an adequate opportunity to present views was given to all parties with a significant economic social or environmental interest; (ii) the preservation and enhancement of the environment, and the interest of the community in which a project is located, were considered; and (iii) no adverse environmental effect is likely to result from the project, or no feasible and prudent alternative to the effect exists and all reasonable steps have been taken to minimize the effect.⁷⁸

Agencies generally have a great deal of discretion to make decisions under NEPA. Courts will only overturn agency decisions in the most rare and extreme circumstances. In Township of Belleville v. Federal Transit Administration,⁷⁹ citizens in Belleville, New Jersey, challenged the FTA's issuance of a FONSI for construction of a storage facility for light rail vehicles. The Newark subway system was modernizing its light rail vehicles to comply with the Americans with Disabilities Act and needed a new facility to house the new vehicles and an extension of the subway line to reach it. The proposed action would be located in the municipalities of Belleville, Bloomfield, and Newark. An EA was prepared and a FONSI was subsequently issued for the project. While citizens of Bloomfield and Newark favored the project, a citizens group in Belleville filed suit arguing that the project would have substantial environmental impacts on the township, and that the FTA should have developed an EIS to evaluate these impacts.⁸⁰ In its decision, the court recognized that the project would have impacts on the township, but that the FTA had analyzed the impacts through an EA, which concluded that the impacts were not significant enough to require an EIS, thus resulting in a FONSI.⁸¹ "Although reasonable minds can disagree over the degree of 'significance' produced by the project, it would be an overreach for [a] Court to interject its own personal value system on the agencies charged with making the appropriate determinations."82

Similarly, in *Council of Commuter Organizations v. Gorsuch*,⁸³ the Second Circuit upheld EPA's tardy approval of New York's undetailed transit improvement program, and the failure of New York to follow its transit improvement program's fare stabilization program. Some suits have also been filed to roll back transit fare

⁽¹⁾ Activities which do not involve or lead directly to construction, such as planning and technical studies; grants for training and research programs: research activities as defined in 23 U.S.C. 307; approval of a unified work program and any findings required in the planning process pursuant to 23 U.S.C. 134; approval of statewide programs under 23 C.F.R. part 630; approval of project concepts under 23 C.F.R. part 476; engineering to define the elements of a proposed action or alternatives so that social, economic, and environmental effects can be assessed; and Federal-aid system revisions which establish classes of highways on the Federal-aid highway system. (2) Approval of utility installations along or across a transportation facility. (3) Construction of bicycle and pedestrian lanes paths and facilities. (4) Activities included in the State's "highway safety plan" under 23 U.S.C. § 402. (5) Transfer of Federal lands pursuant to 23 U.S.C. 317 when the subsequent action is not an FHWA action. (6) The installation of noise barriers or alteration to existing publicly owned buildings to provide for noise reduction. (7) Landscaping. (8) Installation of fencing, signs, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur. (9) Emergency repairs under 23 U.S.C. 125. (10) Acquisition of scenic easements. (11) Determination of payback under 23 C.F.R. part 480 for property previously acquired with Federal-aid participation. (12) Improvements to existing rest areas and truck weigh stations. (13) Ridesharing activities. (14) Bus and rail car rehabilitation. (15) Alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons. (16) Program administration, technical assistance activities, and operating assistance to transit authorities to continue existing service or increase service to meet routine changes in demand. (17) The purchase of vehicles by the applicant where the use of these vehicles can be accommodated by existing facilities or by new facilities which themselves are within a [categorical exclusion]. (18) Track and railhead maintenance and improvements when carried out within the existing right-of-way. (19) Purchase and installation of operating or maintenance equipment to be located within the transit facility and with no significant impacts off the site. (20) Promulgation of rules, regulations, and directives.

^{72 23} C.F.R. § 771.117(d).

^{73 23} C.F.R. § 771.115(c).

^{74 23} C.F.R. § 771.119.

^{75 23} C.F.R. § 771.121(a).

^{76 40} C.F.R. § 1508.13; 23 C.F.R. § 771.121.

^{77 49} U.S.C.A. § 5324(b).

⁷⁸ 49 U.S.C. § 5324.

⁷⁹ 30 F. Supp. 2d 782 (D. N.J. 1998).

 $^{^{80}}$ *Id*.

⁸¹ *Id*. at 804.

⁸² Id. at 804.

^{83 683} F.2d 648, 659 (2d Cir. 1982).

increases on clean air grounds.⁸⁴ Injunctions have been sought against highway projects⁸⁵ and bridge construction.⁸⁶ Citizen groups have objected to a variety of projects, including subways.⁸⁷

However, an agency may not divide a project into smaller parts, each with less significant impacts, in order to avoid compliance with NEPA.88 A rule against 'segmentation' has been developed to ensure that interrelated projects, the overall effect of which is environmentally significant, not be fractionalized into smaller, less significant actions. In Taxpayers Watchdog, Inc. v. Stanley⁸⁹ a taxpayers' association sought to enjoin the FTA from disbursing federal funds for a construction of a 4-mile rail system in Los Angeles, claiming that the project had been improperly segmented. An early proposal for the rail system had anticipated the construction of an 18-mile rail system, but plans for the more extensive system were set aside due to financial considerations. However, the agency decided to build the first 4 miles of the rail project, finding this would be preferable to not building a rail system at all. Certain taxpayers sought an injunction claiming that the 4-mile system was not an independent project but was part of the larger plan for a more extensive rail system and thus, the smaller system had been improperly segmented. The court articulated four factors that need to be considered when determining whether a project has been improperly segmented: whether the proposed segment (1) has logical termini, (2) has substantial independent utility, (3) does not foreclose the opportunity to consider alternatives, and (4) does not irretrievably commit federal funds for closely related projects.⁹⁰ After considering these factors, the court held that the project had not been improperly segmented and that the agency needed only to consider environmental impacts of the 4-mile rail system rather than potential impacts of the more extensive rail system that may be built in the future.⁹¹

The federal agency (FHWA or FTA) and the applicant (state DOT or transit agency) manage preparation of the NEPA environmental review process.⁹² MPOs have the primary responsibility for transportation planning, into which the NEPA process will be inte-

⁸⁶ See, e.g., Citizens for Mass Transit, Inc. v. Adams, 492 F. Supp. 304 (E.D. La. 1980).

⁸⁷ See, e.g., Phila. Council of Neighborhood Orgs. v. Coleman, 437 F. Supp. 1341 (E.D. Pa. 1977).

⁸⁸ The Clairton Sportsmen's Club v. Pa. Turnpike Comm'n, 882 F. Supp. 455, 470 (W.D. Pa. 1995); Town of Huntington v. Marsh, 859 F.2d 1134, 1140–43 (2d Cir. 1988).

90 Id. at 298–9.

⁹¹ Id. at 300.

92 23 C.F.R. § 771.109(c).

grated.⁹³ MPOs are required to develop both a longrange transportation plan and a short-term TIP for metropolitan areas. The transportation plan is a 20year plan, which identifies long- and short-term actions to be carried out by the MPO in the development of an efficient intermodal transportation system. The TIP is short-term, covering at least 3 years, which prioritizes projects to be carried out during the 3-year period. The TIP must be updated at least every 2 years. The NEPA process focuses on projects after they have been included in the transportation plan and TIP.

C. THE INTERSECTION OF NEPA AND TRANSPORTATION PLANNING

The metropolitan and state transportation planning processes are discussed in greater detail in Section 2. This section introduced readers to the fact that SAFETEA-LU⁹⁴ established new procedures for the coordination and integration of environmental and transportation planning.

The MPOs and state DOTs must consider environmental factors in developing their transportation plans. SAFETEA-LU strengthened the "streamlining" provisions of TEA-21 to make the NEPA process more efficient.95 This effort was enhanced by MAP-21, which allows more projects to be categorically excluded from environmental review. Moreover, it imposes a 4-year review deadline enforced with financial penalties.⁹⁶ The joint implementing regulations of FHWA and FTA adopted in 2009 provide guidance designed to better integrate the environmental and transportation planning processes.⁹⁷ Compliance with the transportation conformity provisions of the Clean Air Act now is performed almost entirely as part of the transportation planning process. Moreover, the rule created certain new categorical exclusions (CE)98 allowing proposed

⁹⁴ Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy For Users (SAFETEA-LU), Pub. L. No. 109–59, 119 Stat. 1144 (2005) available at: http://www.gpo.gov/fdsys/pkg/PLAW-109publ59/pdf/PLAW-

109publ59.pdf.

⁹⁵ Adam Lovelady, MPOs and the Integration of Transportation and Land Use Planning, 27 VA. ENVTL. L.J. 275, 302, 311 (2009); Jenna Musselman, SAFETEA-LU's Environmental Streamlining: Missing Opportunities for Meaningful Reform, 33 ECOLOGY L.Q. 825, 839–40, 847 (2006).

 96 Moving Ahead for Progress in the 21st Century Act (MAP-21), Pub. L. No. 112-141, 126 Stat. 405 (2012).

97 See 23 C.F.R. pt. 450.

⁹⁸ See 23 C.F.R. § 771.118 for FTA's definition of what types of activities are eligible for "categorical exclusion" from environmental review. Proposed regulations to implement MAP-21 in this area were announced for comment in early 2013. Environmental Impact and Related Procedures, 78 Fed. Reg. 13,609 (Feb. 28, 2013); 78 Fed. Reg. 11, 593 (Feb. 19, 2013).

 $^{^{84}}$ See, e.g., Friends of the Earth v. Carey, 535 F.2d 165 (2d Cir. 1976).

⁸⁵ See, e.g., Southwest Williamson County Community Ass'n v. Slater, 67 F. Supp. 2d 875 (M.D. Tenn. 1999); Conservation Law Found. v. Federal Highway Admin., 827 F. Supp. 871 (D. R.I. 1993).

⁸⁹ 819 F.2d 294, 297 (D.C. Cir. 1987).

⁹³ MPOs have jurisdiction over transit and highway transportation projects, but not over airports, seaports, or interstate railroads. Environmental Defense Fund v. EPA, 82 F.3d 451, 461–62 (D.C. Cir. 1996).

actions to proceed without an environmental assessment (EA) or environmental impact statements.⁹⁹

SAFETEA-LU included numerous changes that attempt to streamline the environmental review process. A new category of "participating agencies"¹⁰⁰ has been added, to permit a wider range of state, local, and tribal agencies to have a formal role in the environmental process. As early as practicable, DOT is to provide an opportunity for a range of alternatives to be considered for a project. If any issue that could potentially delay the process cannot be resolved within 30 days, DOT must notify Congress.¹⁰¹

After entering into an MOU with DOT, a state may assume responsibility for CE. DOT also is required to establish categorical exclusions for activities that support the deployment of intelligent transportation infrastructure and systems from the requirements for the preparation of an EA or EIS under NEPA.¹⁰² A pilot program was established under SAFETEA-LU pursuant to which DOT could permit as many as five states to assume environmental responsibilities [including NEPA and Section 4(f)] for Recreational Trails and Transportation Enhancement projects.¹⁰³

MAP-21 expanded the delegation of authority under NEPA to all states (from the five-state pilot project) and also expanded it to include rail, transit, and multimodal projects.¹⁰⁴ It is anticipated that more projects would be categorically excluded from review. Moreover, a 4-year review deadline is enforced with financial penalties.¹⁰⁵ A major objective of MAP-21 is to expedite environmental review.

SAFETEA-LU also established a new 180-day statute of limitations for appeals of transportation plans. 106

MAP-21 requires 107 the Secretary of Transportation to promulgate regulations designating two types of ac-

 $http://www.fta.dot.gov/documents/FR_Doc_E9-6144.htm.$

 101 SAFETEA-LU $\$ 6002; 23 U.S.C. $\$ 139(h)(4)(B); see also MAP-21 $\$ 1323.

¹⁰² SAFTEA-LU §§ 6002, 6010; 23 U.S.C. § 512. An EA and EIS may be required under Section 102 of the National Environmental Policy Act of 1969. 42 U.S.C. § 4332.

¹⁰³ SAFETEA-LU § 6004; 23 U.S.C. § 325; 49 U.S.C. § 5204.
 74 Fed. Reg. 12517 (Mar. 24, 2009).

¹⁰⁵ MAP-21 § 1301.

¹⁰⁶ The Safe, Accountable, Flexible, Efficient

Transportation Equity Act: A Legacy for Users, 6002(i), Pub. L. No. 109-59, 119 Stat. 1144, 186523 U.S.C. 139(l)(1). See Colorado Rail Passenger Ass'n v. FTA, 2010 U.S. Dist. LEXIS 137754 (D. Col. 2010).

tions as categorically excluded 108 from the required preparation of an EA or $\mathrm{EIS}.^{109}$

1. Any project within an existing operational right-of-way;¹¹⁰ and

2. Any project that receives less than \$5 million of federal funds or with a total estimated cost of not more than \$30 million and federal funds comprising less than 15 percent of the total estimated project cost.¹¹¹

In 2013, FTA and FHWA issued joint regulations designed to streamline the environmental review process.¹¹² The regulations identify two types of CE: Activities that fall within the listed CE set forth in 23 C.F.R. § 771.117(c),¹¹³ and documented CE, as set forth in 23 C.F.R. § 771.117(d), which require additional documentation in order to establish that the proposed activity meets the criteria for a CE.¹¹⁴

D. PUBLIC PARK AND RECREATION LANDS, WILDLIFE AND WATERFOWL REFUGES, AND HISTORICAL SITES

In response to the public's interest in preserving nature and history, Congress enacted Section 4(f) of the Department of Transportation Act.¹¹⁵ Transportation projects that receive any form of federal approval or funding must comply with Section 4(f).¹¹⁶ Section 4(f)

¹⁰⁷ Section 1318 of MAP-21 required the DOT Secretary to promulgate a rulemaking to propose new categorial exclusions within 120 days of its enactment.

¹¹² See Environmental Impact and Related Procedures, 78 Fed. Reg. 8964 (Feb. 7, 2013). 23 C.F.R. § 771.118.

¹¹³ Categorical exclusions

do not induce significant impacts to planned growth or land use for the area; do not require the relocation of significant numbers of people; do not have a significant impact on any natural, cultural, recreational, historic or other resource; do not involve significant air, noise, or water quality impacts; do not have significant impacts on travel patterns; or do not otherwise, either individually or cumulatively, have any significant environmental impacts.

¹¹⁴ These activities include "construction of new bus storage and maintenance facilities in areas used predominately for industrial or transportation purposes where such construction is not inconsistent with existing zoning, or certain rehabilitation or reconstruction of existing rail and bus buildings." Environmental Justice Policy Guidance for Federal Transit Administration Recipients, FTA Circular 4703.1 (Aug. 15, 2012), at 51.

¹¹⁵ 49 U.S.C. § 303 (§ 4(f) of the DOT Act); 23 U.S.C. § 138. See also Barbara Miller, Department of Transportation's Section 4(f): Paving the Way Toward Preservation, 36 AM. U. L. REV. 633, 638–39 (1987).

 116 49 U.S.C. 303 (Section 4(f) of the DOT Act); 23 U.S.C. 138.

⁹⁹ Sections 1314–1319 of MAP-21 established procedures for promulgating categorical exclusions. In 2009, FHWA and FTA issued a final rule—49 C.F.R. pt. 622— to make changes mandated by SAFETEA-LU not then adequately reflected in the then-existing FHWA–FTA joint National Environmental Policy Act (NEPA) procedures. In addition, the rule created certain new categorical exclusions (CE) allowing proposed actions to proceed without an EA or EIS. 74 Fed. Reg. 12,518 (Mar. 24, 2009), also located at:

¹⁰⁰ SAFETEA-LU § 6002; 23 U.S.C. § 139(d).

^{104 49} U.S.C. § 5323(c).

¹⁰⁸ 23 C.F.R. § 771.117(c).

¹⁰⁹ 40 C.F.R. § 1508.4.

¹¹⁰ MAP-21 § 1316.

¹¹¹ MAP-21 § 1317.

²³ C.F.R. § 771.117(a).

requires that transportation plans and programs include measures to maintain or enhance public parks, recreation areas, wildlife and waterfowl refuges, and historical sites that will be crossed by transportation activities or facilities.¹¹⁷ Specifically, Section 4(f) provides:

[T]he Secretary may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if (1) there is no prudent and feasible alternative to using that land; and (2) the program or project includes all possible planning to minimizeharm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.¹¹⁸

However, Section 4(f) has three exceptions: it does not apply if (1) both transportation and recreational uses were jointly planned (the "joint planning exception"); (2) the recreational use is only temporary (the "temporary use exception"); or (3) the property is subject to multiple uses and was not officially designated as Section 4(f) property (the "multiple use exception").¹¹⁹ However, the preservation goals of Section 4(f) often conflict with the government's desire to build and maintain transportation infrastructure.¹²⁰

The trigger for Section 4(f) is when federally-funded projects "use" public or private historic sites or public parkland.¹²¹ Once this threshold is met, the Secretary of Transportation may only approve transportation projects if certain conditions are met.¹²² First, the Secretary must be satisfied that there is no prudent or feasible alternative to using that land. Second, the project must also include all possible planning to minimize harm to the land resulting from the use.¹²³ To determine whether an alternative site minimizes harm, the Secretary must balance and assess the harm to the his-

 $^{\rm 120}\,See$ Miller, supra note 115, at 633.

 121 Id. at 639. The circuit courts have given "use" an expansive reading and held it to include land affected by "noise, pollution, visual intrusion, and increased traffic." Id. at 638.

122 49 U.S.C. § 303(c).

¹²³ Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402, 411, 91 S. Ct. 814, 28 L. Ed. 2d 136 (1971); Adler v. Lewis, 675 F.2d 1085, 1093–94 (9th Cir. 1982). CHRISTOPHER & HINES, *supra* note 18, at 10–11.

toric site or park caused by each alternative and choose the least harmful alternative. $^{\rm 124}$

These requirements apply to the permanent use of land. Certain temporary uses do not fall within the ambit of 4(f), such as minor work not adverse to the statute's preservationist purposes. However, constructive uses trigger its requirements. A constructive use may occur when impacts due to proximity of the transportation project substantially impair the activities, features, or attributes of the protected resource.¹²⁵

 124 Concerned Citizens Alliance, Inc. v. Slater, 176 F.3d 686, 694 (3d Cir. 1999).

 125 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 of the resource are substantially diminished.

23 C.F.R. § 771.135(p)(2). A constructive use occurs when:

(i) The projected noise level increase attributable to the project substantially interferes with the use and enjoyment of a noise-sensitive facility of a resource protected by section 4(f)...;
(ii) The proximity of the proposed project substantially impairs esthetic features or attributes of a resource protected by section 4(f)...;

(iii) The project results in a restriction on access which substantially diminishes the utility of a significant publicly owned park, recreation area, or a historic site;

(iv) The vibration impact from operation of the project substantially impairs the use of a section 4(f) resource...; or

(v) The ecological intrusion of the project substantially diminishes the value of wildlife habitat in a wildlife or waterfowl refuge adjacent to the project....

23 C.F.R. § 771.135(p)(4). A constructive use does not occur when:

(i) Compliance with the requirements of section 106 of the National Historic Preservation Act and 36 C.F.R. part 800 for proximity impacts of the proposed action, on a site listed on or eligible for the National Register of Historic Places, results in an agreement of "no effect" or "no adverse effect";

(ii) The projected traffic noise levels of the proposed highway project do not exceed [applicable] noise abatement critieria...;(iii) The projected noise levels...when compared with the projected noise levels if the project is not built, is barely perceptible

(3 dBA or less);

(iv)...[A] governmental agency's right-of-way acquisition, an applicant's adoption of project location, or the Administration approval of a final environmental document, established the location for a proposed transportation project before the designation, establishment, or change in the significance of the resource...;

 $(v)...[T]he\ proposed\ transportation\ project\ and\ the\ resource\ are\ concurrently\ planned\ or\ developed...;$

(vi) Overall (combined) proximity impacts caused by a proposed project do not substantially impair the activities, features, or attributes that qualify a resource for protection under section 4(f);

(vii) Proximity impacts will be mitigated to a condition equivalent to, or better than, that which would occur under a no-build scenario;

¹¹⁷ 49 U.S.C. § 303.

¹¹⁸ 49 U.S.C. § 303(c).

¹¹⁹ See 23 C.F.R. § 773.13. The joint planning exception is discussed in Tahoe Tavern Property Owners Ass'n v. United States Forest Service, 2007 U.S. Dist. LEXIS 35935 (E.D. Cal. 2007) (FTA and US Forest Service did not act arbitrarily or capriciously in determining that the joint planning exception to Section 4(f) applied).

Compliance with Section 4(f) can result in additional costs and time to transportation projects. However, it is a valuable means to achieve preservation and thoughtful consideration of transportation alternatives.¹²⁶

SAFETEA-LU imposes changes in Section 4(f). SAFETEA-LU gave the DOT Secretary some flexibility to allow an exemption from 4(f) requirements if a program or project will have a "de minimis" impact on the area—i.e., there are no adverse effects from the project, and the State Historic Preservation Officer or other officials with jurisdiction over the property concur.¹²⁷

MAP-21 deleted several policies from 49 U.S.C. § 5301, including a requirement that when planning, designing, and carrying out a public transportation capital project with assistance from the U.S. government, special effort would be made to preserve the natural beauty of the countryside, public parks and recreation lands, wildlife and waterfowl refuges, and important historical and cultural assets.

E. AIR QUALITY

1. Evolution of Federal Air Pollution Control

Statutes are sometimes like barnacles. Barnacles tend to grow on the legs of a pier within months after it is built. New barnacles eventually grow on top of the older, earlier layers, only partially covering them up. So it is with legislation, which tends to address a problem in an evolutionary, growing, and changing manner. This section provides a historical overview of federal air pollution legislation.¹²⁸

The Air Pollution Control Act of 1955 was an early attempt of the federal government to address the air pollution problem.¹²⁹ While recognizing that states have the primary responsibility for controlling air pollution, the Act gave the federal government responsibility for some research and technical assistance. The Act authorized the Secretary of Health, Education, and Wel-

(viii) Change in accessibility will not substantially diminish the utilization of the section 4(f) resource; or

23 C.F.R. § 771.135(p)(5). See Environmental Impact and Related Procedures: Constructive Use, 56 Fed. Reg. 13,269 (Apr. 1, 1991).

¹²⁶ Miller, *supra* note 115, at 633, 667.

 127 SAFETEA-LU §§ 6007, 6009; 23 U.S.C. §§ 103(c), 138. 23 C.F.R. §§ 774.5(b)(2), 774.17. See Section 4(f) Policy Paper, at http://www.environment.fhwa.dot.gov/4f/4fpolicy.asp; and Federal Highway Administration, A Summary of Highway Provisions in SAFETEA-LU (Aug. 25, 2005), available at https://www.fhwa.dot.gov/safetealu/summary.htm .

 128 An excellent summary of federal clean air legislation can be found on the EPA Web site at

fare (HEW) to undertake research programs for air pollution control in an attempt to come to a better understanding of the causes and effects of air pollution. The Act also allowed the Surgeon General to investigate local pollution problems upon the request of any state or local government.

The Clean Air Act of 1963 was the first federal regulatory program to control air pollution.¹³⁰ This Act expanded the research role of the federal government and authorized the Secretary of HEW to develop air quality criteria based on scientific studies. The Secretary was also authorized to convene conferences of government officials where interstate pollution threatened to endanger health or welfare. However, only a court order could lead to actual abatement and the issuance of a cease and desist order; thus the Act was not very effective in controlling air pollution.

In 1967, Congress introduced a more comprehensive scheme for controlling air pollution in the Air Quality Act.¹³¹ It required HEW to designate "air quality control regions." The statute also mandated that states adopt ambient air quality standards within the control regions and develop implementation plans, subject to HEW approval, to meet these standards. The program did not provide for any national air pollution control standards and the only enforcement mechanism remained the conference procedure introduced in the Clean Air Act of 1963. The Air Quality Act of 1967 required HEW to list air pollutants and publish air quality criteria for various regions. Under it, the EPA developed National Ambient Air Quality Standards (NAAQS) for six pollutants: CO, sulfur dioxide, NOx, ozone, PM10, and lead.¹³² But it left to individual states the requirement to establish specific emission goals by designating ambient air quality standards (AAQS).

In 1970, Congress enacted the first of what would be several major environmental bills, which would require transportation planning focused on arresting the problem of automobile air pollution.¹³³ Environmental issues became a strong focus of transportation planning. (Today, in nonattainment areas, air quality issues have become among the dominant concerns of metropolitan transportation planning.) A long-term commitment of

¹³¹ Air Quality Act of 1967, Pub. L. No. 90-148, 81 Stat. 485.

⁽ix) Vibration levels from project construction activities are mitigated, through advance planning and monitoring of the activities, to levels that do not cause a substantial impairment of the section 4(f) resource.

http://www.epa.gov/air/caa/caa_history.html.

 $^{^{129}}$ Air Pollution Control Act of 1955, Pub. L. No. 84-159, 69 Stat. 322.

 $^{^{130}}$ Clean Air Act of 1963, Pub. L. No. 88-206, 77 Stat. 392, codified as amended at 42 U.S.C. $\$ 1857–1857l (1964).

 $^{^{132}}$ The Lead-Based Paint Poisoning Prevention Act, Pub. L. No. 91-695, 84 Stat. 2078 (1971), codified as amended at 42 U.S.C. §§ 4821 *et seq.*, prohibits the use of lead-based paint in construction or rehabilitation of residence structures.

¹³³ Various regulations have been promulgated to deal with the problem. These include U.S. EPA regulations: "Control of Air Pollution from Mobile Services," 40 C.F.R. pt. 85; "Control of Emissions from New and In Use Highway Vehicles and Engines," "In-Use Motor Vehicle Engines: Certification and Test Procedures," 40 C.F.R. pt. 86; and "Fuel Economy of Motor Vehicles," 40 C.F.R. pt. 600. U.S. EPA regulations—"Control of Air Pollution from Mobile Services," 40 C.F.R. pt. 85.

federal support to transit was also begun that year,¹³⁴ and subsequently expanded with both an increase in the federal share for transit construction as well as opening the Highway Trust Fund for transit, HOV lanes, bus shelters, and parking facilities.

In 1970, the federal government overhauled the air pollution control program that was in place and adopted major amendments to the 1963 Clean Air Act, in part to address the lack of TCMs in earlier legislation.¹³⁵ For the first time, Congress acknowledged that transportation was a major contributor to the air pollution problem that must be addressed in order to effectively control air pollution. The 1970 Clean Air Amendments required the states to: (1) develop an inspection and maintenance program for motor vehicles in affected Air Quality Control Regions; (2) develop a retrofit program applicable to several classes of older vehicles to minimize certain emissions; (3) designate and enforce preferential bus and carpool lanes; and (4) develop a program to monitor actual emissions as affected by the foregoing programs.¹³⁶ The failure of a state to meet these requirements led to the filing of a citizens' enforcement action in which the federal courts were asked impose an injunction upon the DOT to to refrain from approving any projects or awarding highway grants except for projects for purposes of safety, mass transit, or air quality improvement.137 Citizen complaint litigation enforcing air quality laws has become more and more prevalent against federal, state, and local environmental and transportation agencies.138

In the 1970 Amendments, the federal government developed national standards for regulating air pollution, thus replacing the state air quality standards mandated in the Air Quality Act. NAAQS's were promulgated by the EPA in an effort to restrict concentrations of six common air pollutants: sulphur dioxide, ozone, CO, lead, nitrogen dioxide, and PM10. The NAAQS's are numerical standards that specify the maximum permissible concentration of the pollutant in

 135 Clean Air Act Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676.

¹³⁶ EPA v. Brown, 431 U.S. 99, 100-01, 997 S. Ct. 1635, 52
 L. Ed. 2d 166 (1977); Delaware Valley Citizens' Council for Clean Air v. Pa., 755 F.2d 38, 40-2 (3d Cir. 1985).

the ambient air. The states then were responsible for developing implementation plans that detailed how they intended to meet or attain the NAAQS's, including programs for periodic inspection and testing of motor vehicles.¹³⁹ The Amendments also strengthened enforcement and articulated deadlines by which NAAQS's were to be met in order for states to be in compliance with the Act.

When deadlines for meeting NAAQS's went unmet, Congress extended them and implemented new measures to reach attainment by passing the Clean Air Act Amendments of 1977.140 The 1977 Amendments introduced the conformity requirement mandating that federal agencies not support any activities, including transportation programs, that do not conform to an SIP. Conformity is a determination made by the MPO and DOT that the transportation plan and program in air quality nonattainment and maintenance areas meet the purpose of the SIP-reducing pollution emissions to meet the NAAQS.¹⁴¹ The transportation plan and program must contribute to reducing motor vehicle emissions, and may not create new NAAQS violations, increase the frequency or severity of existing NAAQS violations, or delay attainment of NAAQS.¹⁴² These amendments also introduced the prevention of significant deterioration (PSD) program, which prevents areas with air quality better than mandated by the NAAQS's from causing further deterioration to the air quality in the area until it reached the maximum allowed by the NAAQS's.

When setting NAAQS's, the EPA may not consider the costs of implementing air quality standards because there is no explicit authorization to do so in the Clean Air Act. Under the Act, the EPA is only required to set air quality standards at levels "requisite to protect public health." *See* Whitman v. American Trucking Assocs., 531 U.S. 457, 472, 121 S. Ct. 903, 911, 149 L. Ed. 2d 1, 17 (2001).

 140 Clean Air Act Amendments of 1977, Pub. L. No. 95-95, 91 Stat. 685 (1977).

¹³⁴ The Federal Transit Assistance Act was passed in 1970. Some might argue that the first long-term federal commitment to transit was the Urban Mass Transportation Act of 1964, while others might argue it didn't begin until promulgation of the National Mass Transportation Assistance Act of 1974, or UMTA's incorporation into the nascent DOT with the Department of Transportation Act of 1966. These statutes, and the historical development of transit in the United States, are discussed in Section 1.

¹³⁷ Delaware Valley Citizens' Council for Clean Air v. Pa.,
755 F.2d 38 (3d Cir. 1985); Pa. v. Delaware Valley Citizens'
Council for Clean Air, 478 U.S. 546, 551, 106 S. Ct. 3088, 92 L.
Ed. 2d 439 (1986).

¹³⁸ See, e.g., Council of Commuter Orgs. v. Metro. Transp. Auth., 683 F.2d 663 (2d Cir. 1982).

¹³⁹ U.S. EPA regulations, "Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Laws," 40 C.F.R. pt. 51, § 51.390 subpt. T; "Determining Conformity of Federal Actions to State or Federal Implementation Plans," 40 C.F.R. pt. 93.

¹⁴¹ Conformity determinations must be made at least every 3 years, or as changes are made to plans, TIPs, and projects. SIP revisions that establish or revise a transportation related budget or add or delete TCMs also require a new conformity determination. 40 C.F.R. pts. 51 and 93. U.S. DEP'T OF TRANSPORTATION, A GUIDE TO METROPOLITAN TRANSPORTA-TION PLANNING UNDER ISTEA—HOW THE PIECES FIT TOGETHER (1993), available at http://ntl.bts.gov/DOCS/424 MTP.html. "Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Laws," 40 C.F.R. pt. 51, § 51.390 subpt. T (1999); and "Determining Conformity of Federal Actions to State or Federal Implementation Plans," 40 C.F.R. pt. 93.

¹⁴² U.S. DEP'T OF TRANSP, GUIDE TO METROPOLITAN TRANSPORTATION PLANNING UNDER ISTEA, *supra* note 141.

Further amendments were introduced in 1990 that were intended to correct deficiencies in earlier federal clean air legislation.¹⁴³ The 1990 Amendments imposed new requirements for areas that were not in compliance with the NAAQS's.¹⁴⁴ Six categories of "nonattainment" areas were introduced with additional control measures required for each classification and new compliance deadlines.¹⁴⁵ The new amendments maintained the conformity requirement for transportation plans and also implemented more stringent federal emissions standards for new motor vehicles, with new controls on motor vehicle fuels.¹⁴⁶

¹⁴⁴ The Clean Air Act Amendments of 1990 made air pollution policy an overriding factor in transportation policy. Intermodal Surface Transportation Efficiency Act of 1991, Conference Report, 102d Cong., House Rep. No. 404 (Nov. 27, 1991). It imposed stricter automobile emission standards, and required transportation plans be designed to achieve clean air goals. If a region is not in compliance, it is designated a "nonattainment area," and the state must adopt measures to bring it into compliance. The amendments encourage federal investment in alternatives that reduce automobile use, and mandate employer-based transportation programs in nonattainment areas to reduce commuting. Robert Yuhnke, The Amendments To Reform Transportation Planning in the Clean Air Act Amendments of 1990, 5 TUL. ENVTL. L.J. 239, 240 (1991). Each state must submit a State Implementation Plan to the EPA, which sets forth its program to achieve or maintain national air quality standards. A state that fails to meet such goals risks losing billions of dollars in federal funding. Section 176 of the Act provides that no federal financial assistance of any kind may be provided if a transportation program fails to achieve conformity with the state's plan to achieve federal air quality standards. "Conformity" means that a plan or project advances a SIP's purpose of expeditiously eliminating or reducing violations of NAAQS. Citizens for a Better Env't v. Deukmejian, Nos. C89-2044 TEH, C89-2064 TEH, 1990 U.S. Dist. LEXIS 17976, at *1 (N.D. Cal. 1990). A "conforming project" must not cause or contribute to any new violation, increase the frequency or severity of any violation, or delay attainment. Environmental Defense Fund v. Browner, No. C92 1636 TEH. 1994 U.S. Dist. LEXIS 20914 (N.D. Cal 1994). Moreover, federal highway funds for any project can be withheld if the EPA deems it appropriate and reasonable.

145 40 C.F.R., pt. 50.

¹⁴⁶ See Clean Fuels Formula Grant Program, 49 U.S.C. § 5308. The 1990 Amendments also required employers in areas experiencing serious air quality problems to encourage their employees to car pool during heavy traffic periods. Five years after this mandate, Congress repealed it due to pressure from states and disgruntled employers. See generally Craig N. Oren, Detail and Implementation: The Example of Employee Trip Reduction, 17 VA. ENVTL. L.J. 123 (1998); Craig N. Oren, How a Mandate Came From Hell: The Making of the Federal Employee Trip Reduction Program, 28 ENVTL. L. 267 (1998); Patricia A. Leonard, The Clean Air Act's Mandate of Employer Trip-Reduction Programs: Is This a Workable Solution to the Country's Air Pollution Problems, 49 U. MIAMI L. REV. 827 (1995). The EPA summarizes the milestones in the evolution of the Clean Air Act as follows:

Air Pollution Control Act of 1955

• First federal air pollution legislation.

• Funded research for scope and sources of air pollution.

Clean Air Act of 1963

• Authorized the development of a national program to address air pollution-related environmental problems.

• Authorized research into techniques to minimize air pollution.

Air Quality Act of 1967

• Authorized enforcement procedures for air pollution problems involving interstate transport of pollutants.

• Authorized expanded research activities.

Clean Air Act of 1970

• Authorized the establishment of National Ambient Air Quality Standards.

• Established requirements for SIPs to achieve the National Ambient Air Quality Standards.

• Authorized the establishment of New Source Performance Standards for new and modified stationary sources.

• Authorized the establishment of National Emission Standards for Hazardous Air Pollutants.

• Increased enforcement authority.

• Authorized requirements for control of motor vehicle emissions.

1977 Amendments to the Clean Air Act of 1970

• Authorized provisions related to the Prevention of Significant Deterioration.

• Authorized provisions relating to areas that are nonattainment with respect to the National Ambient Air Quality Standards.

1990 Amendments to the Clean Air Act of 1970

• Authorized programs for Acid Deposition Control.

• Authorized a program to control 189 toxic pollutants, including those previously regulated by the National Emission Standards for Hazardous Air Pollutants.

• Established permit program requirements.

• Expanded and modified provisions concerning the attainment of NAAQS.

• Expanded and modified enforcement authority.

• Established a program to phase out the use of chemicals that deplete the ozone layer.¹⁴⁷

¹⁴³ Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399 (1990) (codified as amended at 42 U.S.C. §§ 7401-7671q).

¹⁴⁷ See Clean Air Act Requirements and History, available at http://www.epa.gov/air/caa/caa_history.html .

2. The Clean Air Act

The Clean Air Act¹⁴⁸ was developed to "protect and enhance the quality of the Nation's air resource so as to promote the public health and welfare and the productive capacity of its population."149 With this purpose in mind, the Act requires the EPA to establish air quality standards for pollutants that may reasonably be anticipated to endanger public health or welfare.¹⁵⁰ Primary responsibility for attaining these standards was left to the states. States may adopt stricter standards than those required by the Act.¹⁵¹ Each state must promulgate a SIP that details the measures, including TCMs, the state intends to implement in order to attain national air quality standards.¹⁵² TCMs are strategies designed to reduce pollution by limiting or controlling motor vehicle use. Public transportation improvement measures are strategies designed to improve or expand the transit system. Public transportation improvement indirectly reduces motor vehicle usage and its pollution externalities.¹⁵³ To assist the states, the EPA is required to publish information on various TCMs that may be used to reduce motor vehicle pollution.¹⁵⁴ States

¹⁵¹ See Exxon Mobil Corp. v. United States EPA, 217 F.3d 1246, 1250–51, 1256 (9th Cir. 2000), where the Ninth Circuit U.S. Court of Appeals held that states may set stricter standards for oxygen content standards for fuels than that which is required by the Clean Air Act. In this case, Nevada required gasoline sold in the wintertime have a minimum oxygen content of 3.5 percent, though the Clean Air Act only required a 2.7 percent minimum oxygen standard.

¹⁵² 42 U.S.C. § 7410.

¹⁵³ Council of Commuter Organizations v. Gorsuch, 683 F.2d 648, 652 n. 3 (2d Cir. 1982). An externality is a positive or negative impact upon a person not a party to the transaction. Environmental pollution is an example of a negative externality. Paul S. Dempsey, *Market Failure and Regulatory Failure as Catalysts for Political Change: The Choice Between Imperfect Regulation and Imperfect Competition*, 46 WASH. & LEE L. REV. 1, 17–21 (1989).

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The Administrator shall publish...information prepared...regarding the formulation and emission reduction potential of [TCMs] related to criteria pollutants and their precursors, including, but not limited to-(i) programs for improved public transit; (ii) restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles; (iii) employer-based transportation management plans, including incentives; (iv) trip-reduction ordinances; (v) traffic flow improvement programs that achieve emission reductions; (vi) fringe and transportation corridor parking facilities serving multiple occupancy vehicle programs or transit service; (vii) programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use; (viii) programs for the provision of all forms of high-occupancy, shared-ride services; (ix) programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place; (x) programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both

need not include all of the EPA's recommended TCMs in their SIP,¹⁵⁵ but can tailor the measures to those that may be reasonably available in their area.¹⁵⁶ These plans must be approved by the EPA for a state to fulfill its obligations under the Act and become enforceable.¹⁵⁷ If a state does not develop an adequate implementation plan, the EPA may be forced to develop a federal implementation plan (FIP)¹⁵⁸ for the state or employ sanctions such as withholding federal transportation funding from the state.¹⁵⁹

States are subdivided into air quality regions.¹⁶⁰ These regions are designated as "attainment," "nonattainment," or "unclassifiable" for particular pollutants.¹⁶¹ When the EPA designates an area as nonattainment, the state must modify its implementation plan to include stricter pollution controls to bring the area into compliance with federal standards.¹⁶² States that fail to submit new SIPs or fail to implement approved plans within 18 months risk having sanctions placed on them, including having federal transportation funds withheld.¹⁶³ The Clean Air Act prohibits the fed-

public and private areas; (xi) programs to control extended idling of vehicles; (xii) programs to reduce motor vehicle emissions, consistent with Title II, which are caused by extreme cold start conditions; (xiii) employer-sponsored programs to permit flexible work schedules; (xiv) 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 transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity; (xv) programs for new construction and major reconstructions of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation when economically feasible and in the public interest. For purposes of this clause, the Administrator shall also consult with the Secretary of the Interior; and (xvi) program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks.

42 U.S.C. § 7408(f)(l)(A).

 155 Clean Air Act of 1955, Section 176(c), 42 U.S.C. §§ 7401 $et\ seq.$

 156 See Ober v. United States EPA, 84 F.3d 304, 308 (1996), which held, "that local circumstances vary to such a degree from city-to-city that it is inappropriate to presume that all [transportation control measures] are reasonably available in all areas." However, states must address the reasonableness of all control measures based on local circumstances and then either implement them or provide a justification for their rejection.

¹⁵⁷ 42 U.S.C. § 7410.
¹⁵⁸ Id. at § 7410(c).
¹⁵⁹ Id. at § 7506()().
¹⁶⁰ Id. at § 7407.
¹⁶¹ Id. at § 7407(d).
¹⁶² Id. at § 7502(b).

¹⁶³ For examples of the types of sanctions that may be imposed, *see* the case study of Atlanta's environmental problems in Section 3.E.5 below. *See also* Bayview Hunters Point Community Advocates v. Metropolitan Transp. Comm'n, 177 F. Supp. 2d 1011, 1033 (N.D. Cal. 2001), in which the court ordered the parties to negotiate appropriate remedies.

 $^{^{148}\,42}$ U.S.C. §§ 7401 et seq.

^{149 42} U.S.C. § 7401(b)(1).

¹⁵⁰ 42 U.S.C. § 7408.

eral government from providing assistance to programs that do not conform to an approved implementation plan.¹⁶⁴ The 1977 Clean Air Act Amendments established the NAAQS. The combined impact of this legislation, as well as the 1990 Clean Air Act Amendments and ISTEA, is that nonattainment can result in ineligibility to receive federal matching funds for new transportation projects.¹⁶⁵

3. Transportation Planning for Clean Air

Transportation planning begins with development of statewide and metropolitan long-range plans, which must conform to the relevant state SIP.¹⁶⁶ The transportation sector is responsible for "mobile source" emissions as one component of the determination of an entire SIP—the other, larger component being the emissions budget for a state's "stationary sources." The SIPs need to include "reasonably available" TCMs, such as programs to improve public transportation and programs to promote ride-sharing or increased bicycle use.¹⁶⁷

In Trustees for Alaska v. Fink,¹⁶⁸ the city of Anchorage was classified as a nonattainment area for CO, largely due to vehicle emissions. Alaska revised its SIP, as required, and included in its revised plan a proposal for the expansion of the Anchorage bus system to alleviate vehicle traffic and reduce CO emission. A citizen's group brought suit against the city, claiming it violated their commitment to TCMs in the SIP when they failed to fund the bus expansion. The court held that the city did not violate its obligation because the city had made a conditional commitment to the bus expansion program contingent on the availability of funding, which is allowable under the Clean Air Act.¹⁶⁹ Though the city was eligible for state and federal grants, the bus expansion would still have an operating deficit of \$25 million and voters had rejected proposals to raise funding for the bus expansion, and the city's charter barred the city from raising taxes to cover operating costs.¹⁷⁰ Thus, due to the lack of funding, the bus expansion was not a

166 42 U.S.C. § 7410. 23 C.F.R. pt. 450.

¹⁷⁰ Id. at 1212–13.

"reasonably available" TCM.¹⁷¹ Though Anchorage was under a continuing obligation to seek out funding for the expansion, the city did not violate Alaska's SIP as a result of its failure to locate funding.

As did Alaska, Arizona included TCMs in its original SIP submitted to the EPA.¹⁷² In 1978, the EPA designated portions of Pima and Maricopa Counties in Arizona as nonattainment areas for CO.¹⁷³ The following year, Arizona responded by submitting proposed revisions to the state's SIP for both counties to comply with CO NAAQS for the state.¹⁷⁴ The SIP proposed an expansion of the mass transit systems in Pima and Maricopa Counties, including significant additions to both counties' bus fleets.¹⁷⁵ These mass transit provisions became a subject of contention between the EPA, Arizona, and private citizens, and were not resolved until 1994 by the Ninth Circuit United States Court of Appeals.¹⁷⁶

In 1982, the EPA conditionally approved the CO attainment provisions of the SIP for Pima and Maricopa Counties.¹⁷⁷ By 1986, Arizona had yet to correct the CO attainment deficiencies in the SIP, and the EPA formally disapproved the CO attainment provisions for both Pima and Maricopa Counties.¹⁷⁸ In 1987 and 1988, Arizona once again submitted CO attainment proposals for Pima and Maricopa Counties. The EPA approved the new attainment measures in the SIP. Notably, there was no mention in the new proposals of the previously approved measures.¹⁷⁹

In *Delaney v. EPA*, the Court of Appeals for the Ninth Circuit reviewed the EPA's approval of the SIP for Maricopa and Pima Counties.¹⁸⁰ Residents of both counties petitioned the court to vacate the EPA's approval because the approved SIP did not comply with

 173 Id. Tucson is located in Pima County and Phoenix is located in Maricopa County.

 176 See generally id.; Delaney v. EPA, 898 F.2d 687 (9th Cir. 1990).

 $^{177}\,$ McCarthy, 27 F.3d at 1365. The approvals were conditional due to deficiencies in the SIP that were not related to the mass transit provisions.

 178 Id. at 1366. The EPA approved other portions of the SIP and recognized that portions approved prior to 1986 would remain intact.

¹⁸⁰ Delaney, 898 F.2d 687, 689 (9th Cir. 1990); Frank W. Moskowitz, The Clean Air Act: Post-1987 Attainment Deadlines for the Carbon Monoxide Ambient Air Quality Standards in Arizona's Maricopa and Prima Counties: Delaney v. EPA, 898 F.2d 687 (9th Cir), Cert. Denied, 111 S. Ct. 556 (1990), 23 ARIZ. ST. L.J. 675 (1991) (discussing Delaney and the implementation of a FIP by the EPA subsequent to the decision).

¹⁶⁴ 42 U.S.C. § 7506.

 $^{^{165}}$ Federal funds may not be programmed in transportation management areas classified as nonattainment for ozone or carbon monoxide pursuant to the Clean Air Act for any highway project that will result in a significant increase in carrying capacity for SOVs unless the project is part of an approved congestion management system. Intermodal Surface Transportation Efficiency Act of 1991, 23 U.S.C § 134(k)(1). Conservation Law Found. v. Federal Highway Admin., 827 F. Supp. 871, 885 (D. R.I. 1993).

¹⁶⁷ See generally Philip Weinberg, Public Transportation and Clean Air: Natural Allies, 21 ENVTL. L. 1527 (1991) (discussing how public transportation should be used to achieve the goals of the CAA).

^{168 17} F.3d 1209, 1218 (9th Cir. 1994).

¹⁶⁹ Id. at 1212.

 $^{^{171}}$ Id. at 1211–12.

¹⁷² McCarthy v. Thomas, 27 F.3d 1363, 1365 (9th Cir. 1994).

 $^{^{174}}$ Id.

 $^{^{175}}$ Id. In 1979, the Tucson bus fleet consisted of 59 buses. The 1979 SIP proposed expanding the fleet to 199 buses, which would increase the number of riders to 14.5 million annually by 1986. In Phoenix, the 1979 SIP proposed 400 buses by 1982, with almost 4 million riders annually. Id.

 $^{^{179}} Id.$

the attainment timing requirements of NAAQS.¹⁸¹ The court held for the petitioners and directed the EPA to vacate the 1988 SIP for the two counties and to implement an FIP to achieve attainment NAAQS for CO.¹⁸²

Subsequent to the *Delaney* decision, citizens of Pima and Maricopa Counties sought an injunction in the Arizona federal district court to require both counties to implement the mass transit provisions from the approved 1982 SIP.¹⁸³ The issue was whether a conditionally approved provision of a state's SIP is later binding as part of the final SIP.¹⁸⁴ The district court held that the conditionally approved portions were not enforceable as part of the final SIP or FIP because they were never mentioned or referenced for incorporation into the final document.¹⁸⁵ Therefore, the court held that the mass transit provisions were not enforceable and the injunction was denied.

On appeal, the court reversed the district court's decision and remanded the case to allow the injunction requiring implementation of the 1982 mass transit provisions.¹⁸⁶ The court rejected the district court's conclusion that no conditionally approved provision of a SIP or FIP is enforceable until the final document is ultimately approved.¹⁸⁷ The court held that all approvals prior to the EPA's 1988 decision were incorporated into the transforming SIP as enforceable provisions because they were never deleted and were left intact in the EPA's subsequent approvals.¹⁸⁸

Both McCarthy v. Thomas¹⁸⁹ and Fink were decided by the Court of Appeals for the Ninth Circuit. The outcomes reached by the court may have muddled the area of SIP compliance and TCMs, but there are distinctions between the cases that explain the divergent results.¹⁹⁰ In *McCarthy*, the court required Arizona to comply with its previously approved TCMs. Arizona stated that it did not timely implement the mass transit provisions partially because of the uncertainty created by the Delaney decision. Arizona-and specifically the cities of Tucson and Phoenix-argued that the Delaney decision discharged the state's prior obligations under its SIP for CO attainment. However, Arizona never asserted that the mass transit measures were economically unfeasible or would cause the state economic hardship to enforce, as was the case in Fink. In Fink, the court found that Alaska made a good faith claim that the lack of funding for the bus expansion made compliance with the SIP in Anchorage impracticable. Economic unfeasibility, according to the Ninth Circuit, is a valid reason for noncompliance with previously approved TCMs in the state's SIP.¹⁹¹

Yet another case in this litany is Bayview Hunters Point Community Advocates v. Metropolitan Transportation Commission, 192 which held that the San Francisco MPO violated the SIP by failing to achieve a 15 percent increase in transit ridership over 5 years as contemplated by a TCM set forth in a 1982 Bay Area Quality Plan, a part of the SIP. The court dismissed defendant's argument that the TCM only requires adoption of a target increase, and not implementation of that increase, as "disingenuous."193 Though the court was sympathetic to defendants' arguments that outside forces (e.g., changing work patterns or individual preferences in choosing to use transit or not), might prevent them from achieving the 15 percent ridership increase goal, it found that "States have an unwavering obligation to carry out federally mandated SIPs; thus where a SIP is violated, liability attaches, regardless of the reasons for the violation."194

When areas of the state are designated as nonattainment for ozone, CO, or small PM10, the Clean Air Act requires that certain additional TCMs be taken in order for the area to be in compliance with the Clean Air Act.¹⁹⁵ When an area is designated nonattainment, the SIP must be revised to include additional control measures.¹⁹⁶ For example, the Act mandates strict motor vehicle inspection and maintenance programs in areas that are nonattainment. The Act also requires that nonattainment areas implement clean fuels programs-one for reformulated gasoline to aid areas in reaching attainment goals for ozone and one for oxygenated gasoline to assist areas in reaching attainment for CO. Nonattainment areas are classified based on the level of degradation in the area, with each classification having different requirements that need to be fulfilled to reach compliance with the Act.¹⁹⁷ Nonattainment areas may be redesignated to attainment when certain

¹⁹⁶ 42 U.S.C. § 7502.

¹⁹⁷ 42 U.S.C. § 7511 for ozone, which has five classifications of nonattainment: marginal, moderate, serious, severe, and extreme; 42 U.S.C. § 7512(a) for carbon monoxide, which has two classifications for nonattainment: moderate and serious.

¹⁸¹ Delaney, 898 F.2d at 689.

¹⁸² Id. at 695.

¹⁸³ See McCarthy v. Thomas, 27 F.3d 1363 (9th Cir. 1994).

¹⁸⁴ Id. at 1373.

¹⁸⁵ Id. at 1367.

¹⁸⁶ Id. at 1373.

¹⁸⁷ Id. at 1370.

¹⁸⁸ Id.

¹⁸⁹ Id.

¹⁹⁰ See Geoffrey E. Bishop, Are Mandatory Transportation Control Measures Mandatory? A Look at Ninth Circuit Judicial Enforcement of TCMs, 37 SANTA CLARA L. REV. 731 (1997) (discussing the possible rationales for the contrary decisions by the Ninth Circuit in Alaska v. Fink and McCarthy v. EPA.

¹⁹¹ On April 25, 2000, the EPA announced that Tucson was now an attainment area for the NAAQS for carbon monoxide. *See* Tucson Carbon Monoxide Redesignation Approval, available at http://www.epa.gov/region09/air/tucsonco/.

¹⁹² 177 F. Supp. 2d 1011 (N.D. Cal. 2001).

¹⁹³ Id. at 1027. See Bayview Hunter's Point Cmty Advocates v. Metro Transp. Comm., 366 F.3d 692 (9th Cir. 2004).

¹⁹⁴ 177 F. Supp. 2d at 1027–28, quoting from *Citizens for a Better Env't v. Deukmejian*, 731 F. Supp. 1448, 1458 (N.D. Cal. 1990).

¹⁹⁵ See 42 U.S.C. § 7511a for ozone nonattainment measures; 42 U.S.C. § 7512a carbon monoxide nonattainment measures; 42 U.S.C. § 7513 for PM10.

clean air criteria are met. 198 Areas that are designated nonattainment cannot receive federal transportation funds.

A state that does not conform to the statutory requirements of the Clean Air Act risks losing federal support for transportation programs. The conformity provision of the Act mandates that no agent of the federal government may in any way engage in, support, provide financial assistance for, license or permit, or approve, any activity that does not conform to an implementation plan.¹⁹⁹ Conformity to an implementation plan means:

(A) conformity to an implementation plan's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards; and (B) that such activities will not— (i) cause or contribute to any new violation of any standard in any area; (ii) increase the frequency or severity of any existing violation of any standard in any area; or (iii) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.²⁰⁰

The determination of conformity shall be based on the most recent estimates of emissions, and such estimates shall be determined from the most recent population, employment, travel, and congestion estimates as determined by the MPO or other agency authorized to make such estimates.

All federally-funded projects must come from a currently conforming plan or program.²⁰¹ Projects not from a currently conforming plan must be considered together with other transportation plans and programs and it must be determined that the plan would not cause such plans and programs to exceed emissions reduction projections.²⁰² When Congress amended the Act in 1990, it allowed some ongoing projects to be

 199 42 U.S.C. § 7506(c)(l).

202 42 U.S.C. § 7506(c)(2).

"grandfathered" and continue despite not coming from a currently conforming plan.²⁰³ However, certain conditions needed to be met for a project to be grandfathered, and it is very unlikely any of today's projects would fulfill any of the conditions.²⁰⁴

Conformity determinations are primarily made by MPOs before they approve a transportation plan and before the DOT can distribute funds. MPOs are regional agencies in areas with populations of greater than 50,000 and are responsible for developing regional transportation plans that allow for "continuing, cooperative, and comprehensive" development.²⁰⁵ To be eligible for federal funds, MPOs must develop a longrange transportation plan and a short-range TIP. Transportation plans are 20-year plans that describe the long-term goals and policies of the MPO for improving air quality.²⁰⁶ TIPs identify transportation projects to be developed in the region for which the MPO will provide federal funds.²⁰⁷ TIPs must conform to the SIP and give priority to TCMs included in the SIP.

As of this publication, and as discussed in detail in Section 4, the primary source for federal transportation funding is MAP-21, successor to SAFETEA-LU, TEA-21,²⁰⁸ and ISTEA.²⁰⁹ Under SAFTEA-LU, TCMs could be funded through the CMAQ program or the STP. CMAQ was the largest of the two, providing \$8.1 billion to promote clean air through fiscal year 2003. The funds were allocated to projects that comply with a SIP, were included in the TIP, and were likely to contribute to the attainment of NAAQS.

206 23 C.F.R. § 450.214.

- ²⁰⁸ Pub. L. No. 105-178, 112 Stat. 107 (1998).
- ²⁰⁹ Pub. L. No. 102-240, 105 Stat. 1914 (1991).

¹⁹⁸ See Southwestern Pa. Growth Alliance v. Browner, 121 F.3d 106, 110 (3d Cir. 1997), which listed five criteria, all of which must be met, in order for a state to be redesignated from nonattainment to attainment.

EPA Administrator "may not promulgate a redesignation...unless" the following five criteria are met: (i) the Administrator determines that the area has attained the national ambient air quality standard; (ii) the Administrator has fully approved the applicable implementation plan for the area...; (iii) the Administrator determines that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable implementation plan and applicable Federal air pollutant control regulations and other permanent enforceable reductions; (iv) the Administrator has fully approved a maintenance plan for the area...; and (v) the State containing such area has met all requirements applicable to the area....

²⁰⁰ Id. at § 7506(c)(l)(A).

 $^{^{201}}$ See Environmental Defense Fund v. EPA, 167 F.3d 641, 647 (D.C. Cir. 1999), where the court held that a project that at one time appeared in a conforming plan did not satisfy the statute's requirement, because the CAA requires a project come from a *currently* conforming plan to be eligible for federal funding.

²⁰³ See City of L.A. v. Federal Aviation Admin., 138 F.3d 806, 808–9 (9th Cir. 1998).

²⁰⁴ Projects were allowed to be grandfathered where (1) NEPA was completed as evidenced by a final EA, EIS, or FONSI that was prepared prior to January 31, 1994; or (2)(i) Prior to January 31, 1994, an environmental analysis was commenced or a contract was awarded to develop the specific environmental analysis; (ii) Sufficient environmental analysis is completed by March 15, 1994, so that the federal agency may determine that the federal action is in conformity with the specific requirements and the purposes of the applicable SIP pursuant to the agency's affirmative obligation under Section 176(c) of the CAA (Act); and (iii) A written determination of conformity under Section 176(c) of the Act has been made by the federal agency responsible for the federal action by March 15, 1994. 40 C.F.R. § 93.150(c).

²⁰⁵ 49 U.S.C. § 5303.

^{207 23} C.F.R. § 450.324.

MAP-21 continues the CMAQ program as a flexible funding source to state and local governments for transportation projects and programs to help meet Clean Air Act requirements. Funds are available for projects designed to reduce congestion and improve air quality in regions that fail to satisfy NAAQS for ozone, carbon monoxide, or particulate matter (nonattainment areas), as well as for former nonattainment areas that are now in compliance (maintenance areas).²¹⁰

4. Nonattainment and Conformity

ISTEA established the CMAQ and STP programs, which allocate funds to states for use by TCMs to help them implement their transportation/air quality plans and attain national standards for CO, ozone, and small PM10.²¹¹ Both the MPO long-range plan and the TIP

²¹¹ ISTEA established a CMAQ program, which allocates funds to states for use for TCMs in helping them implement their transportation/air quality plans and attain national standards for carbon monoxide, ozone, and small PM10. Both the MPO long-range plan and the TIP must conform to the state's plan to achieve conformity with air quality standards. Conformity requires that no project may be included in the state or MPO transportation program if it causes new violations of the air quality standards, exacerbates existing violations, or delays attainment of air quality standards. In urbanized areas with more than 200,000 in population (known as transportation management areas, or TMAs), MPOs devise and guide projects in cooperation with state governments. Theodore Taub & Katherine Castor, ISTEA-Too Soon To Evaluate Its Impact, ALI-ABA Land Use Institute (Aug. 16, 1995). For federally-funded transportation projects, MPOs within TMAs must develop a congestion management system (CMS), which requires consideration of "travel demand reduction and operational management strategies." 23 U.S.C. § 134(i)(3). With respect to TMAs classified as nonattainment areas for ozone or carbon monoxide pursuant to the CAA, federal funds may not be allocated to any highway project that will result in a significant increase in carrying capacity for single occupancy vehicles unless the project is part of an approved CMS. Clairton Sportsman's Club v. Pa. Turnpike Comm'n, 882 F. Supp. 455, 478 (W.D. Pa. 1995); U.S. FEDERAL HIGHWAY ADMINISTRATION: A SUMMARY: AIR QUALITY PROGRAMS AND PROVISIONS OF THE INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991, at 13 (1992), available at http://www.fhwa.dot.gov/environment/air_quality/

publications/aqistea.pdf. In nonattainment areas for transportation-related pollutants, the MPO must coordinate the development of its long-range transportation plan with the process for development of transportation measures in the SIP required by the CAA. *Intermodal Surface Transportation Efficiency Act of 1991*, Conference Report, H.R. No. 404, 102d Cong. (Nov. 27, 1991). The DOT may prescribe abbreviated requirements for development of transportation plans and programs for urbanized areas not designated as TMAs, unless they are designated as nonattainment for ozone or carbon monoxide under the CAA. The DOT must certify the process in each TMA at least every 3 years. *Intermodal Surface Transportation Efficiency Act of 1991*, Conference Report, H.R. No. 404,

must conform to the state's plan to achieve conformity with air quality standards. Conformity requires that no program may be included in the state or MPO transportation program if it causes new violations of the air quality standards, exacerbates existing violations, or delays attainment of air quality standards.²¹² In urbanized areas with more than 200,000 in population (known as transportation management areas, or TMAs), MPOs develop TIPs in cooperation with state governments.²¹³ For federally-funded transportation projects, MPOs within TMAs must develop a congestion management system (CMS) that requires consideration of "travel demand reduction and operational management strategies."214 For TMAs classified as nonattainment areas for ozone or CO pursuant to the Clean Air Act, federal funds may not be allocated to any highway or transit project that will result in a significant increase in carrying capacity for single occupancy vehicles unless the project is part of an approved CMS.²¹⁵ In nonattainment areas for transportation-related pollutants, the MPO must coordinate the development of its long-range transportation plan with the process for development of transportation measures in the SIP required by the Clean Air Act.²¹⁶ The DOT may approve a proposal for abbreviated requirements for development of transportation plans and programs for urbanized areas not designated as TMAs, unless they are designated as nonattainment for ozone or CO under the Clean Air Act.²¹⁷

An MPO has an affirmative responsibility to reject any project, program, or plan that does not conform to an approved implementation plan²¹⁸ and that is in a nonattainment area as defined in the Clean Air Act.²¹⁹ Conformity means that the purpose of eliminating or reducing the severity and number of violations of the NAAQS, and achieving expeditious attainment of such standards, is not compromised.²²⁰ Specifically, it means that activities will not

(i) cause or contribute to any new violation of any standard in any area; (ii) increase the frequency or severity of any existing violation of any standard in any area; or (iii) delay timely attainment of any standard or any required

102d Cong. (Nov. 27, 1991). See generally Paul Dempsey, The Law of Intermodal Transportation: What It Was, What It Is, What It Should Be, 27 TRANSP. L.J. 367 (2000).

 213 ISTEA, Pub. L. No 105-178, 112 Stat. 107 (1998). Taub & Castor, supra note 211.

 $^{214}\ 23 \ U.S.C. \ \ 134(i)(3).$

²¹⁵ Clairton Sportsman's Club v. Pa. Turnpike Comm'n, 882
F. Supp. 455, 478 (W.D. Pa. 1995); FHWA, *supra* note 210.

²¹⁶ Intermodal Surface Transportation Efficiency Act of 1991, Conference Report, H.R. No. 404, 102d Cong. (Nov. 27, 1991).

 217 Id.

 $^{218}\,42$ U.S.C. § 7506(c)(1).

 219 42 U.S.C. § 7506(c)(5).

220 42 U.S.C. § 7506(c)(1)(A).

²¹⁰ MAP-21 § 1113, codified at 23 U.S.C. § 149. See FHWA, MAP-21, Congestion Mitigation and Air Quality Improvement (CMAQ) program Web site, http://www.fhwa.dot.gov/map21/ cmaq.cfm (visited Nov. 9, 2013).

 $^{^{212}}$ Id.

interim emission reduction or other milestones in any area. $^{\scriptscriptstyle 221}$

Conformity is determined by reviewing recent estimates of emissions. Those estimates are determined from recent population, employment, travel, and congestion estimates as determined by the MPO or other agency authorized to make such estimates.²²²

An MPO may not adopt a TIP or other transportation plan until a final determination has been made that such plan meets this definition of conformity.²²³ Additionally, emissions expected from implementation of a project, program, or plan must be consistent with estimates of emissions from motor vehicles and necessary emissions reductions contained in the applicable implementation plan.²²⁴ Further, an MPO may not adopt a TIP until it determines that the program provides for timely implementation of TCMs that are consistent with schedules in the applicable implementation plan.²²⁵

An MPO may only adopt a transportation project if it meets the following criteria: (1) the project is from a conforming plan and program; (2) the design concept and scope of the project has not changed significantly since the conformity finding regarding the plan and program from which the project was derived; and (3) the design concept and scope of the project at the time of the conformity determination for the program was adequate to determine emissions.²²⁶

Any project failing to meet the above criteria may still be treated as conforming if it is demonstrated that the projected project emissions will not cause accepted plans and programs under an approved implementation plan to exceed their assigned emission reduction projections and schedules.²²⁷ In CO nonattainment areas, transportation projects may demonstrate conformity if the project eliminates or reduces the severity and number of such violations in the area substantially affected by the project.²²⁸

When an implementation plan revision is pending approval, conformity of its plans, programs, and projects may be demonstrated by showing the following: (1) consistency with the most recent estimates of mobile source emissions; (2) provisions for the expeditious implementation of TCMs in the applicable implementation plan; and (3) a reduction in annual emissions in ozone and CO nonattainment areas.

Conformity determinations for transportation plans, TIPs, and projects are based on EPA transportation conformity regulations, and are summarized as follows:

- ²²³ 42 U.S.C. §§ 7506(c)(1), (c)(2)(A).
- 224 42 U.S.C. § 7506(c)(2)(A).
- 225 42 U.S.C. § 7506(c)(2)(B).
- 226 42 U.S.C. § 7506(c)(2)(C).
- 227 42 U.S.C. § 7506(c)(2)(D).
- 228 42 U.S.C. § 7506(c)(3)(B).

TRANSPORTATION PLANS AND PROGRAMS

• The transportation plan and program must be fiscally constrained.

• The transportation plan and program must use the most recent estimates of mobile source emissions and latest planning assumptions.

• The transportation plan and program must provide for expeditious implementation of TCMs in the SIP.

• The transportation plans and programs of MPOs for areas designated as nonattainment and maintenance areas for ozone or CO must contribute to annual emissions reductions and/or meet emission budgets.

• The transportation plan and programs for MPOs for areas designated nonattainment or maintenance areas for PM10 and NOx must contribute to emission reductions or must not increase emissions.

TRANSPORTATION PROJECTS

• Transportation projects must come from the conforming transportation plan and TIP.

• The design concept and scope of the project that was in place at the time of the conformity finding must be maintained throughout implementation.

• Project design and scope must be sufficiently defined to determine emissions at the time of the conformity determination for the TIP.

• A project in CO nonattainment areas must show a reduction in the number and severity of CO violations in the area substantially affected by the project.²²⁹

If the transportation plan, TIP, or project do not meet the conformity requirements, the transportation officials must either modify it to offset the emissions, or work with the state to modify the SIP to offset the plan, TIP, or project emissions. If neither can be accomplished, the plan, the TIP, or project may not move forward.²³⁰ In other words, federally-funded projects may not proceed unless there is a currently conforming transportation plan and program at the time of project approval.²³¹ The projected emissions of a project, when considered with emissions projected from the applicable plan and program within the nonattainment area, must not cause such plan and program to exceed the emission reduction projections and schedules delineated in the SIP.²³²

²²¹ 42 U.S.C. § 7506(c)(1)(B).

²²² 42 U.S.C. § 7506(c)(1).

²²⁹ U.S. DEP'T OF TRANSP., A GUIDE TO METROPOLITAN TRANSPORTATION PLANNING UNDER ISTEA—HOW THE PIECES FIT TOGETHER at 35 (1993), available at

http://ntl.bts.gov/DOCS/424MTP.html. If these criteria cannot be met, it must be demonstrated "that the project emissions, when considered with the emissions projected for the conforming transportation plan and TIP, do not cause the plans and programs to exceed the emissions budget in the SIP." *Id.* at 35.

²³⁰ Id. at 36.

 $^{^{231}}$ Environmental Defense Fund v. EPA, 167 F.3d 641, 647 (D.C. Cir. 1999),

 $^{^{232}}$ 42 U.S.C. § 7506(c)(2)(D).

Citizen suits are permitted under the Clean Air Act.²³³ Commuter organizations have turned to the courts to force states to give transit a higher priority and enhanced financial support in the preparation of SIPs,²³⁴ or to comply with their SIPs.²³⁵ Clean air conformity determinations have also been challenged.²³⁶ Some courts have ordered governmental institutions to take such TCMs as will bring their region into conformity with its environmental obligations, and often they do include enhanced transit support.²³⁷ For example, serious PM10 problems in Phoenix led the courts to force the government to adhere to its original plan and purchase more buses.²³⁸

5. Gridlock in Atlanta: A Case Study

Atlanta's environmental problems were the first of any major American metropolitan area to have triggered the loss of federal transportation funds under the Clean Air Act. It is for that reason that it is addressed here as a case study, as an example of how transportation planning can go awry, and how the state and local governmental institutions addressed the crisis.²³⁹

Atlanta began to grow in the 1960s. Several of the nation's fastest growing counties have been suburban Atlanta counties. As it grew, Atlanta became regional headquarters of everything, and national headquarters to several of the Fortune 500 firms. As the metropolitan area grew in population, more and wider roads were laid, penetrating deep into north Georgia, which was transformed from rural countryside into the suburban megalopolis of Atlanta.

As in many states, the Georgia DOT was in reality a Georgia Highway Department. A beltway surrounding Atlanta was completed in the late 1960s, with development at the interchanges transforming I-285 from a transportation corridor into a destination point of shopping, manufacturing, and office facilities.²⁴⁰ Residents and businesses moved farther and farther from the cen-

 235 See, e.g., American Lung Ass'n v. Kean, 670 F. Supp. 1285 (D. N.J. 1987); Coalition Against Columbus Center v. N.Y., 967 F.2d 764 (2d Cir. 1992).

²³⁶ See, e.g., Environmental Council of Sacramento v. Slater, 184 F. Supp. 2d 1016 (E.D. Cal. 2000).

²³⁷ See, e.g., Citizens for a Better Env't v. Deukmejian, 731
 F. Supp. 1448 (N.D. Cal. 1990).

²³⁸ See Ober v. Whitman, 243 F.3d 1190 (9th Cir. filed 2001); Ober v. EPA, 84 F.3d 304 (9th Cir. filed 1996).

 239 See, e.g., Northeast Buckhead Civic Ass'n v. Skinner, 903 F.2d 1533 (11th Cir. 1990).

²⁴⁰ Christine Kreyling, *Getting the Runaround*, PLANNING MAGAZINE, Nov. 2000, at 4.

tral business district. Lax zoning allowed strip malls, gasoline stations, and fast food restaurants to be built along nearly every linear foot of the major transportation arteries.

Two million additional people were added to the Atlanta metropolitan region after 1970, spread across 21 counties.²⁴¹ Sprawl, pollution, and congestion were the inevitable result. By the end of the 20th century, metropolitan residents were driving an average of 33 miles a day, surpassed by only Nashville, Birmingham, and Houston. Atlanta's drivers were delayed 53 hours by traffic annually, second only to Los Angeles's 56 hours. It was not uncommon for Atlanta's expressways to grind to 10 lanes of gridlock during rush hours.²⁴² Georgians consumed 24 percent more gasoline than the national average, and this figure was growing at twice the national rate.²⁴³ Atlanta had the nation's sixth worst ozone pollution (created when tailpipe NOx and other VOCs absorb sunlight),244 surpassed only by five California cities and Houston.245 The amount of NOx and VOCs in Atlanta's air weighed as much as six Boeing 747 aircraft. Motor vehicles were responsible for more than 60 percent of the air pollution in the region. Before 1998, the state DOT's response to congestion was to build and widen highways.²⁴⁶ According to Catheryn McCue of the Southern Environmental Law Center, "Atlanta is the poster child for sprawl, polluted air and poor land-use planning."247 The Wall Street Journal ran a front page story with the headline, "Is Traffic-Clogged Atlanta the New Los Angeles?," while Newsweek made Atlanta the lead story on an issue devoted to sprawl.²⁴⁸

²⁴¹ Leon Eplan, Atlanta Airs Its Options, PLANNING MAGAZINE, Nov. 1999, at 14.

²⁴² Lee Anderson, *Shutting Down Atlanta?*, CHATTANOOGA TIMES FREE PRESS, June 7, 2001, at B7.

²⁴³ Georgia's fuel tax was only 7.5 cents per gallon, compared to a national average of 19 cents. Russell Grantham, *Atlanta's Gas Habit*, ATLANTA JOURNAL AND CONSTITUTION, May 10, 2001, at 1E.

²⁴⁴ Combustion from fuel in cars, coal-fired plants, and other gas-powered engines is primarily responsible for the nitrogen oxide in the environment. Combustion engines in various vehicles and vapors from paint, dry cleaning, and lawn chemicals contribute to the VOCs in the environment. See generally for discussions on combustion sources, The Clean Air Campaign, Air Quality & Health,

http://www.cleanaircampaign.org/.

²⁴⁵ Georgia Wins Road Program Lawsuit, CHATTANOOGA TIMES FREE PRESS, June 7, 2001, at B2. Machine engines and industrial smokestacks also produce NOx. Kelly Simmons, Smog Season, ATLANTA JOURNAL AND CONSTITUTION, Apr. 30, 2001, at 1C; See The Clean Air Campaign, Air Quality & Health, http://www.cleanaircampaign.org/http://www. cleanaircampaign.com/sec04_a2.asp.

²⁴⁶ Eplan, *supra* note 241.

²⁴⁷ Betty Liu, *Lawsuit On Atlanta Road Plans*, FINANCIAL TIMES, June 6, 2001, at 6; Southern Environmental Law Center, *Citizens Sue EPA in Ongoing Effort to Clean Up Air*, Jan. 17, 2001.

²⁴⁸ Eplan, *supra* note 241, at 14–15.

^{233 42} U.S.C. § 7604.

²³⁴ See, e.g., Council of Commuter Organizations v. Thomas, 799 F.2d 879 (2d Cir. 1986); Action for Rational Transit v. West Side Highway Project, 699 F.2d 614 (2d Cir. 1983); Action for Rational Transit v. West Side Highway Project, 536 F. Supp. 1225, 1232–33 (S.D. N.Y. 1982); Council of Commuter Organizations v. Metropolitan Transp. Auth., 683 F.2d 663 (2d Cir. 1982).

Yet there were a few positive signs. Highway gridlock had improved transit ridership. MARTA experienced a 5.3 percent improvement in rail ridership, and a 3.5 percent growth in bus ridership between 1999 and 2000.²⁴⁹ MARTA had been born in the 1960s in the two counties in which the city of Atlanta lays partial claim—Fulton and DeKalb Counties. An expanded rail network was one of the major means of handling the influx of visitors during the 1996 Atlanta Olympic Games. MARTA's rail network also serves Hartsfield International, the world's busiest airport.

But concerns over Atlanta's air quality and automobile dependence have been long-standing. As early as 1975, citizens and environmental groups were filing litigation against the Atlanta Regional Commission (ARC) (the regional MPO), the DOT, and MARTA alleging that their transportation plans failed to fulfill federal environmental obligations.²⁵⁰ By and large, such lawsuits were unsuccessful until the 1990s.

Atlanta fell out of compliance with federal ozone standards in 1995, and was designated in "serious" nonattainment.²⁵¹ The ARC failed to submit an updated plan conforming to the air quality requirements by the December 31, 1997, deadline, and lost federal funding for new transportation projects.²⁵² In 1998, the federal government cut off highway money to 13 counties in the Atlanta nonattainment area. ²⁵³ The freeze on federal funding cost the area \$153 million per year.²⁵⁴ The region would remain in noncompliance and ineligible for new federal transportation funds for more than 2 years.

In November 1998, Roy Barnes, a suburban Atlanta state Senator, was elected Governor of Georgia, declaring Atlanta's air pollution problems his highest prior-

²⁵¹ James Pilcher, Environmental Groups Settle Georgia Road Suit, CHATTANOOGA TIMES FREE PRESS, June 22, 1999, at B5.

²⁵² Federal Appeals Court Strikes Down EPA Grandfathering of Road Projects, 10 GA. ENVTL. L. LETTER (Mar. 1999).

²⁵³ David Firestone, Collapse of Atlanta Talks Keeps Road Builders Idle, N.Y. TIMES, Jan. 4, 2001, at 18A.

²⁵⁴ Flawed ARC Plan Will Haunt Us All, ATLANTA JOURNAL AND CONSTITUTION, July 28, 2000, at 22A.

ity.²⁵⁵ In January 1999, newly elected Governor Barnes proposed creation of a super-agency to keep the region mobile while restricting asphalt-intensive sprawl, and rein in local development.²⁵⁶ In response, in April, both houses of the state legislature overwhelmingly passed legislation creating the Georgia Regional Transportation Authority [GRTA], giving it broad powers to manage transportation projects, air quality, and land use in nonattainment areas.²⁵⁷ Effectively controlled by the Governor, GRTA was given authority to deny funds for infrastructure and enjoin access from private property to state and local highways.²⁵⁸ It was given power to resolve disputes between state DOT and regional agencies, approve or disapprove transportation plans, establish targets for air quality improvements, exercise eminent domain, issue bonds, control access to state and local roads, and overrule commuter rail projects recommended by the Georgia Rail Passenger Authority.²⁵⁹ The 15 GRTA members also sit on the Governor's Development Council, which has jurisdiction to formulate a systematic land use plan.²⁶⁰ The Act also included a provision dividing the state's federal and state transportation funds equally among the state's congressional districts.261

John Hankinson, Jr., of the EPA's regional office wanted to prohibit the use of federal funds for highway construction in the region until the state adopted an acceptable plan for cleaning up the air. However, FHWA urged leniency, allowing the metro area to proceed simultaneously with the implementation of several "grandfathered" road projects, despite little progress in reducing smog, while the tardy plan for cleaning up the air was being completed. The CEQ intervened, trying to resolve the differences on how many regional transportation projects should proceed while the region was in violation of air pollution laws. The EPA compromised by allowing a number of highway projects to go forward as the plan was being completed and submitted for review and approval.²⁶²

In 1999, a coalition of environmental groups brought suit accusing state and federal transportation depart-

²⁵⁷ Testimony of DOT Secretary Rodney Slater Before the U.S. Senate Committee on Commerce, Science and Transportation (Dec. 2000); Tom Arrandale, Smart Air, GOVERNING MAGAZINE 88 (July 2000).

 258 Kreyling, supra note 240, at 8; Eplan, supra note 241, at 16.

 $^{\rm 259}$ Eplan, supra note 241, at 16.

²⁶⁰ GRTA Board Is Set to Tackle Atlanta's Sprawl, 11 GA. ENVTL. L. LETTER (Oct. 1999). Moving Beyond Sprawl, Brookings, http://www.selcga.org/res_news2001-01-17.shtml.

²⁶¹ Donald Biola, Georgia Regional Transportation Authority Acts: Provide for a Regional Transportation Authority, 16 GA. ST. U. L. REV. 233, 236–38 (1999).

²⁶² Charles Seabrook, EPA Regional Chief Leaving Many Irons In the Fire, ATLANTA CONSTITUTION, Jan. 22, 2001, at 1B.

²⁴⁹ Simmons, *supra* note 245.

²⁵⁰ See, e.g., Piedmond Heights Civic Club, Inc. v. Moreland, 637 F.2d 430, 433 (5th Cir. 1981) (affirming the district court's denial of the plaintiffs' motion for preliminary injunction to enjoin highway construction around Atlanta for failure to comply with NEPA); Atlanta Coalition on the Transp. Crisis, Inc. v. Atlanta Reg'l Comm'n, 599 F.2d 1333, 1347–49 (5th Cir. 1979) (holding that the state planning process is not a major federal action within NEPA); Hatmaker v. Ga. Dep't of Transp., 973 F. Supp. 1047, 1058 (M.D. Ga. 1995) (granting the plaintiffs' preliminary injunction to prohibit the Georgia DOT from constructing a roadway that would destroy a historic oak tree); Inman Park Restoration, Inc. v. Urban Mass Transp. Admin., 414 F. Supp. 99 (N.D. Ga. 1976) (denying plaintiffs' motion for declaratory and injunctive relief based on the various transportation agencies' failure to comply with NEPA).

²⁵⁵ Eplan, *supra* note 241.

²⁵⁶ Environmentalist Plaintiffs Are Only Hope for Clean Air, ATLANTA JOURNAL AND CONSTITUTION, Apr. 9, 2001, at 8A.

ments and the ARC of trying to slip through 61 Atlanta regional road and highway projects, totaling \$700 million, before the EPA's 1998 deadline. Plaintiffs claimed the grandfather provisions of the Clean Air Act were intended only for projects that had received environmental approval, let contracts, or begun construction, or if unsafe conditions required immediate construction.²⁶³ Plaintiffs also claimed that the projects violated the federal Clean Air Act by not conforming to the SIP.264 Meanwhile, in a lawsuit brought by the Sierra Club to block 81 grandfathered road projects, the D.C. Circuit U.S. Court of Appeals issued a decision striking down the EPA's "conformity" and "grandfather" rules on grounds that they violated the 1990 Amendments to the Clean Air Act prohibiting MPOs from approving and DOT from funding any transportation project unless it emanates from a plan and program that conform to state-level air quality standards.²⁶⁵

The Clinton Administration chose not to appeal the decision, and subsequently issued guidelines allowing only projects already funded and under construction to proceed.²⁶⁶ Because of the chance of adverse precedent and the resounding implications for transportation in every nonattainment area throughout the land, the FTA was heavily involved in intense, comprehensive negotiations with the Atlanta parties. The lawsuit led to a settlement in June of 1999, under which the state agreed to forego all but 17 of the 61 "grandfathered" projects. Other terms of the settlement included (1) a comprehensive study of the north metro-Atlanta transportation needs, (2) a panel of experts appointed to oversee the ARC's use of computer models to assess the impact of its transportation plan on air quality, and (3) an analysis of the impact of transportation funds on minority and poor populations.²⁶⁷ The suit was predicated on the EPA's approval of the region's 25-year transportation plan, alleging it was based on flawed data and did little to clean up the air.²⁶⁸

On March 22, 2000, ARC approved a \$36 billion 25year regional transportation plan, and a \$1.9 billion 3year TIP. It would have to be approved by GRTA before being forwarded to DOT for approval.²⁶⁹ On July 18, 2000, the 11th Circuit granted a petition blocking federal approval of Atlanta's TIP and Regional Transportation Plan (RTP). Environmental groups had argued that the data upon which the state calculated its motor vehicle emissions budget was flawed and underestimated emissions from mobile sources. (Once the budget is established, the state uses computer models to estimate how much stationary source pollution it must reduce to achieve federal ozone standards).²⁷⁰

But on July 25, 2000, the FHWA and FTA, in consultation with EPA, approved Atlanta's RTP and TIP, lifting the ban on federal dollars for highway construction. DOT sidestepped the 11th Circuit decision on grounds that the transportation plan conformed to a motor vehicle emissions budget that the ARC had submitted in 1998 as part of the nonattainment area's rate of progress plan.²⁷¹ DOT argued that the new "transportation conformity determination" for the Atlanta area was based on a more stringent air quality standard than that derailed by the 11th Circuit a week earlier.²⁷² The TIP directed 40 percent of funds to transit, 10 percent to bicycle and pedestrian improvements, 21 percent to safety and bridge and intersection improvements, and 26 percent to highways, including HOV lanes.²⁷³ The Atlanta regional transportation plan had been in "conformity lapse" since January 1998. But the environmental groups claimed the plan would "not reduce tailpipe emissions, and [was] based on faulty data and land use assumptions."274 When several environmental groups threatened litigation, the state began to negotiate with them, holding all highway projects in abeyance during the negotiations.²⁷⁵

After 2 months of negotiations, four environmental groups reached a tentative settlement with the state in December 2000, in which the state committed to requiring cleaner heavy-duty diesel engines and fuels and additional emissions controls, accelerating the building of HOV lanes and express bus service, and providing funding for a set of bikeways and walkways. "The state also agreed to make an increasing share percentage of jobs and activities accessible by mass transit by setting annual goals" and funding commitments to achieve them, and to offer rewards and penalties to encourage

²⁷⁴ Kelly Simmons, *Pact Delays Road Projects*, ATLANTA JOURNAL AND CONSTITUTION, Oct. 6, 2000, at 3B.

²⁶³ Eplan, *supra* note 241, at 14–15.

²⁶⁴ Mark Murray, A Bumpy Ride for New Highways, 31 NAT'L J. 1898 (June 26, 1999).

²⁶⁵ Environmental Defense Fund v. E.P.A, 167 F.3d 641, 651 (D.C. Cir. 1999).

²⁶⁶ Murray, supra note 264; Road Builders Seek Involvement In Lawsuit Challenging Atlanta Road Projects, 10 GA. ENVTL. L. LETTER (June 1999).

²⁶⁷ Environmental Groups and DOT Settle Lawsuit on Road Projects, 11 GA. ENVTL. L. LETTER (July 1999).

²⁶⁸ Seabrook, *supra* note 262.

²⁶⁹ ARC Approves 25-Year Transportation Plan, 11 GA. ENVTL. L. LETTER (Apr. 2000).

²⁷⁰ Federal Court Blocks Latest Motor Vehicle Emissions Budget, 12 GA. ENVTL. L. LETTER (Aug. 2000).

²⁷¹ Federal DOT Approves Atlanta's Regional Transportation Plan, 12 GA. ENVTL. L. LETTER (Aug. 2000).

²⁷² U.S. Dep't of Transp., U.S. Transportation Secretary Slater Says Atlanta Can Move Forward, Presswire, July 27, 2000.

²⁷³ U.S. Dep't of Transp., Transportation Secretary Slater Says Atlanta Can Move Forward, PR Newswire, Jan. 26, 2000. Before the Congress, DOT Secretary Slater testified that nearly 55 percent of regional transportation funds would go to transit and commuter rail projects. Testimony of DOT Secretary Rodney Slater Before the U.S. Senate Committee on Commerce, Science and Transportation (Dec. 2000).

²⁷⁵ Firestone, *supra* note 253; Charles Seabrook, *Suit Threatened on Transport Plan*, ATLANTA JOURNAL AND CONSTITUTION, Dec. 2, 2000, at 4G.

• Fully fund GRTA's regional bus program and pay part of the cost of MARTA's request for natural gas buses and paratransit vehicles, while committing up to \$120 million over 5 years to implement transit strategies to meet greater mobility goals;

• Make greater efforts to reduce SOV travel;

• Build more bike and pedestrian projects;

• Adopt a new mobility goal that "ensures equal access to all places of employment, housing, worship and public facilities, including access by populations that do not own or operate personal vehicles," and commit to annual progress in meeting the goal;

 \bullet Complete an HOV project on Interstate-75 between I-285 and I-575; and

 \bullet Adopt criteria for land use planning and density around commuter rail stations. 277

In return for the ability to proceed with the \$36 billion, 25-year transportation plan, the state wanted the environmental groups to withdraw all pending suits against state and federal agencies challenging the transportation plan.²⁷⁸ Among the suits was one pending before the 11th Circuit Court of Appeals, which sought to declare illegal the EPA's extension from 1999 to 2003, the date by which Atlanta had to comply with NAAQS for ozone. Plaintiffs sought to have the EPA immediately declare Atlanta a "severe" ozone nonattainment area. Under Section 181 of the Clean Air Act, any area designated as a serious nonattainment area had until November 15, 1999, to demonstrate compliance or be elevated to the next highest nonattainment category, which in Atlanta's case was severe.²⁷⁹

In negotiations with the state, the environmental groups sought the right to go back to federal court to enforce the agreement, while the state insisted that the Georgia courts should handle the enforcement.²⁸⁰ The environmental groups wanted the state to achieve ozone-reduction goals by 2003, while the state wanted a year longer.²⁸¹ The state also wanted the right to terminate the agreement if any other group or individual filed suit.²⁸² The deal collapsed the following month when the state abruptly announced it would move for-

ward on road projects in the \$36 billion transportation plan, which had been on hold during the negotiations.²⁸³ Governor Barnes insisted, "[t]he state has offered you far more than any previous administration ever did and far more than any court is likely to require...I urge you to accept our offer of Dec. 29. We will make no further changes to it....^{"284}

The Atlanta Constitution weighed in on the side of the environmentalists, blaming Governor Barnes for keeping GRTA caged; for failing to keep promises to identify funds for expanding suburban bus service, commuter rail, and other transit lines; for championing a massive borrowing campaign to build "developmental' highways"; and for pulling "the plug on an eminently reasonable settlement that could have avoided the current legal action." According to the newspaper:

The agreement would have sped up construction of express lanes for commuter buses and required cleaner heavy-duty diesel engines and fuels. But at the last minute, Barnes responded to pressure from the Department of Transportation and local officials on the Atlanta Regional Commission, the same bunch that got us into the tangle with the Clean Air Act in the first place.

Time and again, government officials have demonstrated that they will revert to smog-and-sprawl business as usual the second the pressure is off. $^{\rm 285}$

A coalition of environmental groups responded by filing suit against state and federal agencies, including DOT and ARC.²⁸⁶ It was a unique approach, seeking to freeze 137 highway projects (13 of which were under construction, 14 of which were approved for right-ofway acquisition, and the rest in planning or engineering stages),287 while allowing environmentally benign projects (including transit, rail, bicycle, and pedestrian projects) to move forward.²⁸⁸ Gov. Barnes testified that shutting off \$400 million in federal transportation funds would create traffic "chaos" that would "[stop] many projects that are absolutely necessary. This would be a disaster transportation-wise and a disaster politically."289 Southern Environmental Law Center attorney David Farren responded, "It's a little bit Chicken Little to say there will be dire consequences for the region"

²⁷⁶ Barnes Has Come Too Far To Scuttle Talks on Lawsuit, ATLANTA JOURNAL AND CONSTITUTION, Jan. 4, 2001, at 14A; *Kudos All Around on Clean-Air Pact*, ATLANTA JOURNAL AND CONSTITUTION, Dec. 14, 2000, at 26A.

²⁷⁷ Kathey Pruitt, *State Offers Settlement on Highways*, ATLANTA JOURNAL AND CONSTITUTION, Dec. 9, 2000, at 1G.

²⁷⁸ Kelly Simmons, *Environmental Groups Conditionally Accept State Plan on Roads*, ATLANTA JOURNAL AND CONSTITUTION, Dec. 12, 2000, at 3D.

 $^{^{279}}$ Georgia SIP Still Up in the Air, 12 GA. ENVTL. L. LETTER (Oct. 2000).

²⁸⁰ Firestone, *supra* note 253.

 $^{^{281}}$ Id.

 $^{^{282}} Id.$

²⁸³ Kelly Simmons, State Mulling Ideas From Failed Transportation Plan Talks, ATLANTA JOURNAL AND CONSTITUTION, Jan. 8, 2001, at 5C.

²⁸⁴ Firestone, *supra* note 253.

²⁸⁵ Environmentalist Plaintiffs Are Only Hope for Clean Air, ATLANTA JOURNAL AND CONSTITUTION, Apr. 9, 2001, at 8A.

²⁸⁶ Betty Liu, *Lawsuit on Atlanta Road Plans*, FINANCIAL TIMES (London), June 6, 2001, at 6.

²⁸⁷ Group Asks Judge to Halt Atlanta Road Projects, CHATTANOOGA TIMES FREE PRESS, June 6, 2001, at B10.

²⁸⁸ Group Wants Road-Work Halt, ORLANDO SENTINEL, June 6, 2001, at A9; Kelly Simmons, *Anti-Road Suit Goes to Court Today*, ATLANTA JOURNAL AND CONSTITUTION, June 5, 2001, at 1B.

²⁸⁹ Legal Theatrics Get Activists Nowhere, ATLANTA JOURNAL AND CONSTITUTION, June 7, 2001, at 20A.

when the 2-year loss of federal funds resulted in no such chaos. $^{\rm 290}$

The federal judge refused to issue an injunction shelving the state's highway projects. One issue was whether the court-if it concluded that the state still had not met federal environmental requirementswould engage in a Solomon-like dissection, eliminating 137 road projects from the plan while allowing the other projects to move forward, or instead reject the entire plan.²⁹¹ Barnes testified that if the federal courts began to amend SIPs, "There would never be an end game. The courts should not be involved in the administrative weighing and balancing of a plan. There would be no end to it."292 The Sierra Club's Bryan Hager said, "just like in the 1950s and 1960s when we were dealing with segregation, we have to turn to the federal courts to get our officials to comply with the law....We have a fundamental human right to breathe that's being threatened....We will continue to look to the courts."293 It was anticipated that the losing party would appeal to the 11th Circuit.²⁹⁴

In May 2001, the state Environmental Protection Division issued a revised SIP postponing the state's deadline for satisfying federal limits on ground-level ozone, the principal ingredient of smog, to November 2004. Originally the target was November 1999, and it was subsequently moved to November 2003. A federal court had given Georgia and 21 other states an additional year to reduce air pollution.²⁹⁵ The environmental coalition appealed that decision as well. But in 2002, FHWA and FTA completed their review of the Atlanta area's transportation plan and TIP and concluded that they conformed to its approved SIP. This freed Atlanta to move forward with its long-range plan. Atlanta since has been deemed in conformity with federal clean air requirements.²⁹⁶ In 2012, EPA announced its approval of Georgia's fine particulate matter base year emissions inventory filed as part of its SIP.297

6. The TIGGER Program

Initiated within the American Recovery and Reinvestment Act (ARRA) of 2009, the Transit Investments for Greenhouse Gas and Energy Reduction (TIGGER) program was continued in FY 2011 through the Department of Defense and Full-Year Continuing Appropriations Act.²⁹⁸ Discretionary grants of \$100 million were appropriated for capital investments to reduce the energy consumption and greenhouse gas emissions of public transportation systems. The program is managed by FTA's Office of Research, Demonstration and Innovation in coordination with the Office of Program Management and FTA's regional offices.

F. THE ENDANGERED SPECIES ACT (ESA)

The Endangered Species Act of 1973²⁹⁹ (ESA) is concerned with protecting species of plants and animals threatened with extinction.³⁰⁰ In this Act, Congress recognized the aesthetic, ecological, historical, and scientific value of various species of plants and animals and the importance of protecting biodiversity.³⁰¹ To achieve its purpose, the Act provides for listing of species determined to be "endangered" or "threatened," requires federal agencies to carry out programs to conserve these identified species, and makes it unlawful to "take" an endangered animal species. The Act also has provisions for the protection of critical habitat of endangered species.

Under the ESA, the Secretary of Commerce or Secretary of the Interior is required to determine whether a species is "threatened" or "endangered" and to designate critical habitat of such species.³⁰² A species is "endangered" if it is in danger of extinction throughout all or a significant portion of its range.³⁰³ A species is "threatened" if it is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.³⁰⁴ The Secretary is to determine whether to list a species as endangered because of any of the following factors: "(A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence."305 Once a species is listed, it is protected under the Act and entitled to all the benefits of that protection.

- ³⁰² Id. § 1533(a).
- ³⁰³ Id. § 1532(6).
- 10. § 1002(0).
- 304 Id. § 1532(20).

²⁹⁰ John McCosh, Judge Refuses to Halt Funding of Atlanta Transportation Plan, ATLANTA JOURNAL AND CONSTITUTION, June 7, 2001, at 1A.

²⁹¹ Bryan Hager, *Transportation Litigation Update*, GTA TRANSPORTATION VOICE (Summer 2001).

²⁹² Legal Theatrics Get Activists Nowhere, ATLANTA JOURNAL AND CONSTITUTION, June 7, 2001, at 20A.

²⁹³ Georgia Wins Road Program Lawsuit, CHATTANOOGA TIMES FREE PRESS, June 7, 2001, at B2.

²⁹⁴ John McCosh, *Roadwork Goes On, Foes Undaunted*, ATLANTA JOURNAL AND CONSTITUTION, June 18, 2001, at 1E.

²⁹⁵ Charles Seabrook, *State Eases Deadline to Limit Ozone*, ATLANTA JOURNAL AND CONSTITUTION, May 31, 2001, at 1A.

²⁹⁶ http://www.fhwa.dot.gov/publications/publicroads/ 00septoct/atlanta.cfm

²⁹⁷ On Atlanta and transit generally, see Collin R. Glidewell, A Pedestrian/Transit Mall On Peachtree? How History, Policy, And Legislation Can Recreate A Proud Town, 15 PENN ST. ENVTL. L. REV. 439 (2007)

²⁹⁸ Pub. L. No. 112-10, 125 Stat. 38 (2011).

 $^{^{299}}$ Pub. L. No. 93-205, 87 Stat. 884, codified as amended at 16 U.S.C. \$ 1531 et seq.

 $^{^{300}}$ Id.

³⁰¹ Id. § 1531.

 $^{^{305}}$ Id. § 1533(a).

An early case brought under the ESA is TVA v. Hill.³⁰⁶ The Tennessee Valley Authority (TVA) had begun constructing the Tellico Dam when a species of perch, called the snail darter, was discovered in the area where the dam was being built. The respondent in this case petitioned the Secretary of the Interior to list the snail darter as an endangered species. After receiving comments, the Secretary found that the snail darter habitat would be totally destroyed if the Tellico Dam project was completed and thus, the species was listed as endangered and the species critical habitat was designated for protection. The respondents filed for an injunction to halt the construction of the dam. The Court of Appeals issued the injunction and the U.S. Supreme Court affirmed. The Supreme Court found that the ESA was clear-the Act indicated beyond a doubt that Congress intended endangered species be afforded the highest of priorities.

All federal agencies are required to ensure that any action authorized, funded, or carried out by the agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of the critical habitat of such species.³⁰⁷ If an action is likely to violate the Act's jeopardy prohibition, the agency can apply for an exemption from the Endangered Species Committee [Committee], also known as the "God Squad" because of its control over the fate of a species.³⁰⁸ Once an application for exemption is received, the Committee decides whether or not to grant an exemption from the jeopardy requirements.³⁰⁹

Under the "takings" provision of the Act, any person, whether public or private, is prohibited from "taking" any endangered animal species.310 "Take" is defined broadly to prohibit people "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."311 "Harm" includes any "act that actually kills or injures wildlife."312 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."313 This provision also prohibits anyone from selling, importing, or exporting any protected species.³¹⁴ In addition to protecting animal species, the takings provision also prohibits removal or damage of endangered plant species in knowing violation of any law.315

³⁰⁶ 437 U.S. 153, 98 S. Ct. 2279, 57 L. Ed. 2d 117 (1978).

 313 Id.

The takings provision was tested in Palila v. Hawaii Department of Land and Natural Resources.³¹⁶ In Palila, the Ninth Circuit required the removal of sheep and goats from the critical habitat of an endangered bird, the Palila. The sheep and goats were harming trees that the Palila relied on for food. The court found that "harm" to a species under the ESA does not require death to individual members of the species, nor does it require a finding that habitat degradation is presently driving the species further toward extinction. Habitat destruction that prevents recovery of the species by affecting essential behavior patterns causes actual injury to the species and effects a taking under the Act. Thus, if an act causes habitat modification that would prevent an endangered population from recovering, it is a taking in violation of the ESA.

To provide some flexibility to the strict takings requirements, Congress added an "incidental takings" clause to the ESA.³¹⁷ This clause authorizes the Secretary to issue permits that allow takings incidental to the carrying out of otherwise lawful activities.³¹⁸ A permit will not be issued unless the applicant submits a conservation plan that specifies the likely impact of the incidental taking and details steps the applicant will take to minimize and mitigate these impacts.³¹⁹ A taking must not appreciably reduce the likelihood of survival and recovery of the species in order to be considered incidental.³²⁰

G. WATER QUALITY

1. Introduction

Four major federal programs govern water pollution: (1) the National Pollutant Discharge Elimination System (NPDES), which regulates the discharge of pollutants into navigable streams;³²¹ (2) the Dredge or Fill Program (DFP), which regulates the discharge of dredged or fill material into streams;³²² (3) the Underground Injection Control Program (UIC), which regulates injection of fluids into the ground in order to protect drinking water aquifers;³²³ and (4) the Hazardous

³²¹ See Federal Water Pollution Control Act (FWPCA or Clean Water Act), 33 U.S.C. §§ 1251–1387; 40 C.F.R. §§ 124– 25, 129, 133. The original statute, promulgated in 1948, was known as the Federal Water Pollution Control Act, but with amendments in 1977, it has been commonly referred to as the "Clean Water Act." See Water Laws and Executive Orders, http://water.epa.gov/lawsregs/guidance/index.cfm; and http://water.epa.gov/lawsregs/lawsguidance/.

 322 See Clean Water Act, 33 U.S.C. §§ 1251 et seq.; 40 C.F.R. §§ 230–233.

³²³ See Safe Drinking Water Act, 42 U.S.C. §§ 300f–300j(26); 40 C.F.R. § 146.

^{307 16} U.S.C. § 1536(a)(2).

³⁰⁸ Id. § 1536(e).

³⁰⁹ Id. § 1536(e)(2).

³¹⁰ Id. § 1538(a)(1).

³¹¹ Id. § 1532(19).

^{312 50} C.F.R. § 17.3.

^{314 16} U.S.C.A. § 1538(a)(1)(A).

³¹⁵ Id. § 1538(a)(2)(B).

³¹⁶ 639 F.2d 495, 497 (9th Cir. 1981).

^{317 16} U.S.C. § 1539.

³¹⁸ Id. § 1539(a)(1).

³¹⁹ Id. § 1539(a)(2).

³²⁰ Id. § 1539(a)(2)(B)(iv).

Waste Management Program (HWM), which regulates the generation, transportation, treatment, storage, and disposal of hazardous waste.³²⁴ The permits required under each of these four programs are usually referred to as NPDES, Section 404, UIC, and RCRA, respectively.³²⁵

2. The NPDES Permit Program

The intent of Congress in promulgating the Federal Water Pollution Control Act (FWPCA)³²⁶ was to eliminate the discharge of pollutants into the navigable waters of this nation.³²⁷ Such pollution, originating from "point sources [of conventional pollutants and existing plants]...shall require the application of the best practicable control technology currently available" by July 1, 1977,³²⁸ and the "best available technology economically

³²⁵ The requirements for such permits were consolidated in 40 C.F.R. §§ 122–125. Federal Water Pollution Control Act, as amended, 33 U.S.C. §§ 1251 *et seq*. Safe Drinking Water Act of 1974. 42 U.S.C. §§ 300h *et seq*. Protection of underground sources of drinking water. Executive Order No. 11738, 38 F.R. 25161 (Sept. 10, 1973), "Providing for Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans," 42 U.S.C. § 7606 note. See generally Paul S. Dempsey, Oil Shale and Water Quality: The Colorado Prospectus Under Federal, State & International Law, 58 DENVER L.J. 715 (1981).

 326 Pub. L. No. 80-845, 62 Stat. 1155 (1948), codified as amended at 33 U.S.C. \$ 1251–1387.

³²⁷ Id. § 1251(a)(1).

 328 Id. § 1311(b)(1)(A). In determining what constitutes the best practicable control technology, the EPA shall evaluate, *inter alia*,

the total cost of application of technology in relation to effluent reduction benefits to be achieved from such application...the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact (including energy requirements)....

Id. § 1314(b)(1)(B). *See* Hooker Chems. & Plastics Corp. v. Train, 537 F.2d 620, 630 (2d Cir. 1976). In making this determination, the EPA is not limited to an evaluation of the average technology employed in the involved industry, but may instead base its regulations on data collected from those members of industry using the best technology available. American Petr. Inst. v. EPA, 540 F.2d 1023, 1034 (10th Cir. 1976). Indeed, the technology required in the EPA regulations may be deemed "available" even though no plant in the industry has yet adopted it. Hooker Chems. & Plastics, 537 F.2d at 636.

The EPA also need not evaluate the competitive impact of its regulations. American Petr., 540 F.2d at 1036. The EPA regulations, which permitted consideration only of "technical and engineering factors, exclusive of cost," however, were held excessively restrictive in Appalachian Power Co. v. Train, 545 F.2d 1351, 1359 (4th Cir. 1976). Variance provisions must provide for consideration of the total cost of pollution control, Weyerhauser Co. v. Costle, 590 F.2d 1011, 1036 (D.C. Cir. 1978), and must compare the cost to the benefits of effluent reduction. BASF Wyandotte Corp. v. Costle, 598 F.2d 637, 658-9 (1st Cir. 1979). This principle is consistent with the intent of achievable,"³²⁹ under regulations established by the EPA.³³⁰ The legislation provides for a cooperative federal-state effort to eliminate water pollution, consisting of the EPA's promulgation of effluent limitations,³³¹

Congress that there "be a reasonable relationship between costs and benefits if there is to be an effective and workable program." American Petr. Inst. v. EPA, 540 F.2d at 1037 (quoting from Senate Committee History). Such benefits, however, need not be quantified in monetary terms. *Id*.

Once promulgated, such requirements may be modified by the Administrator of the EPA, with the concurrence of the involved state. See 33 U.S.C. § 1311(g) and § 1319(a)(5)(B).

³²⁹ Id. § 1311(b)(2)(A). The factors to be evaluated by the Administrator in assessing what might constitute the "best available technology" include "the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, [and] non-water quality environmental impact." Id. § 1314(b)(2)(B). See also id. § 1314(b)(4)(B). The Administrator also holds broad authority to promulgate regulations "to control plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw material storage...." Id. § 1314(e).

³³⁰ Id. § 1314. See generally J.T. Begley & John P. Williams, Coal Mine Water Pollution: An Acid Problem With Murky Solutions, 64 KY. L.J. 507, 514–15 (1976); Comment, The Application of Effluent Limitations and Effluent Guidelines to Industrial Polluters: An Administrative Nightmare, 13 HOUS. L. REV. 348, 349–53 (1976) [hereinafter cited as Effluent Limitations and Guidelines]. Try EPA Effluent Limitations Guidelines, available at http://water.epa.gov/scitech/ wastetech/guide/.

³³¹ Effluent limitations are defined as "any restriction...on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources...." 33 U.S.C. § 1362(11). The EPA is required by the FWPCA to establish national effluent limitation guidelines for every major industry. Id. § 1311(b)(1)(A). Such guidelines restrict the amount of specified pollutants that may lawfully be discharged from a point source. Begley & Williams, supra note 329. The purpose of this requirement is to enable the EPA to apply effluent standards uniformly to classes and categories of enterprises rather than on an ad hoc basis. See Effluent Limitations and Guidelines, at 348, 354 (1976). Once promulgated, such regulations are presumed to be applicable and controlling unless the permit applicant convincingly rebuts such application. American Petr. Inst. v. EPA, 540 F.2d 1023, 1030 (10th Cir. 1976), cert. denied, 430 U.S. 922 (1977). A permit may nevertheless be issued on the basis of "sound engineering judgment as to appropriate limitations necessary to carry out the requirements of the Act." Ridgway M. Hall, Jr. The Clean Water Act of 1977, 11 NAT. RESOURCES L. 343, 344 (1978). See also United States Steel, 556 F.2d 822, 844 (7th Cir. 1977); Natural Resources Defense Council, Inc. v. Train, 510 F.2d 692, 709-10 (D.C. Cir. 1974).

Although the EPA effluent limitations, which embrace variance clauses, have been disapproved for new sources, they have been approved for existing sources. See, e.g., Natural Resources Defense Council, Inc. v. EPA, 537 F.2d 642 (2d Cir. 1976). Variance clauses allow the grantor of the permit (either the state or the EPA) to exempt individual point sources from the involved effluent limitations. In determining whether a particular point source is entitled to a variance from effluent limitations, such considerations as the promulgation by a state

 $^{^{324}}$ See Resource Conservation and Recovery Act, 42 U.S.C. $\$ 6901–6992k; 40 C.F.R. $\$ 260–265.

state development of water quality standards,³³² and initially federal (but ultimately state) administration of the NPDES permit program.³³³

The legislation also distinguishes between effluent limitations for existing sources³³⁴ and those for new sources.³³⁵ The standard for new point sources is similar to that imposed on existing sources in that new sources must employ the "best available demonstrated control technology process, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants."³³⁶

The regulatory scheme requires that a point sources operator secure an NPDES permit as a condition precedent to discharging into a navigable stream.³³⁷ The courts have taken a strict view of the permit process, recognizing that it is the principal means of enforcing the legislative intent³³⁸ and refusing to allow the EPA to exempt categories of point sources from the permit requirements of the FWPCA.³³⁹

of water quality standards more stringent than those of the EPA have been held not to be a sufficient justification to support a variance. United States Steel Corp., 556 F.2d at 847.

332 33 U.S.C.A. § 1313.

 333 Id. \S 1342(b). States, however, may leave such regulation under exclusive federal administration, if they so choose, or if they fail to establish a regulatory program approved by the EPA.

³³⁴ 33 U.S.C. § 1311.

335 Id. § 1316(a)(2).

 336 Id. § 1316(a)(1). In promulgating regulations governing new sources, the EPA must consider the cost of achieving compliance thereunder, the nonwater environmental quality impact of the regulations, and the energy requirements of compliance. Id. at § 1316(b)(1)(B). See Hooker Chems. & Plastics Corp. v. Train, 537 F.2d 639, 641 (2d Cir. 1976). Once new point source regulations have been published, all affected industries are deemed to have constructive notice thereof, and such regulations are applicable to all construction commenced after such promulgation. Pennsylvania v. EPA, 618 F.2d 991, 1000 (3d Cir. 1980).

In contrast to the statutory standard governing existing sources, the provision concerning new point sources does not permit variances from the regulatory standards established by the EPA. The Supreme Court has emphasized that such a variance provision would be inconsistent with the congressional intent of "national uniformity and 'maximum feasible control of new source." E.I. duPont de Nemours & Co. v. Train, 430 U.S. 112, 138, 97 S. Ct. 965, 51 L. Ed. 2d 204 (1977). In promulgating regulatory standards, however, the EPA may "distinguish among classes, types, and sizes within categories of new sources." *Id.* at 137.

 337 See 33 U.S.C. §§ 1251(a)(1), 1311(a), 1342(a) (1986 & Supp. 2000).

³³⁸ See Natural Resources Defense Council v. Train, 510 F.2d 692, 706-8 (D.C. Cir. 1974).

Point Source Discharges. Point sources are discharges from man-made sources, such as pipes, tunnels, or ditches. The threshold question of whether a particular pollutant originates from a point source is an important one in the determination of the jurisdictional limits of the FWPCA, as no NPDES permit is required for a nonpoint source discharge. Nonpoint sources, such as oil and gasoline runoff created by rainfall on highways, are difficult to ascribe to a single polluter; therefore, no permit system was deemed feasible for them.³⁴⁰

The FWPCA does not precisely define the term "point source," referring only to "discernable, confined and discrete conveyance...from which pollutants are or may be discharged."³⁴¹ The federal courts have held that the EPA is vested with the authority to define point and nonpoint sources and the definition should be reviewed only after full agency examination.³⁴² The EPA has taken quite a liberal view of point sources, insisting that they consist of any flow containing concentrated pollutants caused by man, regardless of whether the conveyance is man-made or natural.³⁴³

Other federal cases have construed the term "point source" more liberally. For example, the case of *United States v. Oxford Royal Mushroom Products, Inc.*,³⁴⁴ addressed the issue of whether a spray irrigation system, which had been designed to spray wastewater into fields in sufficiently small quantities so as to be absorbed into the ground, constituted a point source where, because of an inadvertent introduction of more water than the system was designed to accommodate, waste water ran into a nearby stream through a break in a berm around the fields. The court found itself unable to conclude as a matter of law that such a discharge did not originate from a point source.

also acknowledged that the "existence of uniform national effluent limitations is not a necessary precondition for incorporating into the NPDES program pollution from agricultural, silvicultural, and storm water runoff point sources." *Id.* at 1379. *But see* 33 U.S.C. § 1311(g). The NPDES regulations may, however, include variance provisions for permits. Frank F. Skillern, *Environmental Law Issues in the Development of Energy Resources*, 29 BAYLOR L. REV. 739, 776 (1977).

³⁴⁰ United States v. Earth Sciences, Inc., 599 F.2d 368, 371 (10th Cir. 1979). The FWPCA, however, does establish some EPA responsibility over nonpoint sources. Each state must specify regions having "substantial water control problems," 33 U.S.C. § 1288(a)(2), and must operate an area wide "waste treatment management planning process," subject to EPA approval. *Id.* § 1288(b)(1). *See* Begley & Williams, *supra* note 330, at 507, 527–28.

341 33 U.S.C. § 1362(14).

 342 Natural Resources Defense Council, Inc. v. Costle, 568 F.2d 1369, 1382 (D.C. Cir. 1977).

³⁴³ Note, The Federal Water Pollution Control Act Amendments of 1972 As Applied to the Surface Mine in West Virginia
—Pollutant Discharge Permit Requirements, 78 W. VA. L. REV.
213, 215 (1976) [hereinafter cited as FWPCA Discharge Requirements].

344 487 F. Supp. 852 (E.D. Pa. 1980).

³³⁹ Natural Resources Defense Council, Inc. v. Costle, 568 F.2d 1369, 1377 (D.C. Cir. 1977); American Iron & Steel Inst. v. EPA, 568 F.2d 284, 307-B (3d Cir. 1977). The District of Columbia circuit court has generally approved the use of a general permit to accomplish essentially the same result. *See* American Iron and Steel, 568 F.2d at 1382–83. The court has

Similarly, the Tenth Circuit U.S. Court of Appeals, in United States v. Earth Sciences, Inc.,345 was confronted with a discharge from a 168,000-gallon reserve sump located in Colorado, which was designed to catch excess leachate or runoff in emergencies and to be a closed system without any pollutant discharge.346 The overflow arose when unusually warm spring temperatures melted snow that filled the reserve sumps to capacity. This overflow and the pollution that resulted from it were deemed by the court to have originated from a point source. Both Oxford Royal Mushrooms and Earth Sciences demonstrate that a standard of strict liability is applicable to such discharges, irrespective of intent or forseeability.347 The EPA, however, has no jurisdiction to require the removal of pollutants that are already present in the water prior to its use. It may insist only that companies treat and reduce pollutants that have been added to the water by the plant processes.348

Navigable Waters. The FWPCA regulates discharges into "navigable" waters, which are defined as "the waters of the United States, including the territorial seas."³⁴⁹ Congress intended that the term "be given the broadest possible constitutional interpretation,"³⁵⁰ and the courts have generously acceded to this request.³⁵¹ In *Earth Sciences*, for example, the pollution in question was discharged into the Rio Seco, a stream located wholly within Costilla County, Colorado, and neither navigable in fact nor used to transport commodities in either interstate or intrastate commerce.³⁵² The court concluded that the only characteristic essential to mak-

³⁴⁷ See United States v. Texas Pipe Line Co., 611 F.2d 345, 347 (10th Cir. 1979); United States v. Earth Sciences Inc., 599 F.2d 368, 374 (10th Cir. 1979). Willful or negligent violations are subject to criminal penalties under 33 U.S.C. § 1319(c)(1) (1976). In fact, the statute imposes penalties for each *day* of unlawful discharge. *Id. See* United States v. Oxford Royal Mushrooms Prods, Inc., 487 F. Supp. 852, 856 (E.D. Pa. 1980).

³⁴⁸ See Appalachian Power Co. v. Train, 545 F.2d 1351, 1377 (4th Cir. 1976). See also United States Steel Corp. v. Train, 556 F.2d 822, 842–43 (7th Cir. 1977); American Petr. Inst. v. EPA, 540 F.2d 1023, 1034–35 (10th Cir. 1976). But see Natural Resources Defense Council, Inc. v. Costle, 568 F.2d 1369 (D.C. Cir. 1977), where the court held that if precise effluent limitations are infeasible, the EPA may instead impose gross pollution discharge requirements. Id. at 1380.

 349 33 U.S.C. § 1362(7). The EPA has expanded that definition to include waters, lakes, rivers, and streams that flow interstate or flow intrastate and are used in interstate commerce. 40 C.F.R. § 401.11(l).

³⁵⁰ S. REP. NO. 1236, 92d Cong., 2d Sess. reprinted in [1972]
 U.S. CODE CONG. & AD. NEWS 3668, 3776, 3822. See FWPCA Discharge Requirements, at 213, 215–16.

 351 See United States v. Oxford Royal Mushroom Prods., Inc., 487 F. Supp. 852, 855 (E.D. Pa. 1880), and cases cited therein.

³⁵² United States v. Earth Sciences, 599 F.2d 368, 374–75 (10th Cir. 1979).

ing a stream "navigable" within the meaning of the FWPCA is that "at least some interstate impact" result therefrom.³⁵³ The stream need not be "navigable in fact."³⁵⁴ The necessary impact was found in the fact that the water collected from the stream was used for agricultural irrigation, with the resulting products sold in interstate commerce.³⁵⁵

In United States v. Texas Pipe Line Co.,³⁵⁶ it was not even clear whether the polluted stream was, at the time of the spill, actually feeding a navigable river. The Tenth Circuit court, nevertheless, held that the polluted stream fell within the FWPCA's definition of "navigable waters." The court reasoned that the tributary was within the intended coverage of the FWPCA because, at least during periods of heavy rainfall, the flow would continue in the Red River.³⁵⁷ The court emphasized that it was the intent of Congress that the coverage of the FWPCA be extended "as far as permissible under the Commerce Clause."³⁵⁸ Thus, presumably, any tributary that is a part of a major river basin would meet the FWPCA's notion of "navigable stream."

Acquisition of the NPDES Permit. The standard imposed under the FWPCA for an unauthorized discharge of pollutants into a navigable stream is one of strict liability regardless of whether, for example, a reserve sump unexpectedly overflows due to spring snow melting at an unusual rate,³⁵⁹ or whether a third party inadvertently ruptures an oil pipeline.³⁶⁰ Moreover, willful or negligent violation of the Act can result in criminal fines ranging between \$2,500 and \$25,000 per day of violation or imprisonment for not more than 1 year, or both.³⁶¹

The FWPCA provides that, after an opportunity for a public hearing, the EPA may issue such a permit for the discharge of any pollutant into navigable waters and include therein such conditions as are necessary to ensure compliance with the requirements of the legislation.³⁶² The FWPCA also provides that administration

³⁵⁹ Earth Sciences, 599 F.2d at 374.

³⁶¹ 33 U.S.C. § 1319(c). A second conviction can result in fines of up to \$50,000 per day of violation, or 2 years imprisonment, or both. *Id.* Federal courts have been held to have broad powers to evaluate whether a defendant in a criminal prosecution has violated an "emission standard" in an analogous context. *See* Adamo Wrecking Co. v. United States, 434 U.S. 275, 285, 98 S. Ct. 566, 573, 54 L. Ed. 2d 538, 549 (1978).

³⁶² 33 U.S.C. § 1342(a). Exclusions from the NPDES permit requirements are set forth in 40 C.F.R. § 122.3. Ordinarily, the permit will specify maximum permissible levels of various pollutants. *Id.* at § 122.45. If the imposition in permits of numerical limitations of effluent discharges is not feasible, the

^{345 599} F.2d 368 (10th Cir. 1979).

³⁴⁶ Id. at 370.

³⁵³ Id. at 375.

 $^{^{354}\,}See$ Oxford Royal Mushroom Prods., 487 F. Supp. at 854–55.

³⁵⁵ Earth Sciences, 599 F.2d 368.

^{356 611} F.2d 345 (10th Cir. 1979).

³⁵⁷ Id. at 346–7.

³⁵⁸ Id. at 347.

³⁶⁰ Texas Pipe Line, 611 F.2d at 346-7.

of the permit process may be assumed by the state for discharges into navigable streams within its jurisdiction.³⁶³ NPDES permits are effective for a fixed term of up to 5 years.³⁶⁴ Once a permit has been issued, "any facility changes, production increases, or changes in character of the discharge necessitate reapplication for a new permit."³⁶⁵ If the permit is violated, it can either be revoked or amended,³⁶⁶ or the violator may be prohibited from continuing the discharge.

3. The Dredge or Fill Permit Program

The Clean Water Act is the primary authority for federal wetlands regulation.³⁶⁷ Under Section 404, a permit is required to discharge dredged or fill material into wetlands.³⁶⁸ Section 404 of the Clean Water Act gives the U.S. Army Corps of Engineers jurisdiction over wetlands management.³⁶⁹

The acquisition of a Section 404 permit is a condition precedent to the lawful discharge of dredged or fill material into waters of the United States.³⁷⁰ The Section

The state is prohibited from issuing an NPDES permit if certain specified circumstances exist. See 40 C.F.R. § 122.4. Among such conditions is the circumstance where a new discharger would cause or contribute to the violation of water quality standards. Id. at § 122.4(a). Additionally, the EPA may veto the issuance of any state NPDES permit if the EPA feels that the granting of such permit would be inconsistent with the FWPCA. If the state's water quality standards are more stringent than those standards that are specified in the EPA's applicable effluent limitations, then the more stringent state standards must be incorporated into the NPDES permit. 33 U.S.C. § 1341(a)(1). Begley & Williams, supra note 330, at 507, 519. In fact, no NPDES permit may be issued without either the state's certification or its waiver thereof. 33 U.S.C. § 1341(d). FWPCA Discharge Requirements, at 213, 221.

³⁶⁴ 40 C.F.R. § 122.46(a).

³⁶⁵ Begley & Williams, *supra* note 330, at 507.

 366 33 U.S.C. §§ 1319, 1342(b)(1); 40 C.F.R. §§ 122.62, 122.64.

³⁶⁷ Conservation Law Found. v. Federal Highway Admin., 827 F. Supp. 871, 881, 885–86 (D. R.I. 1993).

368 33 U.S.C. § 1344.

 370 40 C.F.R. § 232.3(a) & (b).

404 permit process is simultaneously governed both by Army Corps of Engineers regulations³⁷¹ and EPA regulations.³⁷² The FWPCA prohibits discharge of dredged or fill material into navigable waters where the EPA concludes that such discharge will adversely affect municipal water supplies; shellfish beds; or fishery, wildlife, or recreational areas.³⁷³ Such discharges are prohibited if there is a practicable alternative that would have a less deleterious impact upon the ecosystem, taking into account the construction cost, technology, and logistics in light of the project's overall purposes.³⁷⁴

As an example of such a proceeding in a transit context, Advocates for Transportation Alternatives v. U.S. Army Corps of Engineers,³⁷⁵ involved an effort by MBTA to resume commuter rail service on the Greenbush Line. MBTA applied for a permit for the discharge of dredged or fill material under Section 404 of the Clean Water Act. In response, the U.S. Army Corps of Engineers prepared an EA. It concluded that an EIS was unnecessary because the Corps' decision to approve the permit was "not a major federal action significantly affecting the quality of the human environment." However, because the project might adversely affect sites eligible for listing on the National Register of Historic Places, MBTA was required to comply with the consultation procedures of Section 106 of the National Historic Preservation Act.³⁷⁶ Prior to issuing the FONSI and the Permit, the Corps concluded that the Greenbush Project would have adverse effects on 27 historic properties and 34 historic districts. The Section 106 alternatives analysis indicated that the potential impact of other alternatives would be less than the Greenbush Commuter Rail option, "but that these other alternatives failed to meet the transit ridership requirement"377 of the restored Greenbush Line. The Corps, Preservation Officer, Federal Advisory Council on Historic Preservation, and MBTA executed a programmatic agreement requiring MBTA to take specified mitigation measures to reduce the adverse impact on the historical properties. The court held that plaintiffs failed to show a substantial possibility of significant environmental impact, and that the Corps' decision to issue the permit was not arbitrary or capricious under the Administrative Procedure Act and was procedurally adequate under the Clean Water Act and NEPA.378

The term "dredged material" is defined as "material that is excavated or dredged from waters of the United

 372 40 C.F.R. pt. 230. Conservation Law Found. v. Federal Highway Admin., 827 F. Supp. 871, 885–86 (D. R.I. 1993).

³⁷⁴ Sylvester v. U.S. Army Corps of Eng'rs, 882 F.2d 407,
409-10 (9th Cir. filed 1989); La. Wildlife Fed'n v. York, 761
F.2d 1044, 1047-48 (5th Cir. 1985);

376 16 U.S.C § 470f.

 377 Advocates for Transportation Alternatives, 453 F. Supp. 2d at 297.

³⁷⁸ Id. at 313–14.

EPA may prescribe gross reductions in pollution discharges. Natural Resources Defense Council, Inc. v. Costle, 568 F.2d 1369, 1380 (D.C. Cir. 1977). See generally Ridgway M. Hall, Jr., *The Clean Water Act of 1977*, 11 NAT. RESOURCES L. 343, 365–69 (1978).

³⁶³ 33 U.S.C. § 1342(b) (1986). In fact, the states are encouraged to assume administration of the NPDES program. See Effluent Limitations and Guidelines, at 348, 352; FWPCA Discharge Requirements, at 213. Prior to assuming such administration, however, the state must first create a water pollution control program, which satisfies the standards established by the FWPCA. 33 U.S.C. § 1342(b) (1986). See generally Frank F. Skillern, Environmental Law Issues in the Development of Energy Resources, 29 BAYLOR L. REV. 739, 772 (1977).

³⁶⁹ Rapanos v. United States, 547 U.S. 715, 126 S. Ct. 2208, 165 L. Ed. 2d 159 (2006), addressed the issue of wetlands under the Clean Water Act. Four justices argued in favor of a more restrictive reading of the term "navigable waters."

³⁷¹ 33 C.F.R. pts. 320–29.

³⁷³ 33 U.S.C.A. § 1344(c); see 40 C.F.R. §§ 230.10(b) & (c).

³⁷⁵ 453 F. Supp. 2d 289 (D. Mass. 2006).

Federal wetland protection has taken a number of forms. Since 1989, the U.S. government has embraced a "no-net-loss" policy toward wetlands, requiring wetland loss be mitigated by upgrading wetlands elsewhere. Executive Order 11990 directs federal agencies to avoid possible adverse impacts associated with the destruction or modification of wetlands and to avoid undertaking or providing assistance for new construction located in wetlands.³⁸¹ The FHWA regulations have established a preference for wetland mitigation banking in mitigating wetlands impacts caused by federally-funded highway transportation projects.³⁸² In mitigation banking, wetlands are restored, created, or enhanced in order to provide compensatory mitigation for unavoidable impacts to wetlands caused by current or past federallyfunded highway projects.383

H. THE RESOURCE CONSERVATION AND RECOVERY ACT

The Resource Conservation and Recovery Act of 1976 (RCRA) is a waste management regime aimed at controlling hazardous and solid wastes from cradle to grave or from generation to disposal.³⁸⁴ RCRA employs cradleto-grave regulations that govern the generation, transportation, storage, and disposal of waste products and aim to prevent releases of waste into the environment. RCRA is particularly aimed at controlling land-based environmental contamination.

Congressional concern about unsound solid waste management practices led to the promulgation of the RCRA.³⁸⁵ The basic structure of RCRA was established

 381 Protection of Wetlands, 42 Fed. Reg. 26,961 (May 24, 1977).

³⁸³ *Id.* at 82,915.

³⁸⁴ 42 U.S.C.A. §§ 6901 *et seq.* The implementing regulations are at 40 C.F.R. pts. 124, 260–272. RCRA was enacted as a replacement of the Solid Waste Disposal Act. In 1984, RCRA was comprehensively amended to address the handling and disposal of hazardous waste. The Emergency Planning and Community Right to Know Act of 1986 requires that facilities report the storage of hazardous chemicals to various state and community agencies. MARTIN COLE & CHRISTINE BROOKBANK, STRATEGIES TO MINIMIZE LIABILITY UNDER FEDERAL AND STATE ENVIRONMENTAL LAWS (Transit Cooperative Research Program, Legal Research Digest No. 9, Transportation Research Board, 1998).

³⁸⁵ 42 U.S.C. §§ 6901. Solid waste is defined by the RCRA as: "any garbage, refuse, sludge...and other discarded mate-

in 1976 and continues to the present. The Act established a system for identifying and listing hazardous wastes; a cradle-to-grave tracking system; standards for generators and transporters of hazardous wastes and for operators of treatment, storage, and disposal facilities (TSD); a permit system to enforce these standards; and a procedure for delegating to states the administration of the permitting program.³⁸⁶ Under RCRA, waste may be controlled under one of two programs—the Hazardous Waste Management Program or the Solid (nonhazardous) Waste Disposal Program.³⁸⁷

1. The Hazardous Waste Management Program

The Hazardous Waste Management Program requires the EPA to promulgate regulations that establish criteria for identifying hazardous waste and to list particular wastes that are found to be hazardous based on characteristics such as toxicity, persistence, flammability, corrosiveness, and other characteristics.³⁸⁸ Once a waste is identified, anyone who generates, transports, treats, stores, or disposes of that waste is subject to the requirements of the RCRA Hazardous Waste Management Program.

Generators are responsible for determining if their waste is hazardous.³⁸⁹ Any shipments of hazardous waste are given an identification number for the waste to ensure that the waste can be traced and that it reaches its intended destination.³⁹⁰ Generators are also subject to recordkeeping requirements to identify the quantities and constituents of hazardous waste that may be harmful to human health.³⁹¹

rial...resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include...domestic sewage,...irrigation return flows or industrial discharges which are point sources subject to permits under § 402 of the Federal Water Pollution Control Act...." *Id.* § 6903(27) (1998). Hazardous waste is defined as any solid waste that may: "(A) cause, or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitation 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." *Id.* at § 6903(5).

³⁸⁶ ROBERT PERCIVAL, CHRISTOPHER H. SCHROEDER, ALAN S. MILLER & JAMES P. LEAPE. ENVIRONMENTAL REGULATION: LAW, SCIENCE AND POLICY 209 (2d. ed. 1996).

³⁸⁷ The Resource Conservation and Recovery Act of 1976. Pub. L. No. 94-580, 90 Stat. 2795 (Oct. 21, 1976); 40 C.F.R. pts. 124, 260–272.

388 42 U.S.C.A. § 6921(a).

³⁹¹ Id. § 6922(a)(1).

^{379 40} C.F.R. § 232.2.

^{380 40} C.F.R. § 230.3(s).

³⁸² Mitigation of Impacts to Wetlands and Natural Habitat, 65 Fed. Reg. 82,913 (Dec. 29, 2000).

The EPA is directed to establish criteria for designating the characteristics of hazardous waste, "taking into account toxicity, persistence, and degradability in nature, potential for accumulation in tissue, and other related factors such as flammability, corrosiveness, and other hazardous characteristics." 42 U.S.C. § 6921(a).

³⁸⁹ Id. § 6922.

³⁹⁰ Id. § 6922(a)(2).

Transporters are required to keep records of any shipments of hazardous waste they transport.³⁹² Transporters must ensure that any wastes they transport are properly labeled.³⁹³ Transporters of hazardous waste are not only subject to RCRA requirements but must also comply with the Hazardous Materials Transportation Act³⁹⁴ and any regulations promulgated by the Secretary of Transportation.³⁹⁵

The EPA is required to set standards for TSD facilities.³⁹⁶ Such standards include recordkeeping requirements and provisions for reporting, monitoring, and inspection to ensure that proper steps are being taken to ensure the waste is handled safely.³⁹⁷ The Hazardous Materials Transportation Act also prohibits land disposal of certain specified hazardous wastes.³⁹⁸ Operators of TSD facilities must obtain a permit from the EPA.³⁹⁹

Certain reclaimable waste products are exempt from RCRA, including proper reclamation of several generated by transit providers, such as spent lead-acid batteries, industrial ethyl alcohol, and used motor oil.⁴⁰⁰ RCRA also allows states to operate and enforce their own hazardous waste management program. For example, many states regulate aboveground and underground storage tanks through registration requirements. Many transit providers use such tanks to store fuel and oil for their vehicles. Leaks can contaminate the soil or groundwater or surface water near the tank site.⁴⁰¹

2. The Solid Waste Disposal Program

The objective of the Solid Waste Disposal Program is to assist in developing and encouraging methods for the disposal of solid (nonhazardous) waste that are environmentally sound and maximize valuable resources.⁴⁰² The Program requires the EPA to establish guidelines for the development of state waste disposal plans, including prohibiting open dumping, except in landfills, and establishing criteria for sanitary landfills to protect human health and the environment from potential adverse effects from disposal of solid waste.⁴⁰³

3. Hazardous Materials Transportation

The Hazardous Materials Transportation Act⁴⁰⁴ regulates the movement of hazardous materials, impos-

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<sup>392</sup> 42 U.S.C. § 6923.
<sup>393</sup> Id. at § 6923(a)(2).
<sup>394</sup> Pub. L. No. 93-633, 88 Stat. 2156 (1975).
<sup>395</sup> 42 U.S.C. § 6923 .
<sup>396</sup> 42 U.S.C. § 6924 .
<sup>397</sup> Id. § 6924(a)(1).
<sup>398</sup> Id. § 6924.
<sup>399</sup> 42 U.S.C. § 6925.
<sup>400</sup> 40 C.F.R. § 266.80. COLE & BROOKBANK, supra note 384.
<sup>401</sup> Id. at 7.
<sup>402</sup> 42 U.S.C. § 6941.
<sup>403</sup> 42 U.S.C. § 6944.
<sup>404</sup> 49 U.S.C. § 5101 et seq.
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ing specific requirements upon the classification, packaging, transportation, and handling of such materials, as well as incident reporting.⁴⁰⁵ Usually, transit providers are not engaged in the transportation of hazardous material, but they may be shippers or receivers of such material.

I. THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT

1. Overview of CERCLA

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)⁴⁰⁶ as a companion to RCRA.⁴⁰⁷ While RCRA is aimed at prospectively regulating the treatment, storage, and disposal of hazardous wastes, CERCLA is primarily a retroactive statute intended to impose strict liability on parties responsible for the release or threat of release of hazardous substances.⁴⁰⁸ Its purposes are to clean up hazardous waste sites and create a broad definition of parties strictly liable for cleanup costs.⁴⁰⁹

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406 42 U.S.C. §§ 9601 et seq.
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⁴⁰⁷ Superfund legislation and regulations are summarized on the EPA Web site at http://www.epa.gov/superfund/policy/.

 408 COLE & BROOKBANK, supra note 384. Hazardous Substance is defined as:

(A) any substance designated pursuant to section 311(b)(2)(A) of the Federal Water Pollution Control Act. Pub. L. 92-500, 88 Stat. 816 (1972), codified as amended at 33 U.S.C. § 1321(b)(2)(A); (B) any element, compound, mixture, solution, or substance designated pursuant to section 102 of this Act (42 U.S.C. § 9602); (C) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act, Title II of Pub. L. 89-272, 79 Stat. 992 (1965) as amended, codified as amended at 42 U.S.C. § 6921; (D) any toxic pollutant listed under section 307(a) of the Federal Water Pollution Control Act (33 U.S.C. §1317); (E) any hazardous air pollutant listed under section 112 of the Clean Air Act. Pub. L. 88-206, 77 Stat. 392 (1963), codified as amended at 42 U.S.C. § 7412; and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to Sections of the Toxic Substances Contract Act, Pub. L. 94-469, 90 Stat. 2003 (1976), codified as amended at 15 U.S.C. § 2606. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

42 U.S.C.A. § 9601(14).

⁴⁰⁹ Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. No. 96-510, 94 State 2767, § 101 et seq., codified as amended at 42 U.S.C. § 9601 et seq. General Electric Co. v. Litton Industrial Automation Systems, 920 F.2d 1415, 1422 (8th Cir. 1990) (the "two...main purposes of CERCLA" are to "prompt cleanup of hazardous waste sites and [to impose] cleanup costs on the responsible party"); Meghrig v. KFC Western, 516 U.S. 479, 481, 116 S. Ct. 1251, 1253, 134 L. Ed. 2d 121, 125 (1996). COLE & BROOKBANK, *supra* note 384.

⁴⁰⁵ Id., 49 C.F.R. subtit. B, ch. 1, subch. C, pts. 171–180.

EPA has regulatory jurisdiction over CERCLA and cleans orphan sites when potentially responsible parties are unavailable or fail to act.⁴¹⁰ The statute can be divided into four basic elements: information collection, federal authority to respond and clean up hazardous substances, the Hazardous Substance Response Trust Fund (Superfund), and liability for responsible parties.⁴¹¹

CERCLA requires any person in charge of a "facility" to notify the National Response Center (NRC) of any hazardous substance release in excess of those permitted by the statute.⁴¹² This notification requirement allows the EPA to monitor problem areas throughout the country and develop suitable response plans.⁴¹³ CERCLA also gives the EPA broad authority to request and access information relevant to the release or threat of release of hazardous substances.⁴¹⁴ This authority allows the EPA to enter facilities and obtain samples of suspected hazardous substances or other pollutants.⁴¹⁵ The access and information provisions of CERCLA are the first steps leading to the removal and remediation of hazardous substances.

Response and cleanup of hazardous wastes begins with the authority Congress granted to the President, and subsequently delegated to the EPA, to remove or take remedial action in response to the release or threatened release of hazardous substances.⁴¹⁶ Federal action to clean up hazardous substances must be consistent with the National Consistency Plan (NCP), the EPA's guide for cleanup activities.⁴¹⁷ The NCP includes the National Hazardous Response Plan (NHRP), which establishes "procedures and standards for responding to releases of hazardous substances, pollutants, and con-

 412 42 U.S.C. § 9603(a). Facility is defined as:

(A) any building, structure, installation, equipment, pipe or pipeline...well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or (B) any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel.

⁴¹⁷ 42 U.S.C. § 905; FERREY, *supra* note 410, at 307. The NCP is also referred to as the National Oil and Hazardous Substances Pollution Contingency Plan. The NCP was originally enacted to provide a guide to the federal government for responding to oil spills and releases of hazardous substances. The NCP has expanded over the years to include responsive strategies consistent with the Clean Water Act of 1972 and the Oil Pollution Act of 1990.

taminants....^{"418} The NCP also includes the Hazard Ranking System (HRS), which assesses the degree of risk to the environment and human health at facilities and contaminated sites.⁴¹⁹ The HRS screening process is the mechanism by which the EPA ultimately lists uncontrolled waste sites on the National Priorities List (NPL).⁴²⁰ The NPL is a listing of facilities posing health and environmental threats that may warrant the EPA's further examination.⁴²¹ These provisions granting the EPA federal authority to address the releases or potential releases of hazardous substances lead to the mechanisms to fund cleanups and enforcement against liable parties.

CERCLA established the Superfund, which finances the costs of governmental response actions and the cleanup costs of private parties where the responsible party cannot be identified or is unable to act.⁴²² The trust was originally funded primarily by direct taxes on sales from petroleum and some chemical companies.⁴²³ In 1986, Congress amended CERCLA through the Superfund Amendments and Reauthorization Act (SARA),⁴²⁴ which:

• [S]tressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites;

http://www.epa.gov/superfund/programs/npl_hrs/hrsint.htm.

The HRS uses a scoring system to rank potentially harmful sites. Numerical values are assigned to a site based upon factors in three categories:

• likelihood that a site has released or has the potential to release hazardous substances into the environment;

• characteristics of the waste (e.g., toxicity and waste quantity); and

• people or sensitive environments (targets) affected by the release.

Id.

http://www.epa.gov/superfund/programs/npl_hrs/hrsint.htm. *Id*.

⁴²¹ EPA, *NPL Site Listing Process* (Last updated on Tuesday, Oct. 21, 2003), http://www.epa.gov/superfund/sites/ /npl/npl_hrs.htm. Listing on the NPL does not necessarily mean the EPA will order a cleanup response at the site. Rather, the NPL is primarily an informational tool, which allows states and the public to monitor the listed sites and determine if a cleanup response is necessary.

⁴²² 42 U.S.C. § 9611–9612; FERREY, *supra* note 410, at 310.

⁴²³ John C. Cruden, *CERCLA Overview*, ALI-ABA 397, 399 (June 25–29, 2001),

http://www.cba.org/cba/cle/PDF/ENV12_cruden_paper.pdf; FERREY, *supra* note 410, at 310. Total funding was set at \$1.6 billion in 1981.

⁴¹⁰ See United States v. Atlantic Research Corp., 551 U.S. 128, 127 S. Ct. 2331, 168 L. Ed. 2d 28 (2007); STEVEN FERREY, ENVIRONMENTAL LAW: EXAMPLES AND EXPLANATIONS 302 (Aspen 1997).

 $^{^{411}}$ United States v. Atlantic Research Corp., 551 U.S. 128 (2007).

⁴² U.S.C. § 9601(9).

⁴¹³ FERREY, *supra* note 410, at 303.

⁴¹⁴ 42 U.S.C. § 9604(e); FERREY, *supra* note 410, at 303.

^{415 42} U.S.C. § 9604(e)(4).

^{416 42} U.S.C. § 9604(a).

^{418 42} U.S.C. § 9605(a).

⁴¹⁹ 42 U.S.C. § 9605(c); EPA, Introduction to the HRS, Superfund Program,

⁴²⁰ EPA, Introduction to the HRS, Superfund Program (last modified Mar. 28, 2001),

⁴²⁴ EPA, *SARA Overview*, http://www.epa.gov/superfund/ policy/sara.htm. Congress also increased the trust to \$8.5 billion.

• [P]rovided new enforcement authorities and settlement tools;

• [I]ncreased state involvement in every phase of the Superfund program;

• [I]ncreased the focus on human health problems posed by hazardous waste sites;

• [E]ncouraged greater citizen participation in making decisions on how sites should be cleaned up; and

 \bullet [I] ncreased the size of the trust fund to \$8.5 billion. ^{425}

CERCLA authorizes the EPA to use Superfund monies when there is a release or "substantial threat" of release of any hazardous substance into the environment.⁴²⁶ Monies may be spent to "remove" or "provide for remedial action" in response to the hazardous substance.⁴²⁷

Pursuant to the NCP, the EPA's process for cleaning up hazardous wastes initially requires that the contaminated site be listed on the NPL.⁴²⁸ Next, the EPA must follow a three-step process to determine the proper remedy for the listed site: (1) prepare a Remedial Investigation and Feasibility Study (RI/FS) to determine the degree of contamination and possible remedial alternatives;⁴²⁹ (2) develop a plan to remedy the contaminated site;⁴³⁰ and (3) review public comments and consult with affected state and other agencies.⁴³¹ After complying with this process, the EPA makes its final decision entitled the Record of Decision (ROD), which is

the cleanup or removal of released hazardous substances from the environment, such actions as may be necessary taken in the event of the threat of release of hazardous substances into the environment, such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances, the disposal of removed material, or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which would otherwise result from a release or threat of release....

42 U.S.C. § 9601(23).

Remedial action is defined as:

Those actions consistent with permanent remedy taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so they do not migrate to cause substantial danger to present or future public health or welfare or the environment....

42 U.S.C.A. § 9601(24).

428 Cruden, *supra* note 423, at 397, 405.

 429 See 40 C.F.R. 300.430(a), (d), and (e), for a discussion of the purpose of the RI/FS.

⁴³⁰ 40 C.F.R. 300.430(a)(2).

⁴³¹ Cruden, *supra* note 423, at 397,405.

available for public comment prior to implementation of the decided remedial action.⁴³²

CERCLA authorizes three means of cleaning up a contaminated site: (1) the EPA may conduct its own cleanup using Superfund money; (2) the EPA may order the responsible parties to carry out the cleanup, or (3) third parties may clean up the site and recover costs incurred from potentially responsible parties (PRPs), or file a claim from reimbursement from the Superfund.433 The EPA may order PRPs to clean up hazardous substances when there "may be an imminent and substantial endangerment to the public health or welfare or the environment because of the actual or threatened release of hazardous substance from a facility...."434 This order is called the Unilateral Administrative Order (UAO) and failure to comply with a UAO without "sufficient cause" can result in fines, damages plus interests, and further orders to conduct the cleanup.435

CERCLA liability is essentially based on four requirements: (1) the release or substantial threat of release; (2) of a hazardous substance; (3) from a vessel or facility; and (4) caused by a responsible party (i.e., PRP).⁴³⁶ PRPs consist of four classes of persons: (1) current owners and operators of facilities where hazardous substances are released or threatened to be released, (2) owners and operators of facilities at the time substances were disposed, (3) persons who arranged for transportation or disposal or treatment of such substances,⁴³⁷ and (4) persons who accepted such substances for transport

⁴³³ The Penn Central R.R. Corp. v. United States, 862 F. Supp. 437 (1994); EPA, *Superfund (CERCLA) Enforcement* (last modified Thursday, Oct. 16, 2003), http://www.epa.gov/ compliance/cleanup/superfund/getdone/index.html.

⁴³⁴ 42 U.S.C. § 9606(a); EPA, *Superfund (CERCLA) Enforcement* (last modified Thursday, Oct. 16, 2003), http://www.epa.gov/compliance/cleanup/superfund/getdone/ index.html. "Imminent" in the statute refers to the risk of harm and not the actual harm itself. "[T]he imminence of a hazard does not depend on the proximity of the final effect but may be proven by the setting in motion of a chain of events which would cause serious injury." United States v. Hardage, Civ-80-1031-W slip op. at 3, 4, 1982 U.S. Dist. Lexis 17854 (W.D. Okla. Dec. 2, 1982).

⁴³⁵ 42 U.S.C. § 9606(a)(b); EPA, Superfund (CERCLA) Enforcement, http://www.epa.gov/compliance/cleanup/ superfund/getdone/index.html. Sufficient cause can be an "[o]bjectively reasonable, good faith belief that one has a valid defense." United States v. Vertac. Chem. Corp., 489 F. Supp. 870, 885 (E.D. Ark. 1980), quoting Reserve Mining Co. v. EPA, 514 F.2d. 492, 529 (8th Cir. 1975).

⁴³⁶ Cruden, *supra* note 423, at 397, 409–10.

⁴³⁷ Liability is extended to any person who arranges for the disposal or treatment of hazardous substances that the person owned or possessed, or who by contract or agreement otherwise arranged for disposal or treatment, or arranged with a transporter for disposal or treatment, of hazardous substances owned or possessed by such person. 42 U.S.C. § 9607(a)(3). COLE & BROOKBANK, *supra* note 384, at 9–10.

 $^{^{425}}$ Id. SARA also requires the EPA to adjust the HRS to more accurately reflect risk to the environment and human health. Id.

⁴²⁶ 42 U.S.C. § 9604(a)(1).

⁴²⁷ *Id*. Removal actions are defined as:

^{432 42} U.S.C. § 9617(a); 40 C.F.R. 300.430(f)(1)(ii).

Transit providers are more likely to be named as a PRP in CERCLA litigation as a generator, typically for problems surrounding the disposal of used lead-acid batteries or used motor oil.439 However, transportation companies have also been held liable as owners and operators.⁴⁴⁰ The Fifth Circuit U.S. Court of Appeals held several transportation companies liable under CERCLA for the cleanup costs resulting from the rupture of the companies' tanker truck, holding that a tanker truck and the truck terminal is a facility within the CERCLA definition.441 The court based its analysis upon CERCLA's statutory history and congressional intent to extend liability beyond waste disposal sites to include mere owners or operators of CERCLA facilities.442 The court also emphasized that congressional intent was to extend CERCLA to hazardous substance releases, not just disposals at toxic waste facilities.443

Though liability is strict, a transit provider may avail itself of certain affirmative defenses if applicable, such as an act of God, an act of war, or an act or omission of a third party.⁴⁴⁴ CERCLA also excludes from its definition of hazardous substances "petroleum, including crude oil" so long as the use of petroleum does not result in elevated levels of hazardous substances.⁴⁴⁵ Some transit providers may be eligible to take advantage of the service station dealers exemption for the release of recycled oil.⁴⁴⁶ Under the condemnation defense, CERCLA also exempts from liability a governmental entity that acquires contaminated property involuntarily.⁴⁴⁷ Under the "due diligence" or "innocent

⁴³⁹ COLE & BROOKBANK, supra note 384, at 11.

⁴⁴⁰ See Uniroyal Chem. Co. v. Deltech Corp., 160 F.3d 238 (5th Cir. 1998).

442 Id. at 257.

⁴⁴³ Id. at 249–50.

 444 42 U.S.C. § 9607(b). The third party defense is applicable only if it has no connection, contractual or otherwise, with the party seeking to avoid liability. COLE & BROOKBANK, *supra* note 384, at 12.

 445 Natural gas is not excluded. 42 U.S.C. § 9601(14).

 446 A service station dealer is "any person...where a significant percentage of the gross revenue of the establishment is derived from the fueling, repairing, or servicing of motor vehicles." 42 U.S.C. § 9614(c)(1).

⁴⁴⁷ The rationale is that unlike private parties, a transportation agency may have little choice as to which property to acquire for expansion. The defense is available to a governmental entity that has the power of eminent domain, whether or not condemnation proceedings took place. COLE & BROOKBANK, *supra* note 384, at 14.

landowners" defense, a landowner may be shielded from liability if it can prove (1) another party was the sole cause of the contamination, (2) the other responsible party must not have caused the contamination via a contractual agency or employment relationship with the owner, and (3) the owner must have exercised due care to guard against the foreseeable acts of the third party.⁴⁴⁸ Transit providers that are state agencies may also be eligible for the 11th Amendment shield against a federal court claim brought by a private individual.⁴⁴⁹

If the defenses do not provide immunity from liability, the defendant must then defend itself in the apportionment phase of the litigation. The cleanup costs of a heavily contaminated site may run into the several millions of dollars, for which any single defendant will try to shift to other PRPs. CERCLA allows any PRP to seek contribution from any other PRP.⁴⁵⁰ Though liability under CERCLA may be joint and several, the court may allocate costs among liable parties using equitable factors. The following are some of the factors that have been used by courts to apportion liability:

• The ability of a party to prove that its contribution to the release or disposal of a hazardous substance can be distinguished from those of other parties;

• The amount of the hazardous substance involved in cleanup at the site;

• The toxicity of the hazardous substance;

• The degree of involvement by the parties in the generation, transportation, treatment, storage, or the disposal of hazardous substance;

• The degree of care exercised by the parties in handing the hazardous substance;

• The degree of cooperation by the parties with governmental officials to prevent harm to public health or the environment;

• The financial resources of the party;

• The party's knowledge of the environmental problems at the facility;

• The party's knowledge of the environmental risks;

• The party's financial interest in the site;

 \bullet The party's efforts to prevent harm to the public; and

 \bullet The party's good faith attempts to reach a settlement. 451

The EPA has a strong interest in encouraging settlement between PRPs and cleaning up hazardous substance releases as timely and as efficiently as possible.

 $^{^{438}}$ 42 U.S.C. § 9607(a). Liability is extended to any person who accepts any hazardous substance for transport to a disposal or treatment facility or sites selected by such a person from which there is a release or threatened release. *Id.* at § 9607(a)(4).

⁴⁴¹ *Id*. at 240.

⁴⁴⁸ Courts examine whether the landowner followed commercially reasonable and customary practices, the special knowledge or experience of the landowner, the relationship between the purchase price and the actual fair market value of the property, the information that was reasonably ascertainable, and how easily the contamination was detectable. *Id.* at 14.

⁴⁴⁹ Id. at 12.

^{450 42} U.S.C. § 9613(f)(1).

⁴⁵¹ COLE & BROOKBANK, supra note 384, at 16-17.

One mechanism the EPA uses to achieve this end is Orphan Funding.⁴⁵² In cases involving numerous PRPs, such as industrial dumps or landfills, the EPA provides "orphan share funding" in place of the insolvent or obsolete PRPs.⁴⁵³ The EPA uses Superfund monies to reflect the portion of orphan shares and the identifiable and solvent PRPs can settle for a more equitable and realizable amount for cleanup.

Because CERCLA liability is strict, joint, and several, and triggered by mere land ownership, environmental due diligence must be integrated into all potential real property transactions.⁴⁵⁴ The scope of a due diligence investigation may depend on the size of the transaction but "it is important to keep in mind that even a relatively small transaction where the target company seems free from environmental concerns may result in substantial and unanticipated costs if potential liabilities are not properly assessed." ⁴⁵⁵ Environmental due diligence can be divided into two components: (1) the document and file review, and (2) the environmental audit.⁴⁵⁶

The document and file review should determine whether the real property has any history of noncompliance with environmental regulations or whether internal documents describe any potential environmental problems.⁴⁵⁷ The environmental audit can consist of several phases depending on potential or known environmental problems.⁴⁵⁸ The Phase-One audit is a simple onsite investigation to discover potential environmental liabilities.⁴⁵⁹ If the Phase-One audit results in the discovery of environmental issues, a subsequent Phase-Two and Phase-Three audit should be completed to determine the extent of the problem and whether the transaction should proceed.⁴⁶⁰ Transit providers would be well advised to carefully examine any real property before acquiring it.

2. The Paoli Railroad Yard: A Case Study

The cost and complexity of CERCLA litigation is illustrated in the lawsuits filed against the Southeastern Pennsylvania Transportation Authority (SEPTA), the National Railroad Passenger Corporation (Amtrak), and the Consolidated Rail Corporation (Conrail) [collectively referred to as the defendants] in the Paoli Yards dis-

⁴⁵⁴ Joyce S. Schlesinger, Environmental Due Diligence in Business and Real Estate Transactions, in Environmental Regulation 2012 (2013).

⁴⁵⁵ Gary M. Lawrence, Overview of Environmental Due Diligence, Due Diligence in Business Transactions, New Solutions to Environmental Problems in Business and Real Estate Deals, LAW JOURNAL PRESS (2001).

- 459 Id.
- 460 Id.

pute, heard multiple times by the U.S. district court for the eastern district of Pennsylvania and the Third Circuit U.S. Court of Appeals.461 The Paoli Railroad Yard [the Yard] dates back to 1915, when a facility to repair steam-powered locomotives was built on the site.⁴⁶² Beginning around 1940, polychlorinated biphenyls (PCBs) were handled and spread on the ground in the course of maintaining electric cars and servicing train transformers.463 The Yard was owned and operated by the Pennsylvania Railroad from 1939 to 1967. In 1967, that company merged with the New York Central to become Penn Central, which fell into bankruptcy in 1970 and was reorganized with several other northeastern railroads to become Conrail.464 SEPTA, Amtrak, and Conrail all owned or operated at the Yard beginning in 1976. Amtrak had owned the Yard since 1976; Conrail operated the Yard between 1976 and 1983; and SEPTA had operated the Yard since 1983. In 1982, Conrail and SEPTA entered into an agreement that transferred Conrail's right to operate the Yard to SEPTA. The transfer agreement provided that Conrail would indemnify SEPTA for any liability it incurred for "any injury or damage to any person or property' or 'contamination of the environment.""465 In its 1983 settlement agreement with Conrail, SEPTA agreed it would "indemnify and hold Conrail harmless from any and all liability...arising out of the environmental conditions at Paoli Shop or Paoli Yard."466 Due diligence should have revealed that Pennsylvania environmental authorities had discovered PCBs at Paoli Yards in 1979, 3 years before SEPTA acquired it.

The Commonwealth of Pennsylvania first discovered PCBs and other contaminants in the Yard in $1979.^{\rm 467}$

⁴⁶¹ See, e.g., In Re: Paoli R.R. Yard PCB Litig., 221 F.3d 449 (3d Cir. 2000); Brown v. SEPTA (In Re: Paoli R.R. Paoli Yard PCB Litig.), 113 F.3d 444 (3d Cir. 1997); In Re Paoli R.R. Yard PCB Litig., 35 F.3d 717 (3d Cir. 1994),; In the Matter of Penn Central Transp. Co., 944 F.2d 164 (3d Cir. 1991); In Re Paoli R.R Yard PCB Litig., 916 F.2d 829 (3d Cir. 1990); Consolidated Rail Corp. v. United States, 883 F. Supp. 1565 (1995). American Premier Underwriters, Inc., formerly known as The Penn Central Corporation, was the only Defendant not to settle with the EPA pursuant to the 1999 consent decree. United States v. SEPTA, 235 F.3d 817, 821–22 (3d. Cir. 2000).

⁴⁶² United States v. AMTRAK, No. Civ. A. 86-1094, 1999
 U.S. Dist. Lexis 4781, at *1 (E.D. Pa. Apr. 6, 1999).

 463 Id.

⁴⁶⁴ Id.; Paul Dempsey, Antitrust Law & Policy in Transportation: Monopoly Is the Name of the Game, 21 GA. L. REV. 505, 565 (1987); PAUL DEMPSEY & WILLIAM THOMS, LAW & ECONOMIC REGULATION IN TRANSPORTATION 288–93 (Quorum 1986).

 465 Consolidated Rail Corp. v. United States, 883 F. Supp. 1565, 1572 (1995).

 466 Id.

⁴⁶⁷ United States v. National R.R. Passenger Corp. ("Amtrak"), No. Civ. A. 86-1094, 1999 U.S. Dist. Lexis 4871 (E.D. Pa. Apr. 6, 1999); *Paoli Rail Yard—General Site Information*, http://epa.gov/reg3hscd/super/sites/PAD9806925 94/index.htm; Soil at the Yard was contaminated with PCBs and VOCs. The PCBs were found 3 feet below the surface and

⁴⁵² John C. Cruden, *CERCLA Overview*, ALI-ABA 397, 430 (June 25–29, 2001).

 $^{^{453}} Id.$

 $^{^{456}}$ Id.

 $^{^{457}} Id.$

 $^{^{458}}$ Id.

By that time, PCBs had leached into the ground, contaminating groundwater and nearby streams.468 The Commonwealth of Pennsylvania issued an Administrative Order, which essentially ordered Amtrak, Conrail, and SEPTA to inspect the Yard, determine the level of contamination, and correct the problem.⁴⁶⁹ In 1985, the EPA became concerned when its representatives observed unrestricted access to the contaminated property by pedestrians and children.⁴⁷⁰ The EPA representatives also noted that runoff from the Yard flowed directly to residential neighborhoods.⁴⁷¹ The following year, in order to pursue remediation of the Yard through Superfund, the EPA brought suit against the defendants under CERCLA, RCRA, and Section 7 of the Toxic Substances Control Act (TSCA)472 to compel cleanup of the Yard.

Between 1986 and 1988, the EPA conducted a removal action at the Yard and surrounding homes. EPA's removal action included the construction of sedimentation and erosion control facilities, including stormwater collection basins on site, the excavation of 671 cubic yards of soil, and covering over of some 10,000 square yards of soil with a tarpaulin off-site.⁴⁷³ In addition, the EPA removed 3,500 cubic yards of contaminated soil from 35 properties in the neighborhoods surrounding the Yard. 474 The EPA also closed the nearby Valley Creek to fishing because of PCBs found in the fish and the creek sediment.475

Since the EPA initiated this action, the parties have signed "five partial preliminary consent decrees" outlining remediation measures for the defendants at the Yard and surrounding areas.⁴⁷⁶ In 1990, the EPA placed the Yard on the NPL. In 1992, the EPA issued an ROD requiring extensive excavation and treatment of soil at both the Yard and nearby streams and residential properties.⁴⁷⁷ The ROD estimated the cost to remedy the

the VOCs were found as deep as 10 feet. PCBs are linked to cancer, immune system deficiencies, liver damage, birth defects, and impairment of reproductive systems, See EPA website re current site information of Paoli Rail Yard, available at http://www.epa.gov/reg3hwmd/npl/PAD9806925 94.htm. Penn Central Corp. v. United States, 862 F. Supp. 437, 444 (1994).

⁴⁶⁸ Id. The PCBs from the Yard contaminated the Valley Creek and its tributaries.

⁴⁶⁹ AMTRAK, 1999 U.S. Dist. LEXIS 4781, at *1–2. (1999).

470 Id. at *2.

 471 Id.

472 Id.; 15 U.S.C. § 2606.

473 AMTRAK, 1999 U.S. Dist. LEXIS 4781, at *3.

⁴⁷⁴ Paoli Rail Yard—General Site Information,

http://www.epa.gov/reg3hwmd/npl/PAD980692594.htm.

 475 Id.

476 United States v. SEPTA, 235 F.3d 817, 820 (3d Cir. 2000)

⁴⁷⁷ Id. at 821. The ROD is a record decision by the EPA involving public comment. STEVEN FERREY, ENVIRONMENTAL LAW, EXAMPLES AND EXPLANATIONS 308 (6th ed. Wolters Kluwer, 2012).

contamination at \$28 million.478 In 1992, 1994, and 1995, the EPA attempted to settle with all of the defendants collectively.⁴⁷⁹ Settlement attempts were unsuccessful due to the lack of cooperation between the defendants and their disagreement over apportionment and the extent of liability.⁴⁸⁰ Finally in 1999, the federal court approved a consent decree, which settled liability and contribution issues for the Yard.481 Pursuant thereto, the defendants jointly agreed to pay \$500,000 to the EPA and \$100,000 to the Pennsylvania Department of Environmental Protection.⁴⁸² In addition, they agreed to pay "\$850,000 to federal and state trustees to settle claims for environmental damage."483 The defendants had already expended approximately \$12 million on the cleanup pursuant to previous consent orders.⁴⁸⁴ The EPA apportioned liability in the consent decree based upon the number of years of ownership and the possibility of contamination during those years.⁴⁸⁵ The consent decree also gives "contribution protection" to the defendants and "protection for all remedial actions they have performed or will perform at the [Yard] "486 The Third Circuit U.S. Court of Appeals upheld the fairness and validity of the consent decree in 2000.487

⁴⁷⁸ Id.; Paoli Rail Yard—General Site Information; \$28M Remedy Planned for Paoli Rail Yard, Superfund Week, Aug. 8, 1997.

⁴⁷⁹ United States v. National R.R. Passenger Corp. ("Amtrak"), No. Civ. A. 86-1094, 1999 U.S. Dist. LEXIS 4781, at *4-6 (E.D. Pa. Apr. 6, 1999).

⁴⁸⁰ *Id.* at 5–6.

⁴⁸¹ Id. at 15; American Premier Underwriters, Inc. (formerly The Penn Central Corp.) did not participate in the settlement. Court OKs \$1.45 Million Settlement Over Paoli Rail Yard Cleanup, Associated Press Newswires at 18:41 (Apr. 13, 1999), http://www.epa.gov/reg3hwmd/npl/PAD980692594. htm.

482 Court OKs \$1.45 Million Settlement Over Paoli Rail Yard Cleanup, Associated Press Newswires at 18:41 (Apr. 13, 1999), http://www.epa.gov/reg3hwmd/npl/PAD980692594.htm; Rail Companies Pay \$1.45 Million to Government for Paoli Rail Yard Superfund Cleanup, U.S. Water News Online (May 1999), http://www.uswaternews.com/archives/arcrights/ 9raicom5.html (visited Apr. 16, 2013).

483 Court OKs \$1.45 Million Settlement Over Paoli Rail Yard Cleanup, Associated Press Newswires at 18:41 (Apr. 13, 1999), http://www.epa.gov/reg3hwmd/npl/PAD980692594.htm.

⁴⁸⁴ Rail Companies Pay \$1.45 Million to Government for Paoli Rail Yard Superfund Cleanup, U.S. Water News Online (May 1999), http://www.uswaternews.com/.

485 United States v. SEPTA, 235 F.3d 817, 823-4 (3d Cir. 2000).

⁴⁸⁶ Id. at 821–22.

⁴⁸⁷ Id. at 823–26. American Premier Underwriters, Inc., challenged the validity and fairness of the consent decree based upon the apportionment equation and the indemnify protections. The Third Circuit U.S. Court of Appeals affirmed the district court's approval of the consent decree and held that the indemnity protections were permissible under CERCLA and that the apportionment equation was fair. Id. The EPA issued American Premier Underwriters, Inc., a UAO, which requires it to perform according to the requirements of the

Also in 1986, 38 plaintiffs who lived or worked in the vicinity of the Yard brought suit in the Eastern District of Pennsylvania against the corporations that maintained the Yard and sold the PCBs.488 The plaintiffs sought to recover present and future actual and emotional damages for various severe and unusual illnesses caused by exposure to PCBs and also for property damage.489 After 14 years of contentious litigation, the defendants ultimately prevailed.⁴⁹⁰ The jury found that no property damage resulted from the PCB contamination and that the contamination caused no actual personal injury.⁴⁹¹ The jury also found that the medical monitoring tests were unnecessary and "excessive."492 Despite this victory for the defendants, the litigation had not concluded. In 2001, the case was on remand from the Third Circuit U.S. Court of Appeals with respect to the issue of damages.⁴⁹³ SEPTA settled with most of the

ROD at an estimated expense of \$6.8 million. National Association of Attorney Generals, *Court Affirms Paoli RR Consent Decree, Including Contribution Protection*, 2 NAAG NAT'L ENV'T ENFORCEMENT J. 14 (Mar. 2001). In addition, American Premier Underwriters, Inc., may have to reimburse the EPA for past and future natural resource costs at an estimated \$11 million. *Rail Companies Pay \$1.45 Million to Government for Paoli Rail Yard Superfund Cleanup*, U.S. Water News Online (May 1999), http://www.uswaternews.com/.

⁴⁸⁸ Brown v. SEPTA, 113 F.3d 444, 451 (3d Cir. 1997). The defendants included Monsanto Company, General Electric Corporation, Westinghouse Corporation, SEPTA, and the City of Philadelphia. *Id.* at 444; SEPTA filed third-party complaints against Westinghouse Electric, which manufactured some of the transformers used in the Yard; against the Budd Company, manufacturer of some of the rail cars; and against Penn Central. In the Matter of Penn Central Transp. Co., 944 F.2d 164, 166 (3d Cir. 1991). The plaintiffs also named Amtrak as a defendant, but the parties settled prior to trial.

 489 In Re: Paoli RR Yard PCB Litig., 221 F.3d 449, 454 (3d Cir. 2000).

⁴⁹⁰ *Id.* at 454. In this landmark decision, the Third Circuit U.S Court of Appeals' recognized the tort of medical monitoring The tort allows plaintiffs to recover for potential, future injuries. The Third Circuit U.S. Court of Appeals established the following criteria for a successful medical monitoring claim:

(1) Plaintiff was significantly exposed to a proven hazardous substance though the negligent actions of the defendant.

(2) As a proximate result of exposure, plaintiff suffers a significantly increased risk of contracting a serious latent disease.

 $\left(3\right)$ The increased risk makes periodic examinations reasonably necessary.

(4) Monitoring and testing procedures exist which make the early detection and treatment of the disease possible and beneficial.

In Re: Paoli RR Yard PCB Litig., 916 F.2d 829, 852 (3d Cir. 1990)

⁴⁹³ See In Re: Paoli Yard PCB Litig., 221 F.3d at 453–54. The plaintiffs appealed the district court's award of costs in the amount of \$154,129.30. The Court of Appeals remanded the case because the district court failed to consider the plaintiffs' indigency when determining the costs. *Id*.

plaintiffs for their state tort and Federal Employers Liability Act claims in $2000.^{494}$

In acquiring property, the transit attorney should keep two words in mind at all times: due diligence.

J. THE SAFE DRINKING WATER ACT

The Safe Drinking Water Act⁴⁹⁵ establishes a program designed to protect underground sources of drinking water from any waste disposal or other operations that might endanger public drinking water supplies. The Act also authorizes the EPA to promulgate regulations to limit contaminants in drinking water systems that have at least 15 service connections or that regularly serve at least 25 individuals. The EPA is required to set maximum goals for any contaminants determined to have an adverse effect on human health and that may occur in public water systems with a frequency and at levels that may threaten human health.⁴⁹⁶ States are given the primary responsibility for enforcing the standards and ensuring that maximum contaminant levels are not exceeded.497 The states also have authority to issue monetary penalties for violations of the Safe Drinking Water Act.⁴⁹⁸

K. WILD AND SCENIC RIVERS

The Wild and Scenic Rivers Act⁴⁹⁹ was enacted to preserve river systems in their natural, free-flowing condition and to protect these rivers and their immediate environment.⁵⁰⁰ To be protected under the Act, the river must "possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values."⁵⁰¹

The wild or scenic river designation protects these rivers from federal actions that may interfere with the river. The Act forbids the Federal Energy Regulatory Commission (FERC) from licensing any project, specifically dam building, that would directly affect a designated river.⁵⁰² Further, the Act forbids all federal agencies from assisting (by loan, grant, license, or otherwise) in the construction of any water resource project that would have a direct and adverse effect on the river.⁵⁰³

- ⁴⁹⁷ *Id.* § 300g-2.(a).
- ⁴⁹⁸ *Id.* § 300 g-2(a)(6).
- 499 16 U.S.C. §§ 1271 et seq.

 500 Wild and Scenic Rivers Act of 1968, Pub. L. No. 90-542, 82 STAT. 906, codified as amended at 16 U.S.C. \$ 1271 et seq., enacted to protect components of the national wild and scenic rivers systems.

⁵⁰¹ *Id.* at 1271. ⁵⁰² *Id.* § 1278(a).

⁵⁰³ Id. § 1278(b).

 $^{^{491}} Id.$

 $^{^{492}}$ Id.

⁴⁹⁴ In Re: Paoli R.R. Yard PCB Litig., No. 86-2229, 87-3227, 87-1190, 87-1258, 2000 U.S. Dist. LEXIS 12993, at *1 (E.D. Pa. Sept. 6, 2000).

⁴⁹⁵ 42 U.S.C. §§ 300f to 300j-26.

⁴⁹⁶ Id. § 300g-1.(b).

The Coastal Zone Management Act⁵⁰⁴ provides financial assistance to states that develop federally approved coastal management plans.⁵⁰⁵ The Secretary of Commerce may make grants to any coastal state for the purpose of administering that state's management program if it is approved by the Secretary and includes certain elements, including: (1) an identification of the boundaries of the coastal zone subject to the management program; (2) a definition of what shall constitute permissible land uses and water users within the coastal zone; and (3) an identification of how the State will exercise control over the coastal management program.⁵⁰⁶ The Act was amended in 1990 to require states to adopt management measures for controlling nonpoint source pollution of coastal waters.⁵⁰⁷ To be eligible for the state grants, all federal projects must be consistent with the approved state management program.

Executive Order 11988 also requires each agency to evaluate potential effects of any actions it may take on a floodplain; to ensure that its planning programs and budget request reflect consideration of flood hazards and floodplain management (in order to reduce the risk of flood loss and minimize the impact of floods on human safety, health, and welfare); and to restore and preserve the natural and beneficial values served by floodplains.⁵⁰⁸

⁵⁰⁶ Id. § 1465 Other elements required to be included in a management program include: (1) An inventory and designation of areas of particular concern within the coastal zone; (2) Broad guidelines on priorities of uses in particular areas, including specifically those uses of lowest priority; (3) A description of the organizational structure proposed to implement such management program, including the responsibilities and interrelationships of local, area wide, State, regional, and interstate agencies in the management process; (4) A definition of the term 'beach' and a planning process for the protection of, and access to, public beaches and other public coastal areas of environment, recreational, historical, esthetic, ecological, or cultural value; (5) A planning process for energy facilities likely to be located in, or which may significantly affect, the coastal zone, including a process for anticipating the management of the impacts resulting for such facilities; (6) A planning process for assessing the effects of, and studying and evaluating ways to control, or lessen the impact of, shoreline erosion, and to restore areas adversely affected by such erosion. Id.

507 16 U.S.C. § 1455b(g).

⁵⁰⁸ Floodplain Management, 42 Fed. Reg. 26,951 (May 25, 1977), as amended, Protection of Wetlands, 42 Fed. Reg. 26, 961 (May 25, 1977), 42 U.S.C. § 4321 note.

"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."⁵⁰⁹ Perhaps they clashed in the Overton Park era, but a lot has evolved since, like contextsensitive design and green highways.

It is important that a transit agency thoroughly review the history of a construction site before it acquires it or begins construction. The modification of a historic site under a federally funded transportation program must comply with several environmental protection and historic preservation laws, including Section 106 of the National Historic Preservation Act (NHPA)⁵¹⁰ and Section 4(f) of the Department of Transportation Act of 1966.⁵¹¹ Section 106 provides that before a federal agency may authorize the expenditure of federal funds, it must first consider the effects of such an undertaking on any district, site, building, structure, or object that is included or eligible for inclusion in the National Register of Historic Places. Section 106 is essentially a procedural statute and does not impose substantive requirements on the agency.⁵¹²

NHPA requires federal agencies to "take into account the effect" that a federal undertaking will have on "any district, site, building, structure or object that is included in or eligible for inclusion in the National Register" and "afford the Advisory Council on Historic Preservation...a reasonable opportunity to comment with regard to such undertaking."⁵¹³ Under NHPA, a federal agency must make a reasonable and good faith effort to:

• Identify historic properties;⁵¹⁴

• Determine whether such properties are eligible for listing on the National Register;⁵¹⁵

 \bullet Determine whether there will be any adverse effects on the historical properties as a result of the action; 516 and

 512 National Historic Preservation Act of 1966, Pub. L. No. 02-575, 106 Stat. 4600, codified as amended at 16 U.S.C. $\$ 470f. See Valley Community Preservation Comm'n v. Mineta, 373 F.3d 1078, 1085 (10th Cir. 2004).

⁵¹⁵ The relevant criteria are set forth in 36 C.F.R. § 60.4.
 ⁵¹⁶ 36 C.F.R. §§ 800.5.

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

 $^{^{504}}$ The Coastal Zone Management Act of 1972, Pub. L. No. 92-583, 86 Stat. 1280, codified as amended at 16 U.S.C. §§ 1451 *et seq.*, provides assurance of project consistency with the approved state management program.

 $^{^{505}}$ Id.

 $^{^{509}}$ Concerned Citizens Alliance, Inc. v. Slater, 176 F.3d 686, 690 (3d Cir. 1999) (holding under Section 4(f) that the Secretary's choice of a highway location through a historic district was not arbitrary and capricious).

^{510 16} U.S.C. § 470f.

 $^{^{511}}$ 49 U.S.C. 303 (Section 4(f) of the DOT Act); 23 U.S.C. 138. See Neighborhood Ass'n of the Back Bay v. FTA, 393 F. Supp. 2nd 66 (D. Mass. 2005).

^{513 16} U.S.C. § 470f.

^{514 36} C.F.R. § 800.4(b).

• Resolve adverse effects through consultation.⁵¹⁷

The National Historic Preservation Act of 1966⁵¹⁸ and the Department of Transportation Act of 1966, Section 4(f),⁵¹⁹ are related. Section 106 imposes consultative procedural requirements for determining a project's effect on historical resources. Section 4(f) provides protection to certain types of historical sites. Generally, the Section 106 process determines a historical site's significance for a transportation development project under Section 4(f).⁵²⁰ Section 106 of NHPA⁵²¹ requires the DOT, in consultation with the State Historic Preservation Officer (SHPO), to consider a transportation project's potential effects on historic properties.⁵²² NEPA requires that federal agencies "use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may ... preserve important historic, cultural, and natural aspects of our national heritage."523 Federal agencies involved in such projects must "consult with state historic preservation officers ("SHPOs"), make reasonable and good faith efforts to identify historic properties, determine their eligibility for listing in the National Register of Historic Places, and assess the effects of a project on such properties."524 The agency must also give the Advisory Council on Historic Preservation (Council) and other interested parties an opportunity to comment on the proposed project.⁵²⁵

property's location, design, setting, materials, workmanship, feeling, or association....

36 C.F.R. § 800.5(a)(1). "Adverse effects on historic properties include, but are not limited to: ...(v) Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features." *Id.* § 800.5(a)(2)(v). Adverse effects also include physical destruction or damage to the property or alterations inconsistent with the Secretary's standards for the treatment of historic properties. *Id.* § 800.5(a)(2)(i)and(ii). *See* Neighborhood Ass'n of the Back Bay v. FTA, 393 F. Supp. 2d 66 (D. Mass. 2005).

517 36 C.F.R. §§ 800.6.

 518 Pub. L. No. 89-665, 80 Stat. 915 (codified as amended at 16 U.S.C. \S 470).

⁵¹⁹ Federal-Aid Highway Act of 1966, Pub. L. No. 89-574, 80 Stat. 766, 771, codified as amended at 23 U.S.C. § 138.

⁵²⁰ 2011 Fitch Forum: Part Three, 18 WIDENER L. REV. 159, 217, 235 (2012).

⁵²¹ Section 106 of the National Historic Preservation Act, as amended, 16 U.S.C. § 470f.

522 16 U.S.C. § 470f.

 523 42 U.S.C. 4331(b)(4). See Nat'l Ass'n of the Back Bay v. FTA, 407 F. Supp. 2d 323 (D. Mass. 2005).

524 16 U.S.C. § 470f.

 525 Id. Section 110(f) of the NHPA requires that:

Prior to the approval of any Federal undertaking which may directly and adversely affect any National Historic Landmark, the head of the responsible Federal Agency, shall, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to such landmark, and shall afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. Regulations implementing Section 4(f) of the Transportation Act of 1966 require that a transportation project that potentially impacts a historic site may not be undertaken unless there is no feasible and prudent alternative to the use of the site and the DOT has done all possible planning to minimize harm to the site.⁵²⁶ These restrictions do not apply if the "archeological resource is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place."⁵²⁷

Transportation funds cannot be approved without the agency's consideration of a project's potential effects on a historic site.⁵²⁸ However, this does not prevent an agency from undertaking planning activities before it has finished considering a project's effects on historic properties.⁵²⁹

If, after consultation, a property is identified as a historic place, the federal transportation agency must determine what kind of effects a proposed transportation project or plan would have on the property. If there are either no historic properties present, or if there are historic properties present but the project will have no effect on them, the agency must provide documentation of the findings to the SHPO.⁵³⁰ If there is no objection within 30 days, then the agency has fulfilled its obligations under the National Historic Preservation Act.⁵³¹ However, if a project is likely to have effects on a historic property, the agency must invite comments and assess effects.⁵³² If an effect is found to be adverse,⁵³³

Section 110 of the National Historic Preservation Act, 16 U.S.C.S. § 470h-2, does not create preservationist obligations beyond the central requirements of § 106 of the National Historic Preservation Act, 16 U.S.C.S. § 470f. Coalition of 9/11 Families v. Rampe, 2005 U.S. Dist. LEXIS 1913 (S.D.N.Y. 2005).

 526 23 C.F.R. § 771.135(a)(1).

 527 23 C.F.R. § 771.135(g)(2). Preservation Coalition of Erie County v. FTA, 356 F.3d 444 (2d Cir. 2004).

 528 36 C.F.R. § 800.1(c).

530 36 C.F.R. § 800.4(d).

 532 Id.

 $^{\rm 533}$ Adverse effects on historic properties include, but are not limited to:

(i) Physical destruction of or damage to all or part of the property; (ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 C.F.R. part 68) and applicable guidelines; (iii) Removal of the property from its historic location; (iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance; (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features; (vi) Neglect of a property which causes deterio-

¹⁶ U.S.C. § 470h-2(f). Nat'l Ass'n of the Back Bay v. FTA, 407 F. Supp. 2d 323; 2005 U.S. Dist. LEXIS 37591 (D. Mass. 2005), *aff'd* 463 F.3d 50; 2006 U.S. App. LEXIS 23394 (1st Cir. 2006).

 $^{^{529}}$ Id.

 $^{^{531}}$ Id.

the agency and the SHPO must develop alternatives to the project that could avoid, minimize, or mitigate adverse effects on historic properties.⁵³⁴ The agency and the SHPO then execute an MOA incorporating the mitigation measures, with the agreement of the Council.⁵³⁵ If historical artifacts are discovered during construction, the work comes to a halt until the necessary plans are changed and approved. Like Section 4(f), Section 106 has significant impacts on transit operators during the environmental process.

The NHPA authorizes the award of attorneys' fees, expert witness fees, and other costs to a person who "substantially prevails" in a suit brought to enforce the provisions of NHPA. 536

N. ENERGY CONSERVATION

Congress promulgated the Energy Policy and Conservation Act⁵³⁷ to encourage a more efficient use of our limited energy resources.⁵³⁸ As part of this policy, states are encouraged to develop state energy conservation plans with the goal of reducing the rate of growth of energy demand and minimizing adverse effects of increased energy consumption.⁵³⁹ As an incentive, the federal government will provide financial and technical assistance to states in support of energy conservation programs.⁵⁴⁰ Moreover, FTA assistance for the construction, reconstruction or modification of buildings requires completion of an energy assessment.⁵⁴¹

In developing state conservation plans, there are some TCMs that a plan is required to have in order for the state to receive federal funding to implement the plan. A state conservation plan must include programs

ration except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and (vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

 $36 \text{ C.F.R.} \ 800.5(a)(2).$

534 36 C.F.R. § 800.6(a).

535 36 C.F.R. § 800.6(c).

⁵³⁶ 16 U.S.C. § 470w-4. *See, e.g.*, Preservation Coalition of Erie County v. FTA, 356 F.3d 444 (2d Cir. 2004); Preservation Coalition of Erie County v. FTA, 2006 U.S. Dist. LEXIS 11960 (W.D.N.Y. 2006).

⁵³⁷ Energy Policy and Conservation Act of 1975, Pub. L. No. 94-163, 89 Stat. 871, 42 U.S.C. §§ 6201, 6321.

⁵³⁸ See generally Paul S. Dempsey, Economic Aggression & Self-Defense in International Law: The Arab Oil Weapon and Alternative American Responses Thereto, 9 CASE W. RES. J. INT'L L. 253 (1977).

539 42 U.S.C. § 6321.

⁵⁴⁰ Id. § 6321(b).

to promote the availability and use of carpools, vanpools, and public transportation. A state must have at least one of the following programs in at least one urban area with a population of at least 50,000 or in the largest urban area in the state: (i) a carpool/vanpool matching and promotion campaign; (ii) park and ride lots; (iii) preferential traffic control for carpoolers and public transportation patrons; (iv) preferential parking for carpools and vanpools; (v) variable work schedules; (vi) improvement in transit level of service for public transportation; (vii) exemption of carpools and vanpools from regulation carrier statutes; (viii) parking taxes, parking fee regulations, or surcharge on parking costs; (ix) full-cost parking fees for State and/or local government employees; (x) urban area traffic restrictions; (xi) geographical or time restrictions on automobile use; or (xii) area or facility tolls. 542 Also, a program may include programs to increase transportation energy efficiency, including programs to accelerate the use of alternative transportation fuels for government vehicles, fleet vehicles, taxis, mass transit, and privately owned vehicles.543

In their traffic mitigation program, the 1990 Amendments to the Clean Air Act included the promotion of carpooling and ridesharing to reduce pollution.⁵⁴⁴ The 1990 Amendments attempted to transform the voluntary nature of carpooling into a mandated element of an integrated environmental policy.⁵⁴⁵ The Amendments spawned state and regional legislation that requires employers to reduce VMT by commuting employees. Typically, this is accomplished by ridematching, carpooling, and vanpooling.⁵⁴⁶ Though the principal focus of the Clean Air Act is environmental protection, like the Energy Policy and Conservation Act, it too encourages conservation of energy resources.

Furthering the conservation goals of earlier legislation, the Energy Policy Act of 1992 established a goal of having alternative fuels replace 10 percent of the petroleum consumed by 2000, and 30 percent by 2010, in part by mandating that a portion of new vehicles purchased by federal and state agencies be alternative fuel vehicles.⁵⁴⁷ By 1999, however, only 0.4 percent of all vehicles were alternative fuel vehicles; in 1998, alterna-

⁵⁴⁵ Matthew Gagelin, Employer Trip Reduction—Who Is Responsible for Organizing the Carpool?, 1 ENVT'L L. 203 (1994).

⁵⁴⁶ RUSSELL LIEBSON & WILLIAM PENNER, SUCCESSFUL RISK MANAGEMENT FOR RIDESHARE AND CARPOOL-MATCHING PROGRAMS (Transit Cooperative Research Program, Legal Research Digest No. 2, Transportation Research Board, 1994).

⁵⁴⁷ See Perry Goldschein, Going Mobile: Emissions Trading Gets a Boost From Mobile Source Emission Reduction Credits, 13 UCLA J. ENVTL L. & POL'Y 225 (1994).

 $^{^{541}}$ 49 C.F.R. § 622.301. The energy assessment must analyze the total energy requirements of a building, including overall design; materials and techniques used in construction; conservation features that may be used; fuel requirements for heating, cooling, and operations; and the kind of energy to be used. *Id*.

 $^{^{542}}$ 10 C.F.R. § 420.15(b).

⁵⁴³ Id. § 420.17(a)(2).

 $^{^{544}}$ Clean Air Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676 (1970), codified as amended at 42 U.S.C. \S 7401 et seq.

tive fuels had replaced only 3.6 percent of all highway gasoline use, far short of Congress's objective.⁵⁴⁸

The EPA, DOT, and the Department of Energy have adopted programs to encourage the use of alternative fuels in vehicles, including transit buses.

O. USE OF RECYCLED PRODUCTS

Federal transportation agencies are encouraged to use items composed of the highest possible percentage of recovered materials practicable, if the agency purchases more than \$10,000 worth of the product in a fiscal year.⁵⁴⁹ For transportation projects, such materials include: "(a) traffic barricades and traffic cones used in controlling or restricting vehicular traffic; (b) parking stops made from concrete or containing recovered plastic or rubber; (c) channelizers containing recovered plastic, rubber, or steel; (e) flexible delineators containing recovered plastic."⁵⁵⁰ In addition, transportation agencies are encouraged to use road signs containing recovered aluminum and sign supports and posts containing recovered plastic and steel.⁵⁵¹

P. ENVIRONMENTAL JUSTICE

1. Administrative Action

In 1994, President Clinton signed Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" [the Proclamation].⁵⁵² Its purpose was to ensure that each federal agency identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activion minority populations and low-income ties populations.⁵⁵³ The Proclamation required that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and lowincome populations...."554 Although the Proclamation does not define "environmental justice," it creates a list

⁵⁵⁰ 40 C.F.R. § 247.13.

 553 Id.

 554 Id.

of procedures that all federal agencies must follow to accomplish it.⁵⁵⁵ Executive Order 12898 and the accompanying Presidential Memorandum call for the following actions to be conducted for NEPA-related activities:

• Analyzing environmental effects, including human health, economic, and social effects on minority populations and low-income populations when such analysis is required by NEPA;

• Ensuring that mitigation measures outlined or analyzed in EAs, EIS's, and RODs, whenever feasible, address disproportionately high and adverse environmental effects or proposed actions on minority populations and low-income populations; and

• Providing opportunities for community input in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving accessibility to public meetings, official documents, and notices to affected communities.⁵⁵⁶ FTA's policies on environmental justice in the NEPA process are intended to be consistent with the policies of the Council on Environmental Quality (CEQ) and EPA.⁵⁵⁷ EPA defines environmental justice (EJ) as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."⁵⁵⁸ USDOT defines three fundamental EJ principles for FHWA and FTA as follows:

1) To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations. 2) To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process. 3) To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.⁵⁵⁹

In 1992, the EPA created the Office of Environmental Justice [the Office].⁵⁶⁰ The Office manages and

⁵⁵⁹ FTA Cir. 4703.1, ch. 1.A (Aug. 15, 2012). See Executive Order No. 12898, 59 Fed. Reg. 7629 (Feb. 16, 1994). See also O'ahu Metropolitan Planning Organization (OMPO), Environmental Justice in the OMPO Planning Process: Defining Environmental Justice Populations 4 (2004), available at http://www.oahumpo.org/resources/publications-

and-reports/title-vi-and-environmental-justice/.

⁵⁶⁰ EPA: What is Environmental Justice,

 $^{^{548}}$ U.S. General Accounting Office, GAO/RCED-00-59, ENERGY POLICY ACT OF 1992: LIMITED PROGRESS IN ACQUIRING ALTERNATIVE FUEL VEHICLES AND REACHING FUEL GOALS 9 (Feb. 2000).

⁵⁴⁹ 42 U.S.C. § 6962. The use of recycled products is required by EPA guidelines at 40 C.F.R. pt. 247 (1999), implementing Section 6002 of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. § 6962.

⁵⁵¹ Id. § 247.17(f).

⁵⁵² Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994, 59 Fed. Reg. 7629 (Feb. 16, 1994).

 $^{^{555}}$ Id.

⁵⁵⁶ Federal Transit Administration, Environmental Justice Policy Guidance for Federal Transit Administration Recipients, FTA Circular 4703.1, at 41 (Aug. 15, 2012), available at http://www.fta.dot.gov/legislation_law/12349_14740.html.

 $^{^{557}\,\}rm{DOT}$ Order 5610.2(a) at § 4; 77 Fed. Reg 27,534 (May 10, 2012).

⁵⁵⁸ FY 2013 Office of Enforcement and Compliance Assurance (OECA) National Program Manager (NPM) Guidance 18 (Apr. 30, 2012) (hereafter "NPM Guidance"), available at http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey= P100F6FG.PDF.

supervises the incorporation of environmental justice into the EPA's programs and policies.⁵⁶¹ The Office also works with the other federal agencies that comprise the "Interagency Federal Working Group on Environmental Justice" to ensure that all federal programs consider and integrate environmental justice policy.⁵⁶² The administrators of each major federal agency or their designees comprise the Interagency Working Group."⁵⁶³ This group, guided by the Administrator of the EPA, develops the strategies and procedures for all federal agencies to follow to achieve environmental justice.⁵⁶⁴ Each federal agency must achieve environmental justice by:

at a minimum: (1) identifying and addressing disproportionately high and adverse human health or environmental effects of agency programs, policies, and activities on minority populations and low-income populations; (2) promoting enforcement of all health and environmental statutes in areas with minority or low-income populations; (3) ensuring greater public participation; (4) improving research and data collection relating to the health and environment of minority and low-income populations; and (5) identifying differential patterns of consumption of natural resources among minority and low-income populations.⁵⁶⁵

Pursuant to the Proclamation, the EPA created permitting regions.⁵⁶⁶ Within each region, the EPA collects, "census data, source location data, data reporting the

http://epa.gov/compliance/environmentaljustice/index.html. The EPA, through the Office of Compliance and Enforcement, defines "environmental justice" as follows:

Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

 561 Id.

⁵⁶² Id. Due to concern over the proper implementation and consideration of environmental justice in federal agency decisions, the EPA created the National Environmental Justice Advisory Council in 1993. Twenty-five members of "stakeholder" groups comprise the Council. Stakeholders include, "community-based organizations; business and industry; academic and educational institutions; state and local government agencies; tribal government and community groups; nongovernmental organizations and environmental groups." Id. The purpose of the Council is to act as an independent source of criticism and advice to the EPA regarding implementation and consideration of environmental justice. Id.

 563 Id. (providing a complete list of federal agencies in the working group).

⁵⁶⁴ Id.; Robert R. Kuehn, A Taxonomy of Environmental Justice, 30 ENVT'L L. REP. 10681 (2000).

 565 Id.

⁵⁶⁶ See Sheila R. Foster, Meeting the Environmental Justice Challenge: Evolving Norms in Environmental Decisionmaking, 30 ENVT'L L. REP. 10992 (Nov. 2000). quantity of toxic chemical releases from the most recent toxic release inventory, ...data from the Region's own permitting compliance system...location of the proposed facility, the existence of other facilities, and maximum emission data....⁷⁵⁶⁷ An analysis of all these factors determines whether there is a disparate impact on the community resulting in discrimination.⁵⁶⁸ Inherent problems arise from determining disparate impact through the above analysis. Foremost is the ability of EPA to collect accurate data and the community challengers' ability to assess the correctness of the technical and scientific collections.

The DOT developed an Environmental Justice Strategy to comply with the Executive Order in 1995, issuing an Order in 1997.⁵⁶⁹ DOT supplemented the Environmental Justice requirements with a more expansive Order in 2012.⁵⁷⁰ FTA issued Circular 4703.1 implementing these requirements a few months later.⁵⁷¹

The DOT's compliance with the Environmental Justice Strategy [strategy] is accomplished primarily within the framework of NEPA.⁵⁷² Environmental review is required for all federally funded projects and includes:

• Reviewing important adverse effects of the project to determine whether those adverse effects are significant;

• Determining whether adverse effects can be avoided, minimized, or mitigated; and,

 \bullet Assessing the project's benefits versus its burdens on the environment. 573

Environmental justice concerns must be addressed in the DOT's preparation of every EIS.⁵⁷⁴ The strategy

⁵⁶⁹ Department of Transportation (DOT) Order to Address Environmental Justice in Minority Populations and Low-Income Populations, Executive Order 12898, 62 Fed. Reg. 18377 (Apr. 15, 1997).

⁵⁷⁰ U.S. DOT Updated Environmental Justice Order 5610.2(a), Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 77 Fed. Reg 27,534 (May 10, 2012).

⁵⁷¹ Federal Transit Administration, Environmental Justice Policy Guidance for Federal Transit Administration Recipients, FTA Circular 4703.1 (Aug. 15, 2012), available at http://www.fta.dot.gov/legislation_law/12349_14740.html.

⁵⁷² Department of Transportation (DOT) Order to Address Environmental Justice in Minority Populations and Low-Income Populations, Executive Order 12898, 62 Fed. Reg. 18,377, 18,379 (Apr. 15, 1997).

⁵⁷³ Federal Transit Administration, Environmental Justice Policy Guidance for Federal Transit Administration Recipients, FTA Circular 4703.1 (Aug. 15, 2012), at 42.

⁵⁷⁴ Department of Transportation (DOT) Order to Address Environmental Justice in Minority Populations and Low-Income Populations, Executive Order 12898, 62 Fed. Reg. 18,377 (Apr. 15, 1997), at 18380; *see also*

http://www.fhwa.dot.gov/environment/environmental_justice/

 $^{^{567}}$ Id.

 $^{^{568}}$ Id.

involves the consideration of adverse effects on minority and low-income populations during the transportation planning process, and relies heavily on public involvement from members of the subject populations. If a transportation project is identified as likely to have disproportionately high adverse effects on subject populations, the transportation agency must propose measures to avoid, minimize, or mitigate the adverse effects and consider alternatives to the proposed project.⁵⁷⁵ Environmental justice is a legal and policy tool that has been raised in environmental planning disputes and relocation issues. The goal of the DOT in addressing environmental justice issues is to improve the overall transportation decision-making process.576 If appropriately implemented, environmental justice in conjunction with transportation decision-making will:

• Make better transportation decisions that meet the needs of all people.

• Design transportation facilities that fit more harmoniously into communities.

• Enhance the public-involvement process,

strengthen community-based partnerships, and provide minority and low-income populations with opportunities to learn about and improve the quality and usefulness of transportation in their lives.

• Improve data collection, monitoring, and analysis tools that assess the needs of and analyze the potential impacts on minority and low-income populations.

• Partner with other public and private programs to leverage transportation-agency resources to achieve a common vision for communities.

• Avoid disproportionately high and adverse impacts on minority and low-income populations.

• Minimize and/or mitigate unavoidable impacts by identifying concerns early in the planning phase and providing offsetting initiatives and enhancement measures to benefit affected communities and neighborhoods.⁵⁷⁷

In addition to the agency requirements and remedies for environmental justice concerns, there are constitutional and statutory remedies under the Equal Protection Clause and Title VI of the 1964 Civil Rights Act [Title VI].

FTA Circular 4703.1 is a document designed to provide guidance to state DOTs, MPOs, and transit providers on:

(1) How to fully engage [Environmental Justice] EJ populations in the transportation decision-making process;

overview/ (explaining DOT's policies and procedures for complying with the Proclamation).

⁵⁷⁵ Department of Transportation Order to Address Environmental Justice in Minority Populations and Low-Income Populations, 62 Fed. Reg. 18,377, 18,380 (Apr. 15, 1997).

⁵⁷⁶ United States Dep't of Transp., An Overview of Transportation and Environmental Justice, http://www.fhwa. dot.gov/environment/ej2000.htm. (2) How to determine whether EJ populations would be subjected to disproportionately high and adverse human health or environmental effects of a public transportation project, policy, or activity; and

(3) How to avoid, minimize, or mitigate these effects.⁵⁷⁸

The Circular explains how to conduct an Environmental Justice Analysis. It describes how to determine which communities are comprised of minority and/or low income populations. It explains how to determine disproportionately high and adverse effects. The Circular also describes how to achieve meaningful public engagement with EJ populations. It provides guidance on how to integrate principles of EJ in transportation planning and service delivery and how to incorporate EJ principles into the NEPA process.⁵⁷⁹

Moreover, FTA's Master Agreement 580 requires recipients to promote EJ by:

1. Following and facilitating FTA's compliance with Executive Order No. 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," 42 U.S.C. § 4321 note, FTA Circular 4703.1 (2012), and

2. Following the DOT Order addressing environmental justice.⁵⁸¹

Once the EJ analysis has been complete, the EA or EIS can be prepared. The EA or EIS should provide:

• A description of the EJ populations within the study area affected by the project, if any, and a discussion of the method used to identify these populations (e.g., analysis of Census data, minority business directories, direct observation, or a public involvement process).

• A discussion of all adverse effects of the project, both during and after construction, that would affect the identified minority and low-income populations.

• A discussion of all positive effects that would affect the identified minority and low-income populations, such as an improvement in transit service, mobility, or accessibility.

• A description of all mitigation and environmental enhancement actions incorporated into the project to address effects, including, but not limited to, any special features of the relocation program that go beyond the Uniform Relocation Act and address adverse community effects such as separation or cohesion issues,

⁵⁸⁰ FTA MA(19), Oct. 1, 2012, available at

http://www.fta.dot.gov/documents/19-Master.pdf.

⁵⁷⁸ Federal Transit Administration, Environmental Justice Policy Guidance for Federal Transit Administration Recipients, FTA Circular 4703.1, at 8 (Aug. 15, 2012) (hereinafter FTA Circular 4703.1),

http://www.fta.dot.gov/documents/FTA_EJ_Circular_7.14-12_FINAL.pdf.

⁵⁷⁹ Id. at 41–50.

 $^{^{581}}$ DOT Order 5610.2(a), 77 Fed. Reg. 27,534 (May 10, 2012).

and the replacement of the community resources destroyed by the project.

• A discussion of the remaining effects, if any, and why further mitigation is not proposed.

• For projects that travel through predominantly minority and low-income and predominantly non-minority and non-low-income areas, a comparison of mitigation and environmental enhancement actions that affect predominantly low-income and minority areas with mitigation implemented in predominantly non-minority or non-low-income areas.⁵⁸²

2. Judicial Review

Environmental justice litigation under the Equal Protection Clause relies primarily on the holdings of *Washington v. Davis*⁵⁸³ and *Village of Arlington Heights v. Metropolitan Housing Development Corp.*⁵⁸⁴ In *Washington*, the court held that disproportionate impact on racial minorities by a governmental action is relevant to prove intent or purpose to discriminate based on race, but that alone it is not enough for a Equal Protection Clause violation.⁵⁸⁵ The court in *Village of Arlington Heights* established a five-part test to determine whether the government acted with the intent or purpose to racially discriminate.⁵⁸⁶

The five factors a court will examine to determine if there is illegal racism are:

1. Whether the impact of the official action falls more heavily on one race than another and cannot be explained in any other way besides race;

2. The historical context of the decision;

3. The sequence of events immediately preceding the contested decision;

4. Deviations from normal decision-making processes; and

5. The legislative and administrative history of the particular decision. 587

This intent test has proven very difficult for plaintiffs to meet, and only those cases with the most obvious

⁵⁸⁴ Village of Arlington Heights v. Metropolitan Housing Dev. Corp., 429 U.S. 252, 94 S. Ct. 555, 50 L. Ed. 2d 450 (1977) (holding that the denial of zoning for low-income housing that would benefit mostly minorities did not violate the Equal Protection Clause because plaintiffs failed to prove racial discrimination was the motivating factor for the zoning decision).

⁵⁸⁵ Washington v. Davis, 426 U.S. 229.

⁵⁸⁶ Village of Arlington, 429 U.S. 252.; Robert W. Collin, Review of the Legal Literature on Environmental Racism, Environmental Equity, and Environmental Justice, 9 J. ENVTL. L. & LITIG. 121, 125 (1994).

⁵⁸⁷ Robert W. Collin, Review of the Legal Literature on Environmental Racism, Environmental Equity, and Environmental Justice, 9 J. ENVTL. L. & LITIG. 125 (1994). and unequivocal discrimination are provided a remedy under the Equal Protection Clause.⁵⁸⁸ Along with the Constitutional protections, Title VI also provides remedies for discrimination within the environmental justice framework.

In 1994, the NAACP Legal Defense & Educational Fund, Inc., (LDF) initiated the first civil rights class action lawsuit to challenge a transportation agency decision under Title VI.589 The Los Angeles County Metropolitan Transportation Authority (MTA) planned to increase its bus fare by 25 cents and discontinue its unlimited \$42 monthly bus pass.⁵⁹⁰ The federal district court in Los Angeles certified the class action and designated the plaintiffs as the "poor minority and other riders of MTA buses who are denied equal opportunity to receive transportation services because of the MTA's operation of a discriminatory mass transportation system."591 In October 1996, the parties signed a consent decree that settled the suit. The settlement included the reduction of overcrowding on MTA buses and a continued low monthly fare and daily fare and set specific target dates for the MTA to accomplish these goals.⁵⁹²

Fourteen months after the court approved the consent decree, the MTA had not vet met the target goals, specifically the overcrowding on the buses.⁵⁹³ The federal district court ordered the MTA to add 248 additional buses to its fleet to prevent overcrowding.⁵⁹⁴ The MTA appealed the order, arguing that the court misinterpreted the consent decree and acted beyond its authority in ordering the purchase of additional buses.⁵⁹⁵ The Ninth Circuit Court of Appeals held that the MTA violated the consent decree and had the opportunity to submit its own remedial plan to correct the violation.596 Therefore, the Court of Appeals affirmed the District Court's decision and order requiring MTA to purchase 248 additional buses to reduce transit overcrowding.⁵⁹⁷ As much as this decision was a victory for environmental justice proponents, the following United States Supreme Court decision has caused concern within the movement.598

 590 Id. (providing an indepth overview of the conditions and proceedings leading up to the consent decree).

 592 Id.

⁵⁹⁸ Jonathan Ringel, Rulings a Double Whammy for Civil

⁵⁸² FTA Circular 4703.1, at 50.

⁵⁸³ Washington v. Davis, 426 U.S. 229, 96 S. Ct. 2040, 48 L. Ed. 2d 597 (1976) (rejecting a challenge to a test used for police hiring where Whites passed more often than African-Americans).

⁵⁸⁸ Edward Patrick Boyle, It's Not Easy Bein' Green: The Psychology of Racism, Environmental Discrimination, and the Argument for Modernizing Equal Protection Analysis, 46 VAND. L. REV. 937, 949, 952–53 (1993).

⁵⁸⁹ See Labor/Community Strategy Center v. L.A. County Metro. Transp. Auth., 263 F.3d 1041 (9th Cir. 2001), see also Environmental Defense Fund, Fighting for Equality in Public Transit: Labor Community Strategy Center v. MTA, Jan. 1, 1999, available through the Environmental Defense Fund.

 $^{^{591}}$ Id.

⁵⁹³ Labor/Community Strategy Center, 263 F.3d at 1045-6.

⁵⁹⁴ Id. at 1047.

⁵⁹⁵ *Id.* at 1048.

⁵⁹⁶ Id. at 1051.

 $^{^{597}}$ Id.

On April 24, 2001, the United States Supreme Court dealt a strong blow to the environmental justice movement.⁵⁹⁹ In Alexander v. Sandoval⁶⁰⁰ [Sandoval], Martha Sandoval, a Mexican immigrant, brought a class action lawsuit under Title VI challenging Alabama's Englishonly policy for administration of its driver's license tests. Title VI, § 2000(d), prohibits any program or activity that receives federal financial assistance from excluding participants based on race, color, or national origin.⁶⁰¹ Further, Title VI, § 2000(d)-1, directs federal agencies and departments authorized to provide federal monetary assistance to pass rules and regulations to comply with the anti-discrimination section.⁶⁰² In furtherance of this directive, the Department of Justice [DOJ] promulgated a regulation prohibiting funding recipients from "utiliz[ing] criteria or methods of administration which have the effect of subjecting individuals to discrimination because of their race, color, or national origin...."603

Sandoval argued that Alabama's English-only policy for driver's license exams violated the DOJ's regulation because it discriminated against non-English speakers based on their national origin.⁶⁰⁴ She further requested that the court enforce the DOJ regulation and order the DOJ to "accommodate non-English speakers."605 The case proceeded to the U.S. Supreme Court under the central issue of whether Sandoval, as a private citizen, had a private cause of action to enforce the DOJ regulation.⁶⁰⁶ The court held that private individuals could sue to enforce § 2000(d) of Title VI, but that § 2000(d) only prohibits intentional discrimination.⁶⁰⁷ Therefore, because the English-only policy created a "disparate impact" based on national origin and race and did not involve intentional discrimination, there is no private right of action to enforce regulations promulgated under § 2000(d).608 Civil rights advocates consider this decision to be a significant setback to the environmental justice movement as the standard private citizens must meet to remedy discrimination is the very high and often unattainable threshold of intentional discrimination.609

Liberties Groups, THE RECORDER, Apr. 25, 2001, at 3.

 603 28 C.F.R. § 42.104(b)(2)(1999). See also 49 C.F.R. § 21.5, for a similar regulation promulgated by the DOT. The Court assumed that both the DOJ and DOT regulations prohibited activities with a disparate impact based on race and that such regulations are valid. Sandoval, 532 U.S. at 281–2.

604 Sandoval, 532 U.S. at 279.

- 605 Id. at 278.
- 606 Id. at 279-80.
- 607 Id. at 280.
- 608 Id. at 282, 293.
- ⁶⁰⁹ Ringel, *supra* note 598.

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 $^{^{600}}$ 532 U.S. 275, 121 S. Ct. 1511, 149 L. Ed. 2d 517 (2001); 42 U.S.C. \S 2000(d)–2000(d)-1.

^{601 42} U.S.C. § 2000(d).

^{602 42} U.S.C. § 2000(d)-1.