SECTION 1

ENVIRONMENTAL LAW IN TRANSPORTATION PLANNING

A. METROPOLITAN PLANNING ORGANIZATIONS (MPOS)*

1. Legal Requirements

a. General Requirements

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

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

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

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

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

d. Other Legal Requirements

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

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

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

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

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

[2] 23 U.S.C. § 134(g)(1).

[3] 23 U.S.C. § 134(g)(2).

[4] 23 U.S.C. § 134(g)(3).

[5] 23 U.S.C. § 134(g)(4).

[6] 23 U.S.C. § 134(g)(5).

[7] 23 C.F.R. § 450.212(a).

[8] 23 U.S.C. § 134(h)(1).

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

[10] 23 U.S.C. § 134(h)(2)(B).

[11] 42 U.S.C. § 7401 *et seq*.

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

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

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

[15] 23 U.S.C. § 134(b)(3).

[16] 23 U.S.C. § 134(d).

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

2. How MPOs Are Established

a. Designation

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

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

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

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

b. MPO Boundaries

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

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

3. MPOs Vary in Power and Composition

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

4. Role of MPOs in Transportation Planning

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

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

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

a. CAA[33]

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

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

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

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

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

B. THE METROPOLITAN PLANNING PROCESS*

1. Factors To Consider in Metropolitan Planning Process

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

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

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

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

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

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

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

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

b. FHWA and FTA Regulations

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

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

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

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

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

[39] *Id*.

[40] *Id*.

[41] 23 C.F.R. § 420.101.

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

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

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

[45] 23 C.F.R. § 420.115.

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

c. FHWA

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

[46] 23 C.F.R. § 420.117(e).

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

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

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

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

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

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

2. MPO Planning Process Products

a. The LRTP

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

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

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

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

[54] 23 U.S.C. § 134(g)(2)(B).

[55] 23 U.S.C. § 134(g)(2)(C).

[56] 23 U.S.C. § 134(g)(2)(D).

[57] 23 U.S.C. § 134(g)(3).

[58] *See* § 1.F.3 *infra*.

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

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

b. The TIP

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

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

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

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

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

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

C. STATEWIDE PLANNING*

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

1. Factors to Consider in Statewide Planning Process

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

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

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

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

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

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

[68] 23 U.S.C. § 135(f).

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

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

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

c. FHWA and FTA Regulations

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

2. Coordination with Metropolitan Planning Process

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

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

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

3. STIP

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

4. Financial Constraints

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

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

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

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

D. ENVIRONMENTAL REVIEW

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

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

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

E. CORRIDOR PRESERVATION*

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

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

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

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

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

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[80] 23 U.S.C. § 135(f)(2)(D).

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

[82] *Id.* at 9.

[83] 23 U.S.C. § 135(g).

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

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

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

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

2. Regulatory Techniques

a. Corridor Mapping

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

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

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

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

b. Subdivision Exactions and Reservations

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

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

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

c. Takings

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[95] 512 U.S. at 388.

[96] 512 U.S. at 391.

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

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

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

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

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

3. Advance Acquisition

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

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

[98] 95 F.3d at 1430.

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

[100] *Id*. at 703.

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

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

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

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

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

4. NEPA and Other Environmental Laws

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

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

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

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

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

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

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

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

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[103] 23 U.S.C. § 108 (1994).

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

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

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

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

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

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

[110] 23 C.F.R., § 771.117(d)(12).

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

[112] *See* 23 U.S.C. § 108(c).

[113] 40 C.F.R. § 1502.4(b).

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

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

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

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

F. CAA REQUIREMENTS*

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

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

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

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

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

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

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

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

[116] 33 U.S.C. § 1344.

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

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

[118] *See generally*, Reitze I.

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

[120] 42 U.S.C. § 7411(a)(3).

[121] Reitze I, at 3.

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

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

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

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

1. The NAAQS and Their Application to Transportation Planning

a. NAAQS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

b. SIPs

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

c. Trans-Boundary Mobile Source Pollution

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

2. Transportation Control Measures

a. Introduction

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

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

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

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

b. General TCMs

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

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

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

c. Economic Incentives Programs

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

e. Implementation of Control Measurers through the TIP

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

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

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

f. Motor Vehicle Inspection and Maintenance

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

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

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

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

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

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

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

g. Transportation-Related Provisions Applicable to Ozone Nonattainment Areas

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

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

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

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

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

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

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

h. Transportation-Related Provisions Applicable to CO Nonattainment Areas

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

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

3. Conformity

a. Introduction

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

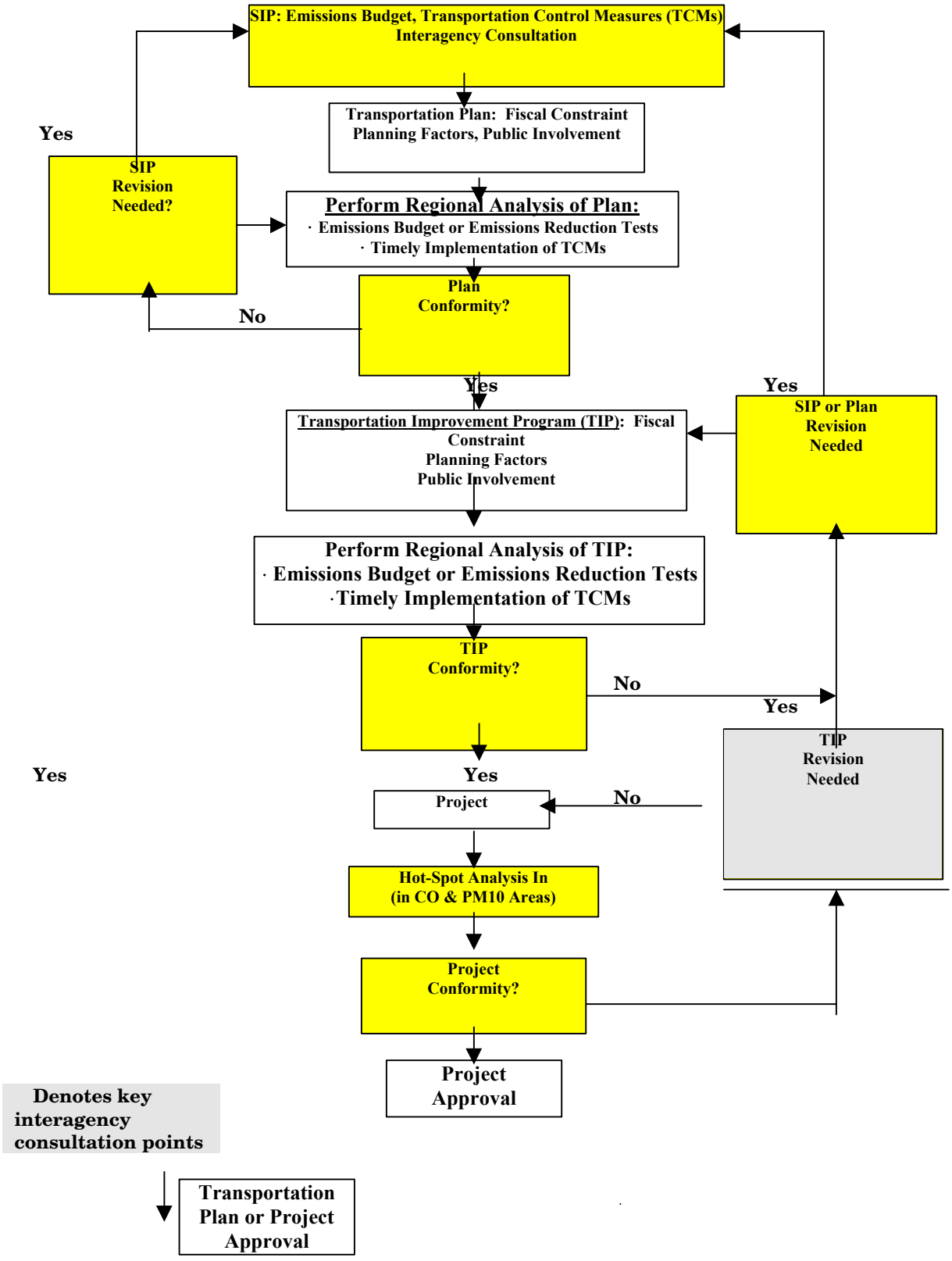
It further provides that "[n]o Federal agency may approve, accept or fund any transportation plan, program or project unless such plan, program or project has been found to conform to any applicable implementation plan in effect…."[222]

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

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

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

TRANSPORTATION CONFORMITY PROCESS



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

b. Transportation Plans and TIPs

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

c. Project Level Conformity

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

d. Conformity Determinations

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

e. Scope of Transportation Conformity Requirement

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

f. Timing and Frequency of Transportation Conformity Determination

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

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

g. Conformity Regulations

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

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

[228] 42 U.S.C. § 7506(c)(2)(B).

[229] 42 U.S.C. § 7506(c)(2)(C)-(D).

[230] 23 U.S.C. §§ 101–28.

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

[232] 40 C.F.R. § 93.104.

[233] *Id*.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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[247] 40 C.F.R. § 93.101.

[248] 40 C.F.R. § 93.121(b).

[249] *Id.*

[250] 40 C.F.R. § 93.101.

[251] 40 C.F.R. § 93.120 (a)(2).

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

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

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

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

[256] *Id*. at 645.

[257] *Id*. at 650.

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

[259] *Id.*

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

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

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

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

4. The Congestion Mitigation and Air Quality Improvement Program

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

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

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

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

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

[261] *Id.*

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

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

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

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

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

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

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

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

[270] *Id*. at 1.

[271] *Id.*

[272] *Id.*

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

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

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

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

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

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

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

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

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

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