

Chapter 2 – Planning Process

Background

The 1990s brought major change to the way the nation and state and local jurisdictions addressed transportation needs. The focus of the transportation network shifted away from a purely highway construction program to one that sought a balanced transportation program that provided multi-modal travel options. In addition, a direct cause and effect relationship was established between highway transportation and deteriorating air quality in many metropolitan areas. As a result, the United States Congress passed two far-reaching legislative packages to ensure that transportation planning and attainment of air quality goals were explicitly linked.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Clean Air Act Amendments of 1990 (CAAA) are responsible for significantly restructuring the transportation planning process in the Richmond region and across the nation. Transportation planning goals in the Richmond region must consider not only mobility, but efficient movement of people and goods, intermodal travel opportunities, and improved air quality as well. In order to receive federal funds, roadway construction or other roadway capacity enhancements must show that the completed project will not result in deterioration of the region's air quality. To achieve this, a region must have as one of its goals a balanced transportation system that provides mobility options across all potential travel modes.

ISTEA also established a new direction for transportation programming across the country. For the first time, metropolitan areas were asked to develop a seamless intermodal transportation network that improves air quality and is energy efficient. These metropolitan programs would then be linked to state plans and ultimately a national system that would provide a multi-modal transportation network for the entire country. As part of this plan, ISTEA sought to improve public transportation options by providing new opportunities for innovative and new transit programs and allowed some highway program funds to be shifted to mass transit projects. The strength of the new national system would include not only roads but also an integrated set of transportation systems, facilities, and services that would form an interconnected national transportation network.

Developing a national network whose progress was measured in terms of accessibility to and between various high capacity, fuel-efficient and environmentally sensitive transportation modes was a significant departure from a forty year era in which progress was measured by miles of highway pavement. During that time, investments in highways and public transportation occurred through independent and unrelated federal assistance programs. This meant that these systems were designed independently of each other. As the lessons learned from oil embargoes, gas crises, suburban development, and corporate relocation in the 1970s and 1980s were absorbed, it became clear that the national transportation system needed to focus on additional modes to ensure adequate mobility. With the CAAA and ISTEA legislation, Congress took the important first steps to change that focus.

In 1998, Congress reiterated its stance that the nation needed a more balanced transportation system when it adopted the Transportation Equity Act for the 21st Century (TEA-21). While maintaining much of the structure of the landmark ISTEA legislation, TEA-21 reduced the number of specified management systems required in large metropolitan areas; reduced the number of planning factors from sixteen to seven; and strengthened the link between air quality programs, growth management, and transportation systems. In addition, the new transportation legislation continued the flexible funding allowance, modified the states' funding formulas to ensure minimum allocations per dollar provided, and increased transit and other alternative funding provisions to better achieve the desired balanced transportation system.

Funding from TEA-21 spending provisions generally flows from the federal government to the Commonwealth of Virginia. The Commonwealth then determines how the federal allocations will be allocated to each of its metropolitan areas and other areas of the state. In addition, TEA-21 increases intergovernmental and interagency coordination by requiring a number of actions on the part of USDOT, VDOT, VDRPT, other regional transportation agencies, local governments, and citizens.

Future updates to the Plan will include changes to the federal requirements and guidelines being incorporated into the TEA-21 Reauthorization that is currently underway and being considered under the administration's proposal (i.e., SAFETEA or Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003) or various other House and Senate proposals. At present, SAFETEA proposes to change the plan update cycle from 3 years to 5 years; streamline the congestion management system (CMS) into the overall planning process; clarify the meaning of transportation management areas (TMAs); and make safety and security separate planning factors. (Note: SAFETEA legislation has not been passed at the time this plan was prepared, with TEA-21 extended to April 2004, and therefore many of these changes have not been incorporated into the Plan).

Purpose

In accordance with the Transportation Efficiency Act for the 21st Century (TEA-21), the Richmond Area MPO must develop a transportation planning and programming process that ensures all transportation plans, projects, and programs requiring federal approval or using federal funds are reviewed on the basis of consistent and constant evaluation criteria. Under TEA-21 requirements, this Plan will be the major document from which all other programs and plans will be drawn. And, as was stated previously, the Plan must be financially-constrained, meet environmental justice requirements, and pass air quality conformity. For this plan, the Richmond Area MPO has adopted goals, objectives and strategies that are quantifiable and will serve as the consistent and constant evaluation criteria. In developing the plan, the MPO must also consider the seven planning factors outlined in TEA-21 (these planning factors will be discussed later in this document). See Figure 2-1 for a summary of the plan update process.

The federal government has mandated that transportation decision-making in metropolitan areas be "continuing, cooperative, and comprehensive" (also known as the "3C" planning process). The Richmond area MPO carries out the "3C" planning process through a regularly

scheduled series of meetings (“continuous”) for both the MPO and its standing committees (i.e. Citizens Transportation Advisory Committee, Elderly and Disabled Advisory Committee, and Technical Advisory Committee). Special purpose committees, task forces, and sub-committees are also established as needed and include membership from the MPO member organizations and various groups and organizations from throughout the region. The participation of local elected officials on the MPO and technical staff on the MPO and its various committees allows the member jurisdictions to consider the broad implications of transportation decision-making at both the local and regional level. The process is “cooperative” because all member jurisdictions participate and all decisions are made collectively to best serve the Richmond region. The process is also “comprehensive” in that the decisions made by the MPO are based on:

- Each jurisdiction’s comprehensive plan,
- Consideration given to the impacts and implications that decisions will have on the entire region,
- An improvement program designed to maximize mobility for all member jurisdictions.

The MPO’s responsibilities have been further expanded to bring in new participants to address issues such as environmental concerns, privately funded transportation projects, freight services, transit services, and strategies to increase efficiency and safety. Groups and advocates for each of these issues must be part of the development process and the MPO has responded by developing a Long-Range Transportation Plan Advisory Task Force that comprises transportation professionals, citizens, environmental groups, intermodal facility operators, and transportation demand management advocates.

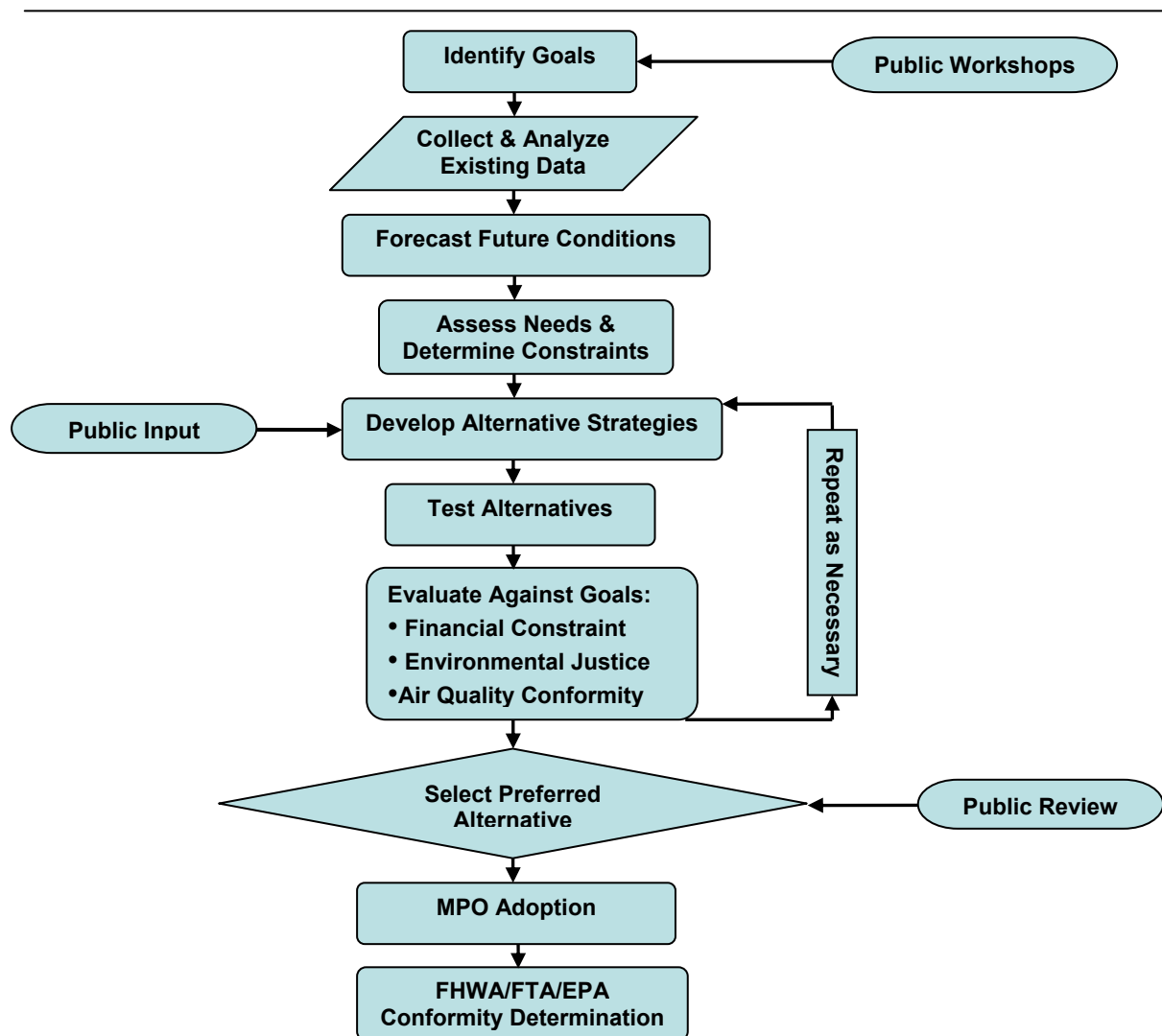
First introduced in the Intermodal Surface Transportation Efficiency Act and reiterated in TEA-21, is the need to financially constrain the plan and meet air quality conformity goals. As the advisory task force makes decisions on projects, plans, and priorities, financial constraint and air quality conformity are two primary motivating factors in plan project selection and recommendations. The need to collectively determine project and program priority on a regional level takes on increased significance with this plan, especially given tighter financial and pollutant emission constraints.

The transportation planning and programming process for the MPO provides a framework for guiding the development of all transportation plans and projects that are federally funded within the Richmond area. The four key elements of the transportation planning and programming process are:

- The implementation of a process which considers the seven planning factors.
- The implementation of a process that integrates a citizen participation program providing full access to the process and equal opportunity for citizen input during all phases of the planning process.
- The implementation of a process that encourages increased participation of operators of major modes of transportation, private transportation providers, and other interested parties to ensure all transportation perspectives and modes are represented in the planning process.
- Conformity of the transportation plan with the State Implementation Plan (SIP) for attainment of air quality goals.

In its role as lead staff to the Metropolitan Planning Organization (MPO) for the Richmond urbanized area, the Richmond Regional Planning District Commission (RRPDC), with assistance from VDOT (i.e., providing model and project cost information), is responsible for developing a collaborative process, including public outreach and task force, committee and MPO Board involvement, for updating the prioritization of transportation projects and strategies contained in the LRTP. The process includes reevaluating the plan’s goals and objectives; updating transportation and socio-economic data; forecasting future conditions and needs; developing and testing project prioritization alternatives; evaluating financing, distribution of benefits/burdens and air quality; and selecting a preferred alternative. Once adopted by the MPO Board, the LRTP is presented to United States Department of Transportation (USDOT) for receipt of a conformity determination. A conformity determination ensures that the LRTP meets air quality requirements based on a financially constrained plan. The LRTP update process is illustrated in Figure 2-1.

Figure 2-1 LRTP Update Process



The Transportation Equity Act for the 21st Century

Following a delay in the reauthorization of the Intermodal Surface Transportation Efficiency Act (ISTEA), a new transportation program was signed into law on June 9, 1998, and technical corrections added on July 22, 1998. The new law, The Transportation Equity Act for the 21st Century (TEA-21), not only provided funding for transportation programs across the country, it also continued the integrated, multi-modal focus of ISTEA. In addition to revising the funding formula for states to better reflect revenues generated by each state, TEA-21 reduced the number of required management systems, reduced the number of planning factors from sixteen to seven, and streamlined the environmental requirements to match those associated with the National Environmental Policy Act (NEPA).

TEA-21 requires that seven planning factors be considered in the development and update of regional transportation plans. These factors are addressed in the 2026 Long-Range Transportation Plan and are as follows:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2. Increase the safety and security of the transportation system for motorized and non-motorized users.
3. Increase the accessibility and mobility options available to people and for freight.
4. Protect and enhance the environment, promote energy conservation, and improve the quality of life.
5. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
6. Promote efficient system management and operation.
7. Emphasize the preservation of the existing system.

Like its predecessor, ISTEA, significant continuing provisions of TEA-21 are:

- Local officials, in cooperation with the state and transit operators, remain responsible for determining the best mix of transportation investments to meet metropolitan transportation needs and for meeting transportation-influenced environmental goals.
- Metropolitan Planning Organizations (MPOs) are responsible for adopting a long-range plan and transportation improvement program (TIP) based on that plan.
- A 20-year planning perspective for long-range plans that include air quality consistency, financial constraint, and significant public involvement.
- A Congestion Management System is required in metropolitan areas with a population in excess of 200,000.
- DOT certification of the planning process in metropolitan areas in excess of 200,000
- An emphasis on alternatives to highway capacity additions to accommodate the single occupant vehicle in areas that are non-attainment for air quality standards.

For the Richmond region, significant provisions include: financial constraint, public involvement, and emphasis on alternatives to the single occupant vehicle. Under TEA-21, the long-range plan and TIP must demonstrate how they can be implemented under anticipated available funding. The anticipated funds must be able to carry out the transportation projects identified. With these financial constraints, MPOs are required to weigh all modal alternatives to produce a transportation program that includes a transportation system that provides such alternatives as public transit, passenger rail, bicycle, pedestrian, and other transportation demand management and transportation system management options.

Other requirements of TEA-21 that are relevant for the Richmond region to consider are as follows:

- Includes operation and management of the existing transportation system as general objectives of the metropolitan planning process.
- Modifies transportation planning area boundary relationship to non-attainment area boundaries.
- Encourages coordination of non-emergency transportation services in metropolitan areas for such programs as welfare-to-work.
- Requires coordination across MPO boundaries where projects cross those boundaries.
- Identifies and includes freight shippers and users of public transit as stakeholders to be given opportunity to comment on plans and TIPs.
- Requires MPOs, the state, and transit agencies to cooperate in the development of financial estimates that support plan and TIP development.
- Clarifies that project selection must be from a cooperatively developed TIP and Long-Range plan.
- Adds option of identifying additional projects for inclusion in TIPs and plans if reasonable additional resources were available. Additional action by all jurisdictions is required to advance such projects.
- Requires publication of annual listing of projects for which federal funds have been obligated in the preceding year.
- Adds requirement for public involvement during certification review.
- Modifies sanctions available to Secretary of DOT to withhold funds from areas not in compliance with TEA-21 requirements.
- Exempts MPO plans and programs as actions addressed by NEPA.
- Replaces the stand alone Major Investment Study requirement of FHWA/FTA's joint planning regulation with a directive that, for federally funded highway and transit projects, analysis under the planning provisions of the Act and NEPA shall be coordinated.

The Clean Air Act Amendments

The Clean Air Act Amendments (CAAA) were signed into law on November 15, 1990. CAAA provides for a comprehensive revision of the 1977 CAAA. It imposes major challenges for the metropolitan transportation planning and programming process in the nation's designated non-attainment and maintenance areas. The Clean Air Act's primary goals are the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS), and the prevention of significant deterioration of air quality in areas cleaner than the NAAQS. The NAAQS establishes the maximum limits of pollutants that are allowed in the outside ambient air.

EPA requires that each state submit a State Implementation Plan (SIP), including any laws and regulations necessary to enforce the plan that shows how the air pollution concentrations will be reduced to levels at or below these standards. This achievement is referred to as "attainment." Once pollution levels are within the standards, the state must also show how it plans to keep these levels at the reduced amounts, referred to as "maintenance." The CAAA requires transportation plans to conform to the SIP for attainment of set air quality standards. The air quality plans quantify pollution reduction needs and commit to reduction strategies through the SIP, Transportation Control Measures (TCMs), and conformity provisions for transportation planning.

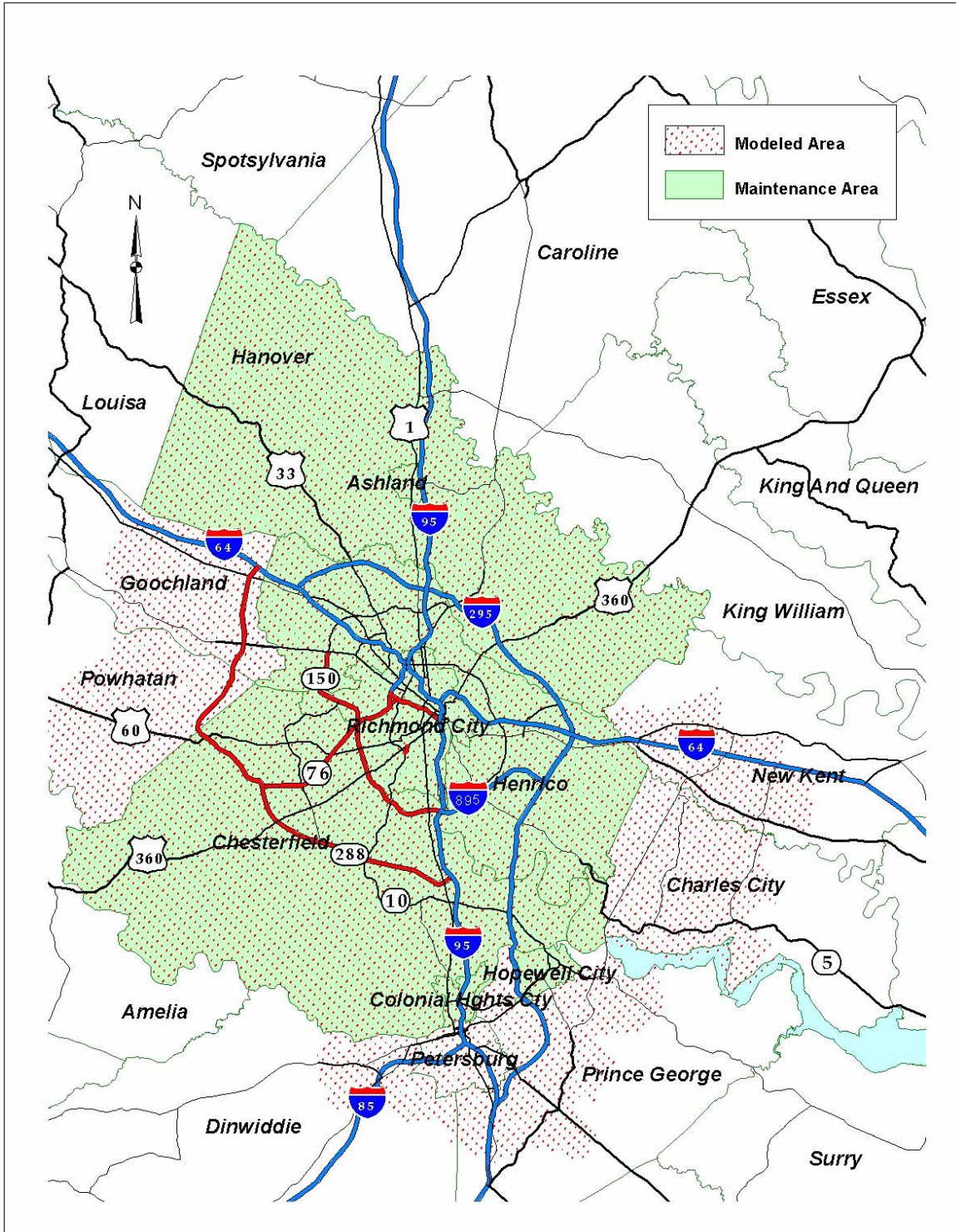
The EPA has defined NAAQS for various pollutants such as ground level ozone, carbon monoxide, and particulate matter. Any area that fails to meet these standards by a certain deadline may get reclassified to a higher-level designation with additional and more stringent compliance requirements.

For air quality conformity analyses, all of the City of Richmond, Hanover County, Henrico County, Chesterfield County, and a small portion of Charles City County are part of the Richmond maintenance area for ozone and air quality standards (see Map 2-1). EPA reclassified this area from a moderate ozone non-attainment to a maintenance area on November 5, 1997. Conformity requirements must continue under the maintenance designation.

Ozone is formed when precursor emissions - volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) - react in the presence of heat and sunlight to form ozone or smog. VOCs are organic petroleum-based emissions from mobile sources such as cars, trucks, and buses; stationary sources such as power plants, printing, and dry cleaning operations; and area sources such as lawn mowers, outdoor grills, and farm equipment, which are individually insignificant but have a cumulative impact.

As a moderate non-attainment area for ozone NAAQS, the Richmond area was required to implement several major control programs and implement a SIP that provides for a 15 percent (15%) reduction in VOC emissions by November 15, 1996. The SIP had to identify needed VOC reductions and describe how VOC emissions would be reduced by the November 1996 deadline. As a maintenance area, the SIP must include measures that will control VOC emissions and identify actions that will take place in the event that VOC levels exceed specified limits.

Map 2-1 Richmond and Tri-Cities MPO Air Quality Maintenance Area



Source: VDOT/VDEQ

Conformity

Section 176 of the CAAA provides for a detailed and specified conformity determination process. These provisions define conformity as conforming to the implementation plan's purpose of eliminating and reducing the severity and number of NAAQS violations and achieving and maintaining attainment status. The MPO's transportation plans and programs must serve as part of the air quality improvement effort for the maintenance area.

The conformity process provides for the analyses of transportation related air quality issues on a system-wide basis and control through regional strategies in order to be effective. As a result, projects within the MPO's transportation plans and programs are to be evaluated in the aggregate rather than on an individual basis. Therefore, transportation plans and programs, taken as a whole, must conform to the SIP.

The MPO's conformity determinations are to be made based on conformity criteria for transportation plans, programs, and projects. Conformity determination is innovative in overseeing the impact that the transportation system's expansion has on air quality. The conformity assessment among transportation plans, SIPs, and air quality plans must show that transportation investments will not delay attaining the ozone standards or exacerbate air quality violations above specified levels for maintenance areas. Specifically, transportation plans and programs must maintain or reduce vehicle emissions. In the event the Richmond area becomes nonattainment with the implementation of pending 8-hour standards, transportation control measures in the SIP may be considered.

Transportation Control Measures

The CAAA requires that non-attainment and maintenance areas for ozone, such as the Richmond area, review TCMs for applicability in reducing or limiting mobile source emissions. At a minimum, the CAAA specifies 16 measures, which are summarized as follows:

- Improved public transit.
- Road or lane restrictions for high occupancy vehicles (HOVs).
- Employer-based transportation management plans.
- Trip-reduction ordinances.
- Traffic flow improvement programs.
- Fringe and corridor parking facilities.
- Vehicle use restrictions in downtowns or major activity centers.
- Programs that provide for all forms of high-occupancy, shared ride services.
- Programs to limit road use in certain areas to pedestrians and bicycles.
- Bicycle lanes, storage facilities, and bike parking programs.
- Programs to control extended vehicle idling.
- Programs to reduce emissions under cold start conditions.
- Employer sponsored flexible work scheduled programs.
- Programs and ordinances to facilitate non-automobile travel.
- Programs for the construction of bicycle and pedestrian paths.

- Programs to encourage the voluntary removal of pre-1980 vehicles from the market place.

Highway Funding Sanctioning

Under the 1977 CAAA, sanctions on highway funds were applied only for failing to submit or making reasonable efforts to submit the SIP. Under the 1990 CAAA, the use of highway sanctions has been significantly expanded as follows:

- If the EPA determines that the state has failed to submit an implementation plan or any other required submission, respond to a SIP call, or has submitted an incomplete or inadequate plan or other submission.
- If the EPA disapproves a plan submission or other required documentation.
- If the EPA finds that an approved plan is not being implemented.

Sanctions that the EPA can impose fall under two categories:

- Highway funds withholding.
- Stationary source emissions offsets of at least 2 to 1.

The U.S. Department of Transportation (USDOT) may exempt sanctions against certain federal aid projects including highway safety and seven specific project types that emphasize moving people versus vehicles (e.g., mass transit, ridesharing, traffic flow improvements, etc.). The sanctions may be applied to any portion of the state that the EPA determines reasonable and appropriate, within certain limited restrictions. States are required to submit a SIP revision within one year after notice of failure to attain. The plan revision must include any additional measures prescribed by the EPA.

Environmental Justice

The purpose of environmental justice is to avoid, minimize or mitigate disproportionately high and adverse human health or environmental effects on low income and minority populations; to ensure full and fair participation of low income and minority populations; and to prevent the denial of benefits to low income and minority populations. In the past, minority and low-income populations have been identified as the largest disenfranchised group, both in terms of equal access to transportation supply and citizen input. Environmental justice seeks to ensure equal access to transportation systems and to the transportation planning process for everyone regardless of race, color, creed, or national origin.

The environmental justice regulatory framework started with Title VI of the Civil Rights Act of 1964 and was reinforced by the National Environmental Policy Act (NEPA) of 1969, the Federal Aid Highway Act of 1970, Executive Order 12898 of 1994, and U.S. DOT Order on Environmental Justice (DOT Order 5610.2) of 1997. Under these requirements each MPO receiving federal funds is expected to identify residential, employment, and transportation patterns of low-income and minority populations; identify the distributions of benefits and burdens of the transportation system on these populations; and evaluate and improve the public involvement process to eliminate participation barriers and engage minority and low-income populations in transportation decision making.

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) was enacted into law on July 6, 1990. The purpose of this civil rights legislation is “to provide a clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities.” It is the national goal of ADA to assure that persons with disabilities have equality of opportunity, have a chance to fully participate in society, are able to live independently, and be economically self-sufficient. Implementing ADA in the Richmond transportation sector is discussed later in this document. There are five Titles in the Act that are summarized below.

Title I – Employment

Discrimination against qualified persons with disabilities is prohibited in all aspects of employment. Reasonable accommodations must be made in regard to job site accessibility, communication devices such as telecommunications devices for the deaf (TDD), and modified work schedules or other changes that would allow that person to fulfill his or her job duties. Employers with 25 or more employees were required to comply with this law by July 26, 1992 and private businesses with 15 to 24 employees by July 1994.

Title II – Public Services

All services, programs, and activities provided by public entities or their agents are prohibited from discriminating against persons with disabilities. In general, if a person with disabilities can use the public transportation system, then the public entity may not deny the individual with disabilities the opportunity to use public transportation. In addition, it prohibits public entities from providing services that discriminate against individuals with disabilities. Specific requirements include the following:

- New or leased vehicles for fixed route service and demand responsive service must be accessible (unless equivalent service is provided to persons with disabilities).
- Public entities, which provide fixed route service, must also provide comparable paratransit service.
- Remanufactured vehicles (structural changes) must be accessible
- New facilities must be accessible and alterations to transit facilities must include accessible features.
- Rail systems must include a key station plan and be accessible.
- Rapid and light rail systems must have at least one accessible car per train.

Title III – Public Accommodations and Services Operated by Private Entities

Public accommodations must be accessible to persons with disabilities even if they are owned by the private sector. Access must be provided in such public places as theaters, hotels, stores, and public transit stations. Transportation provided for the public by private entities must also be accessible.

Title IV – Telecommunications Relay Services

Telephone companies must provide telecommunication relay devices for those persons with hearing or speech impairments. A TDD is a machine that employs graphic communication in the transmission of coded signals through a wire or radio communication system. A person with disabilities can use a TDD to call the operator who also has a TDD and communicates through a third party.

Title V – Miscellaneous Provisions

Every public entity operating fixed route transit (except for commuter bus, commuter rail, or intercity rail services) is required to submit a plan which includes an implementation schedule with annual updates detailing how paratransit services will be implemented and will be in full ADA compliance. There is a full public participation process throughout the entire planning process.

The following six criteria have been developed to define “comparable paratransit service”:

- Operate in the same service areas as the fixed route system.
- Response time that is comparable to the fixed route system.
- Fares may not be more than two and a half times the fare of the fixed route system.
- Hours and days of paratransit service must be comparable to that of the fixed route service.
- Trip purpose may not be prioritized.
- Service availability may not be limited because of capacity constraints.