Order Code RL33057

Surface Transportation Reauthorization: Environmental Issues and Legislative Provisions in SAFETEA-LU (H.R. 3)

September 1, 2005

(name redacted)
Environmental Policy Analyst
Resources, Science, and Industry Division

Surface Transportation Reauthorization: Environmental Issues and Legislative Provisions in SAFETEA-LU (H.R. 3)

Summary

On August 10, 2005, President Bush signed the Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2005: A Legacy for Users (SAFETEA-LU or SAFETEA). The act authorizes federal surface transportation programs (highway, highway safety, and transit programs) undertaken by the U.S. Department of Transportation (DOT) for FY2005-FY2009. The previous authorization for FY1998-FY2003, the Transportation Equity Act for the 21st Century (TEA-21, P.L. 105-178), expired on September 30, 2003. Since then, surface transportation programs operated in accordance with a series of extensions.

During the reauthorization process, certain environmental issues garnered significant attention from both Members of Congress and interested stakeholders (e.g., state transportation agencies, transportation construction organizations, and environmental groups). This attention was due to both the impact that surface transportation projects can have on the environment (and, possibly, the costs associated with addressing those impacts) and the impact that compliance with environmental requirements can have on project delivery.

SAFETEA includes a variety of environmental provisions. Generally, they *authorize funding* to eliminate, control, mitigate, or minimize environmental impacts associated with surface transportation programs or projects. Funding was authorized both for broad programs (e.g., the Congestion Mitigation and Air Quality Improvement Program) and for specific types of projects (e.g., the purchase of clean fuel vehicles and programs to control noxious weeds). Funding levels for such activities generally increased in actual dollars compared to TEA-21.

The provisions also *specify procedures* that are intended to expedite compliance with certain environmental requirements. The most attention and debate related to changes in the procedures DOT must follow to comply with the Clean Air Act's conformity requirements; with environmental review requirements of the National Environmental Policy Act (NEPA); and with DOT requirements regarding the use of publicly owned parks, refuges, and historic sites (known as "Section 4(f)" requirements). In particular, a 180-day statute of limitations was established on judicial claims on certain final agency actions and Section 4(f) was amended to allow the use of parks, refuges, and historic sites if that use results in de minimis impacts.

Two provisions that generated significant stakeholder interest were *not* included in SAFETEA. The first was a provision in the Senate-passed version of H.R. 3 that would have required a 2% set-aside of each state's Surface Transportation Program funds for a "Highway Stormwater Discharge Mitigation Program." The second was an exemption for aviation refueling trucks from secondary containment requirements of certain provisions of the Clean Water Act.

This report provides background and detail on significant environmental provisions in SAFETEA. It will not be updated.

Contents

List of Tables

Surface Transportation Reauthorization: Environmental Issues and Legislative Provisions in SAFETEA-LU (H.R. 3)

On August 10, 2005, President Bush signed the Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2005: A Legacy for Users (SAFETEA-LU or SAFETEA). The act reauthorizes federal highway, highway safety, and transit programs (also referred to generally as surface transportation programs) undertaken by the U.S. Department of Transportation's (DOT) Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) for FY2005-2009. The previous long term authorization (for FY1998-2003), the Transportation Equity Act for the 21st Century (TEA-21, P.L. 105-178), expired on September 30, 2003. Since then, surface transportation programs operated as a result of 11 extension acts.

The delay in reauthorization had to do primarily with issues regarding how much money would be authorized and how transportation funds would be distributed among the states.[1] Certain environmental issues also garnered significant attention and debate from both Members of Congress and interested stakeholders (e.g., state transportation agencies, transportation construction organizations, and environmental groups). This attention was due to both the impact that surface transportation projects can have on the environment and the impact that compliance with environmental requirements can have on project delivery.

SAFETEA includes many provisions regarding the environment. Generally, the provisions do one of two things. First, they *authorize funding* to eliminate, control, mitigate, or minimize certain environmental impacts associated with surface transportation programs or projects. Examples include authorization of funding for the Congestion Mitigation and Air Quality (CMAQ) program, authorization of funding for clean fuel buses, and authorization of funding for projects that would control noxious weeds.[2] Second, they *specify procedures* that would be required to be undertaken to comply with certain environmental requirements. For example, SAFETEA includes provisions intended to "streamline" DOT's compliance with environmental review requirements of the National Environmental Policy Act (NEPA, 42 U.S.C. §4321 et seq.) and change the process for demonstrating conformity with elements of the Clean Air Act (42 U.S.C. §7401 et seq.).

---

[1] For information about general provisions of SAFETEA and funding issues, see CRS Issue Brief IB10138, *Surface Transportation: SAFETEA-LU*.

[2] Funding for already-existing programs or projects generally increased in actual dollar amounts, compared to funding levels in TEA-21. Detail regarding funding levels is provided in the discussion of individual programs or projects.

This report focuses on environmental provisions of SAFETEA that may impact federal funding or delivery of surface transportation programs or projects. Specifically, this report addresses legislative provisions that will change how DOT complies with elements of NEPA and the Clean Air Act. Current requirements of each law sufficient to understand the provisions of SAFETEA are discussed. Also included is an overview of selected environmental provisions that create new or make changes to existing programs or procedures that are intended to mitigate or minimize the environmental impacts of surface transportation programs.

Issues and Legislation Regarding Environmental "Streamlining"

During the TEA-21 reauthorization process, some state transportation departments and transportation construction organizations reported to Congress that the process required to obtain various federal, state, and local environmental approvals and permits, often needed for major highway projects, was sometimes inefficiently implemented and overly time-consuming. In particular, stakeholders expressed concern about the lack of effective interagency cooperation when multiple federal or state agencies were required to participate in a project. Congress attempted to address these concerns by including "Environmental Streamlining" provisions in TEA-21.

Although not defined by the statute, FHWA defines environmental streamlining as the timely delivery of federally funded transportation projects, while protecting and enhancing the environment. Because major transportation projects may be affected by dozens of federal, state, and local environmental requirements, administered by multiple agencies, improved interagency cooperation was identified by Congress as a critical element to the success of environmental streamlining. The streamlining provisions of TEA-21 required the Department of Transportation (DOT) to develop and implement a "coordinated environmental review process" for highway projects that either do have, or may have, a significant impact on the environment (approximately 9% of all highway projects fall into one of these categories).[3] This coordinated review process encouraged full and early participation by all relevant federal and state agencies required to participate in a highway project.

Since the passage of TEA-21, numerous administrative activities have been undertaken to facilitate streamlining. However, some Members of Congress expressed the need for further legislation to expedite the environmental review process required of highway construction and transit projects. As a result, SAFETEA includes provisions intended to further streamline the environmental review process. Discussed below are selected elements of the environmental review process relevant to provisions in SAFETEA and a summary of legislative provisions that may be generally categorized as "streamlining." The provisions deal primarily with NEPA, but could also be used to expedite compliance with other environmental requirements.

---

[3] General Accounting Office, *Highway Infrastructure: Stakeholders' Views on Time to Conduct Environmental Reviews of Highway Projects*, GAO-03-534, May 23, 2003, pp 3-4.

The Environmental Review Process Under NEPA. Before final design, property acquisition, or construction on a highway or transit project can proceed, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) must demonstrate compliance with all applicable state and federal legal requirements regarding the environment, including NEPA. NEPA requires the preparation of an environmental impact statement (EIS) for all major federal actions "significantly" affecting the environment. An EIS is a full disclosure document that provides a description of the proposed project, the existing environment, and an analysis of the anticipated beneficial and adverse environmental effects of the proposed project and all reasonable alternatives. Preparation is done in two stages, resulting in a draft and final EIS.

Projects for which it is not initially clear whether impacts will be significant require the preparation of an environmental assessment (EA). If it is determined, at any time during the EA that a project's impacts *will be* significant, an EIS must be prepared. However, if the EA determines that the project creates no significant environmental impact, a Finding of No Significant Impact (FONSI) will be issued by DOT. The FONSI must briefly present the reasons why the project will not have a significant effect on the environment. According to FHWA, in FY2001, projects requiring an EA and a subsequent FONSI accounted for approximately 6% of FHWA-funded highway projects (representing approximately 15% of the $17.6 billion in federal funding distributed to states in FY2001); approximately 3% of highway projects required an EIS (accounting for just under 9% of FY2001 federal funding); the remainder were categorically excluded from the requirement to prepare either an EA or an EIS.[4]

The Council on Environmental Quality (CEQ), in the Executive Office of the President, promulgated regulations specifying NEPA compliance procedures applicable to all federal agencies.[5] At CEQ's direction, DOT promulgated its own regulations governing the preparation of EISs and related environmental documentation required for FHWA and FTA projects.[6] In addition to formal regulations, DOT has issued a variety of guidance documents and technical advisories to assist decision makers in completing the NEPA process for transportation projects.[7] NEPA compliance fits into the overall project delivery process as a subset of one or more of the following four major elements generally considered to be part of the full transportation project delivery process: preliminary

---

[4] General Accounting Office, *Highway Infrastructure: Stakeholders' Views on Time to Conduct Environmental Reviews of Highway Projects*, GAO-03-534, May 23, 2003, pp. 3-4.

[5] 40 C.F.R. §§1500-1508.

[6] 40 C.F.R. §771; final rule at 53 *Federal Register* 32646.

[7] The FHWA Office of NEPA Facilitation maintains a website, "NEPA: Project Development Process," which includes information regarding FHWA's environmental policy, FHWA Technical Advisories, and a variety of guidance materials to facilitate compliance with NEPA at all stages of the process. The site is accessible at [http://environment.fhwa.dot.gov/projdev/index.htm] as of August 24, 2005. Information regarding NEPA compliance for FTA is available on the agency's Environmental website at [http://www.fta.dot.gov/1243_ENG_HTML.htm], as of September 3, 2005.

engineering, final or construction engineering, right-of-way acquisition, and construction.

Interagency Cooperation. Projects requiring NEPA documentation involve the participation of a "lead agency" and "cooperating agencies." The lead agency is defined in CEQ regulations as the federal agency that has taken responsibility for preparing the NEPA documentation.[8] For federally funded highway and transit projects, the lead agency will usually be DOT (specifically FHWA or FTA). The project applicant, such as a state DOT, will likely participate in the NEPA process as a joint lead agency. The project applicant is required to initially develop substantive portions of the environmental document, while DOT is responsible for its scope and content.[9]

DOT requires that the EIS demonstrate that appropriate comments and coordination were solicited from relevant federal, state, and local cooperating agencies. Cooperating agencies are required to participate in the NEPA process, when requested by the lead agency, if they are obligated to provide comments within their agency's jurisdiction, expertise, or authority. This means that an agency with jurisdiction over or expertise regarding any identified environmental consequence anticipated from a project is required to provide DOT with the appropriate input. For example, if historical and archeological preservation consequences are identified, the Advisory Council on Historic Preservation or the state historic preservation officer will likely be included as a cooperating agency during the environmental review process. If farmland impacts are identified, the EIS should summarize the results of comments and analyses from the U.S. Department of Agriculture (USDA) and, as appropriate, state and local agriculture agencies.

For any given transportation project, compliance with a wide variety of legislative and regulatory requirements, requiring the participation of multiple agencies, may be required. DOT regulations require that the final EIS or the FONSI document compliance with all applicable environmental laws, executive orders, and other related requirements.[10] Depending upon the complexity of the project or resources impacted, a significant number of environmental requirements, in addition to NEPA, may be applicable. According to FHWA, legal requirements frequently applicable to highway projects are contained in the:

- Endangered Species Act of 1973 (16 U.S.C. §1531 et seq.);
- National Historic Preservation Act (16 U.S.C. §460 et seq.);
- Clean Water Act (33 U.S.C. 1251 et seq.); and
- "Section 4(f)"of the Department of Transportation Act of 1966 (40 U.S.C. §303) (see "Section 4(f) Requirements for Public Parks and Historic Sites" section, below) .

---

[8] 40 C.F.R. §1508.16.

[9] 23 C.F.R. §771.109(c).

[10] 23 C.F.R. §771.133.

For the requirements listed above, the U.S. Fish and Wildlife Service, the Advisory Council on Historic Preservation, the U.S. Army Corps of Engineers, or the Environmental Protection Agency (EPA) may be required to participate in the NEPA process as a cooperating agency. That participation may take such forms as providing comments on DOT documentation, performing scientific analysis, issuing permits, or providing an assessment of project impacts.[11]

The role of a cooperating agency is frequently set out in a memorandum of agreement with the lead agency. That agreement may involve the cooperating agency drafting certain portions of the EIS that relate to its jurisdiction or expertise. For example, if a highway project has the potential to impact prime farmland, USDA may agree to provide FHWA with an analysis of those impacts.

Project "Purpose and Need" and Alternatives. As required under both CEQ and DOT regulations, the EIS must include a statement clarifying the project's "purpose and need." This section of an EIS is the foundation upon which subsequent sections of the EIS are built. DOT requires the discussion to be clear and specific and support the need for the project. Further, it is the purpose and need section that drives the selection of the range of alternatives that will be considered and analyzed for a given project. CEQ regulations require agencies to discuss a range of alternatives that will include all "reasonable alternatives" under consideration as well as any other alternatives that were considered but subsequently eliminated from consideration. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the agency or a potentially affected stakeholder. The alternatives must also include a "no action" alternative (e.g., short-term safety and maintenance improvements) that may serve as a baseline against which "build" alternatives are compared.

In his capacity as the Chairman of the Interagency Transportation Infrastructure Streamlining Task Force,[12] Transportation Secretary Norman Mineta sought guidance from CEQ Chairman James Connaughton regarding the role of lead and cooperating agencies with regard to developing a highway project's "purpose and need."[13] Secretary Mineta referred to the sometimes extended interagency debates over purpose and need statements as a reason for delay in highway project development.

In his response, Chairman Connaughton cited excerpts of NEPA itself as well as CEQ regulations that specify that the lead agency has the authority for and

---

[11] It is DOT policy that compliance with all applicable environmental requirements be coordinated under the "NEPA umbrella." This means that, for any given transportation project, any study, review, or consultation required by law, that is related to the environment, should be conducted within the framework of the NEPA process.

[12] The Task Force was established under Executive Order 13274, "Environmental Stewardship and Transportation Infrastructure Project Review," available at [http://www.fhwa.dot.gov/stewardshipeo/index.htm], as of September 3, 2005.

[13] Text of Secretary Mineta's May 6, 2003 letter, and Chairman Connaughton's May 12, 2003 response, are available at [http://www.fhwa.dot.gov/stewardshipeo/minetamay6.htm], as of September 3, 2005.

responsibility to define a project's purpose and need. Further, Chairman Connaughton referenced previous federal court decisions giving deference to the lead agency in determining a project's purpose and need. While not addressed in this correspondence, CEQ regulations also specify the selection of reasonable alternatives as within the authority of the lead agency.

Designation of Categorical Exclusions. Transportation projects that do not individually or cumulatively have a significant social, economic, or environmental effect, and which DOT has determined from past experience with similar projects have no significant impact, are excluded from the requirement to prepare an EA or EIS. Such actions are processed as categorical exclusions. In FY2001, almost 91% of all FHWA projects were classified as categorical exclusions.[14]

A common misconception is that such projects are categorically excluded from compliance with NEPA. Such projects *do* require a certain level of NEPA compliance but are excluded from the requirement to prepare an EA or EIS. Unlike EAs or EISs, categorical exclusions are not a type of document, but are classes of DOT actions that may be, in effect, pre-approved. For example, "transportation enhancements" often fall into this category of action.[15]

DOT regulations specify two groups of categorical exclusions. Whether or what type of documentation may be necessary to demonstrate compliance will depend upon into which of the two groups the project falls. The first group includes projects that call for no or limited construction.[16] Examples include the construction of bicycle and pedestrian lanes, landscaping, emergency repairs, and the installation of pavement markings or traffic signals. The second group consists of actions with a higher potential for impacts than the first group, but which are generally determined to meet the criteria for a categorical exclusion because environmental impacts are minor.[17] An example of such a project is the modernization of a highway through resurfacing, reconstruction, adding shoulders, or adding auxiliary lanes.

Since the second group of actions has a higher potential for impacts than the first, DOT may require that the state or local project sponsor provide analyses or documentation to allow DOT to determine if the categorical exclusion designation is proper. Further, although a categorically excluded project's environmental impacts may not be "significant" as defined under NEPA, requirements of other laws may

---

[14] General Accounting Office, *Highway Infrastructure: Stakeholders' Views on Time to Conduct Environmental Reviews of Highway Projects*, GAO-03-534, May 23, 2003.

[15] Activities classified as "transportation enhancements" are specifically listed by Congress under 23 U.S.C. §101(a)(35). For more information, see FHWA's Transportation Enhancement website at [http://www.fhwa.dot.gov/environment/te/index.htm],as of September 3, 2005. Also, see the "Programs or Funding to Mitigate Environmental Impacts" section below for a list of existing projects eligible for funding, changes in eligibility under SAFETEA, and changes in funding apportionments for such programs.

[16] Specified under 23 C.F.R. §771.117(c).

[17] Specified under 23 C.F.R. §771.117(d).

still apply. For example, the installation of traffic signals is generally considered an action with no environmental impacts. However, if those traffic signals will be installed in a historic district, compliance with provisions of the National Historic Preservation Act may apply. Or, if the proposed route of a bicycle path borders endangered species habitat, a biological assessment, in compliance with the Endangered Species Act, may be required.

"Section 4(f)" Requirements for Public Parks and Historic Sites. Another requirement that is generally carried out within the context of the NEPA process is compliance with Section 4(f) of the Department of Transportation Act of 1966.[18] Section 4(f) requirements apply to the use of publicly owned parks and recreation areas, wildlife and waterfowl refuges, and to publicly or privately owned historic sites of national, state, or local significance. The law prohibits the use of a Section 4(f) resource for a transportation project unless there is no "prudent and feasible" alternative to do otherwise, and the project includes all possible planning to minimize harm to the resource.

When a project does propose the use of a Section 4(f) resource, a separate "Section 4(f) evaluation" must be prepared and included with the appropriate NEPA documentation. The evaluation must analyze alternatives and design shifts that avoid the protected resource. If Section 4(f) land is subsequently chosen for use in a project, the evaluation must demonstrate that the use of other alternatives would have resulted in unique problems. "Unique problems" are present when there are truly unusual factors or when the costs or community disruption reach "extraordinary magnitude." This test was introduced in Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1971), and subsequently referred to as "Overton Park Criteria."

SAFETEA Provisions Regarding NEPA and Section 4(f). Unlike TEA-21, the term "streamlining" is not used in SAFETEA. However, the intended effect is the same — to expedite compliance with certain environmental requirements, primarily NEPA and Section 4(f).

With regard to NEPA, many of the provisions in SAFETEA codify existing regulatory requirements, such as: specifically designating DOT as the lead agency for surface transportation projects; specifying the role of the lead and cooperating agencies; and allowing deadlines for decision-making to be set.[19] Following are key SAFETEA provisions related to streamlining that change existing statutory or regulatory requirements:

---

[18] Section 4(f) of the DOT Act was originally set forth at 49 U.S.C. § 1653(f) and applies to all DOT projects. A similar provision, found at 23 U.S.C. § 138, applies specifically to Federal-aid highways. In 1983, as part of a general recodification of the DOT Act, 49 U.S.C. § 1653(f) was formally repealed and codified in 49 U.S.C. § 303 with slightly different language. This provision no longer falls under a "Section 4(f)," but DOT has continued this reference, given that over the years, the whole body of provisions, policies, and case law has been collectively referenced as Section 4(f).

[19] For more information on issues related to streamlining, see CRS Report RL32024, *Background on NEPA Implementation for Highway Projects: Streamlining the Process*.

- The establishment of a new entity in the NEPA process, referred to as a "participating agency," that includes those that intend to submit comments on NEPA documentation in addition to those that meet the definition of a cooperating agency;
- The establishment of procedures to be followed by lead and participating agencies for the collaborative development of the project's statement of purpose and need and project alternatives, including the establishment of deadlines on comments;
- The establishment of a 180-day statute of limitation on judicial claims on final agency actions related to environmental requirements;
- Authorization to allow the use of transportation funds to help agencies required to expedite the environmental review process;
- The establishment of a dispute resolution process when agencies disagree on elements of the environmental review process;
- Authorization to allow states to determine whether certain classes of projects may be processed as categorical exclusions; and
- Authorization to allow the establishment of state pilot programs to allow participating states to assume certain federal responsibilities regarding compliance with environmental laws.

With regard to Section 4(f), the law is amended to allow the use of Section 4(f) resources if it is established that such use results in de minimis impacts to the resource.

Detail on provisions in SAFETEA that are intended, either directly or indirectly, to streamline compliance with environmental requirements are listed in **Table 1**.

Table 1. SAFETEA Provisions Related to Streamlining Compliance with Environmental Requirements

Provision	Description
Environmental Compliance Procedures	
New project development procedures	Specifies new project development procedures for "Efficient Environmental Reviews for Project Decision-making"(elements of which are listed below) and repeals streamlining provisions established in TEA-21. The new procedures are required to be implemented for projects requiring an EIS and may be applied to other projects that require compliance with elements of NEPA. The project sponsor is required to inform DOT when the environmental review process should be initiated. [§6002(a)]
Lead and joint lead agency designation	Statutorily designates DOT as the lead federal agency. Designates the project sponsor (if a state or local government, as opposed to a private party) as the joint lead agency for the environmental review process; allows the joint lead agency to prepare any supporting documents if the federal lead agency provides guidance and assistance and ultimately approves the documents. [§6002(a)]

Provision	Description
Roles and responsibilities of "participating" agencies	Specifies that the lead agency must invite and designate certain agencies to participate in the NEPA process. A participating agency may be one that has special expertise regarding any of the impacts of the projects, is required to participate under some federal jurisdiction or authority, or intends to submit comments on the project. To the extent practicable, participating agencies are required to carry out their statutory obligations with regard to the project concurrently with reviews required under NEPA. [§6002(a)]
Project initiation process	Requires the project sponsor to initiate the environmental review process by notifying DOT of the type of work, termini, length, and general location of the proposed project, together with a statement of any federal approvals anticipated to be necessary for the proposed project. [§6002(a)]
Purpose and need development and alternatives analysis	Requires the lead agency, as early as practicable, to provide the public and participating agencies the opportunity to participate in defining the project's purpose and need and the range of alternatives to be considered. After the public's and agencies' participation, the lead agency shall determine the project's purpose and need, the alternatives to be considered, the methodologies to be used and level of detail required in the alternatives analysis, and the preferred alternative. [§6002(a)]
Coordination and scheduling of agency/public participation	Requires the lead agency to establish a schedule for coordinating public and agency participation in the environmental review process; specifies factors to be considered in establishing the schedule, such as responsibilities of participating agencies, the overall size of the projects, and the sensitivity of natural and historic resources potentially impacted by the project. [§6002(a)]
Dispute resolution	Establishes lead agency and participating agency responsibilities to identify and resolve disputes that could delay completion of the environmental review process; if an issue cannot be resolved within 30 days of the required dispute resolution meeting, the lead agency is required to notify all agency heads, the Governor, the Senate Environment and Public Works Committee, the House Transportation and Infrastructure Committee, and CEQ. [§6002(a)]
Establishment of performance measures	Requires DOT to establish performance measures and report progress toward improving and expediting the planning and environmental review process. [§6002(a)]
Financial assistance to affected agencies	Allows funds to be provided to affected federal, state, or tribal agencies participating in the environmental review process to support activities that contribute to expediting and improving transportation planning and delivery. [§6002(a)]

Provision	Description
Limit on claims	Prohibits claims seeking judicial review of a permit, license, or approval issued by a federal agency for highway or transit projects unless they are filed within 180-days after publication of a notice in the *Federal Register* announcing the final agency action, unless a shorter time is specified in the federal law under which the judicial review is allowed. [§6002(a)]
State assumption of responsibilities	Allows DOT to establish a pilot program for up to five states to assume DOT's environmental review responsibilities for projects funded under the recreational trails program (23 U.S.C. 104(h)) and for transportation enhancement activities (23 U.S.C. 101(a)(38)). Responsibilities may be assumed by the state, including acceptance of jurisdiction in federal court, in accordance with terms specified in a memorandum of understanding (MOU) between the state and DOT, for an initial period of no more than three years that may be renewed by mutual agreement after that. [§6003]
State assumption of responsibilities for categorical exclusions	Allows DOT to assign and a state to assume responsibility for determining whether certain designated projects may be classified as categorical exclusions, in accordance with criteria to be established by DOT. Terms of the state's authority will be specified in an MOU between the state and DOT for a renewable period of three years. Compliance monitoring and termination responsibility will be maintained by DOT. [§6004]
Categorical exclusion for designation for ITS projects	Requires DOT, within one year, to specify categorical exclusions for activities that support the deployment of Intelligent Transportation Systems (ITS). Directs DOT to develop a nationwide programmatic agreement governing the review of such activities in accordance with the National Historic Preservation Act, in consultation with the National Conference of State Historic Preservation Officers and the Advisory Council on Historic Preservation. [§6010]
State project delivery pilot program	Requires the establishment of a pilot program to allow Oklahoma, California, Texas, Ohio, and Alaska to assume certain federal environmental review responsibilities (in addition to categorical exclusion determinations). Responsibility could be assumed for environmental reviews required under NEPA, or any federal law, for one or more highway projects within the state. Federal responsibility for any conformity determination required under the Clean Air Act could not be assigned to the state. The program would be administered in accordance with a written agreement between U.S. DOT and the participating state DOT. U.S. DOT is directed to promulgate regulations to implement the pilot program within 270 days of enactment of SAFETEA. [§6005]

Provision	Description
Addition of design criteria that integrate natural resources concerns into transportation project planning	Amends standards for establishing design criteria for the National Highway System by adding the following publications that could be used when developing those criteria: FHWA's "Flexibility in Highway Design;" "Eight Characteristics of Process to Yield Excellence and the Seven Qualities of Excellence in Transportation Design" developed by the 1998 conference "Thinking Beyond the Pavement National Workshop on Integrating Highway Development with Communities and the Environment while Maintaining Safety and Performance;" and any other material that the DOT Secretary deems appropriate. [§6008]
Section 4(f) Compliance	
Change in the approval process for the use of public parks and refuges	Allows for the use of publicly owned parks and recreation areas, wildlife and waterfowl refuges if it is determined that such use would result in "de minimis impacts" to that resource; that determination must receive concurrence from the official with jurisdiction over that resource (e.g., the U.S. Fish and Wildlife Service, the National Park Service, or applicable state or local park authorities). [§6009(a)]
Change in the approval process for the use of historic sites	Allows for the use of a historic site if it is determined that such use would result in "de minimis impacts" to that resource; that determination must be made in accordance with provisions of the National Historic Preservation Act (16 U.S.C. 470f) that specify criteria for finding that the use will have no "adverse effect" on the site. [§6009(a)]
Clarification of existing standards	Requires DOT, within one year, to issue regulations clarifying factors to be considered and standards to be applied in determining whether alternatives are "prudent and feasible" under the Section 4(f) requirements. [§6009(b)]
Implementation study	Requires DOT to commission an independent review of the implementation of the new amendments; requires an evaluation of items such as: any efficiencies resulting from the amendments; the post-construction effectiveness of impact mitigation and avoidance commitments; and the number of projects with de minimis impacts. (No direct funding for this study is provided.) [§6009(c)]
Exemption of the Interstate System	Specifies that the Interstate System cannot be considered a "historic site" under provisions of Section 4(f); using the administrative procedures established under §106 of the National Historic Preservation Act (see March 10, 2005 *Federal Register* notice, pg. 11928); it may still be determined that individual elements of the Interstate System possess an independent feature of historic significance that may still be protected under Section 4(f) requirements. [§6007]

Source: Table prepared by the Congressional Research Service (CRS) based on an analysis of provisions of SAFETEA.

Issues and Legislation Regarding the Clean Air Act

One of the more obvious environmental impacts related to transportation is its generation of air pollution, in particular "smog" and "soot." Smog (ground-level ozone) is not directly emitted from vehicles, but is formed by the reaction in the presence of sunlight of nitrogen oxides (NOx) and volatile organic compounds (VOCs), both of which are emitted from vehicles as well as other sources. Soot (particulate matter or PM) can be generated from a variety of sources including the combustion of petroleum (notably, diesel fuel). If the concentrations of soot and smog in the air, in addition to other pollutants, exceed certain levels, they can have adverse effects on human health and the environment.

The National Ambient Air Quality Standards. The Clean Air Act directs the EPA to regulate emissions of air pollutants. Of relevance to transportation is EPA's authority to establish standards, based on certain health and environmental criteria, for ozone, carbon monoxide (CO), NOx, and PM.[20] The National Ambient Air Quality Standards (NAAQS), subsequently established by EPA, specify allowable concentrations and exposure limits for each "criteria pollutant." A geographic area that meets or exceeds the standard is considered to be in "attainment" for a particular NAAQS; areas that do not meet a standard are in "nonattainment."[21] A "maintenance" area is one that was previously in nonattainment, but is currently attaining the NAAQS subject to a maintenance plan.[22]

The NAAQS for particulates, CO, NOx, and short-term (one-hour) concentrations of ozone have been in effect since the 1970s. However, a more stringent standard for ozone (an 8-hour concentration) and new standards for fine particulates ($PM_{2.5}$) went into effect more recently. In April 2004, part or all of 474 counties were designated in nonattainment for the new ozone standard. In January 2005, EPA announced that part or all of 225 counties were in nonattainment for $PM_{2.5}$.[23]

---

[20] Regulated particulates are either "coarse" (between 2.5 and 10 micrometers in diameter, known as PM_{10}) or "fine" (less than 2.5 micrometers, known as $PM_{2.5}$). PM_{10} from transportation sources may come from brake and tire wear, pavement wear, and other vehicle degenerative processes. $PM_{2.5}$ are emitted from combustion sources, such as diesel engines. Fine particulates penetrate deeper into the lungs and remain lodged there, rather than being exhaled, causing negative impacts on health. Also included on the list of criteria pollutants are lead and sulfur dioxide. On-road mobile sources (i.e., transportation-related sources) are not significant sources of either of these pollutants.

[21] For information on areas currently designated as in nonattainment, see EPA's "Green Book Nonattainment Areas for Criteria Pollutants," available online at [http://www.epa.gov/oar/oaqps/greenbk/index.html], as of September 3, 2005.

[22] For a more extended discussion of issues regarding NAAQS, see CRS Report RL30853, *Clean Air Act: A Summary of the Act and Its Major Requirements*.

[23] For more information, see CRS Report RL32345, *Implementation of EPA's 8-Hour Ozone Standard*; and CRS Report RL32431, *Particulate Matter (PM2.5): National Ambient Air Quality Standards (NAAQS) Implementation*.

The Clean Air Act requires states to develop a State Implementation Plan (SIP) to demonstrate how they will implement, maintain, and enforce the NAAQS.[24] The SIP must include enforceable emission limitations and other control measures, as well as schedules and timetables for compliance with NAAQS, if applicable. Compliance deadlines vary, depending on the severity of the pollution, but generally a nonattainment area must demonstrate that it is making annual emission reductions sufficient to reach attainment by the applicable deadline. If necessary, the SIP must also include a "motor vehicle emissions budget," which establishes a goal the state must meet with regard to emissions from mobile sources such as cars, trucks, and buses. States submit initial SIPs and subsequent revisions to EPA for approval.

The attainment of NAAQS and the development of SIPs are relevant to surface transportation issues for a variety of reasons. For example, transportation agencies must consider SIP goals in developing long- and short-term transportation plans. Also, whether or not federal funds will be made available for a surface transportation project may depend upon whether the project can be shown to conform with the SIP.[25]

Conformity with Transportation Planning. State and metropolitan transportation planners are required under the Clean Air Act to ensure that their long-range transportation plans and short-range Transportation Improvement Programs (TIPs) conform with the motor vehicle emissions budget established in a SIP. Conformity is a way to ensure that federal funding and approval are given only to transportation projects that are consistent with a state's air quality goals.[26] Specifically, Section 176(c) of the Clean Air Act requires that planned transportation projects will not:

- Cause new air quality violations;
- Worsen existing NAAQS violations; or
- Delay attainment of relevant NAAQS.

Long-range transportation plans look at a 20-year planning horizon and specify the long-term goals for a metropolitan area's transportation system. Before a new transportation plan can be approved or a new project can receive federal funding, a regional emissions analysis must demonstrate that the emissions projected in the plan conform to the emissions budget established by the SIP. A new conformity demonstration must be made for a transportation plan at least every three years.

A TIP identifies major highway and transit projects to be funded in the short term (within the next three years) either in a metropolitan area (if that area is a nonattainment or maintenance area) or on a statewide basis. Metropolitan TIPs must

---

[24] 42 U.S.C. § 7410.

[25] Ozone nonattainment areas are classified according to the extent to which pollution levels exceed the standards; they made be designated as being in marginal, moderate, serious, severe, or extreme nonattainment.

[26] For more information, see guidance from FHWA: *Transportation Conformity: A Basic Guide for State and Local Officials*, June 19, 2000, available online at [http://www.fhwa.dot.gov/environment/conformity/con_bas.htm], as of September 3, 2005.

be updated at least every two years, statewide TIPS at least every three years. TIPs may also need to be updated when a new project is added. In practice, many large urban areas obtain a new conformity determination for their TIPs on an annual basis. Highway and transit projects cannot receive federal funds unless they are part of a conforming TIP.[27]

While conformity has been required for more than a decade, its impact is expected to grow in the next few years as a result of several factors, including the new NAAQS for ozone and fine particulates, and the increase in emissions from sport utility vehicles (SUVs) and other "light trucks."[28] These and other factors could contribute to numerous metropolitan areas facing a temporary suspension of highway and transit funds, unless they impose sharp reductions in vehicle, industrial, or other emissions. In 2003, the General Accounting Office (GAO, now called the Government Accountability Office) reported that, over the previous six years, only five metropolitan areas had to change transportation plans in order to resolve a conformity lapse; but about one-third of local transportation planners surveyed expected to have difficulty demonstrating conformity in the future.[29]

The CMAQ Program. In the year following the Clean Air Act Amendments of 1990, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)[30] directed the Secretary of DOT to establish and implement a Congestion Mitigation and Air Quality Improvement (CMAQ) program. ISTEA authorized a total of $6.0 billion in funding for surface transportation and other related projects that contribute to air quality improvements and congestion mitigation. In particular, it authorized funding for programs and projects intended to reduce carbon monoxide (CO) and ozone.

ISTEA established a formula to apportion CMAQ funds largely based on a state's population and pollution reduction needs. The population of each area in a state that is a nonattainment or maintenance area for ozone and/or CO is multiplied by a weighting factor based on the level of nonattainment (e.g., moderate, serious, severe). States with no maintenance or nonattainment areas for ozone or CO are guaranteed at least 0.5% of each year's authorized CMAQ funds.

Under TEA-21, a total of $8.1 billion was authorized for the program for FY1998-FY2003. TEA-21 also expanded the program to allow the use of CMAQ

---

[27] For a more extended discussion of the issues regarding conformity, see CRS Report RL32106, *Transportation Conformity Under the Clean Air Act: In Need of Reform?*

[28] SUVs, minivans, and pickup trucks, vehicles classified as "light trucks," are regulated less stringently than passenger cars. Their potential to impact air quality standards is tied to the fact that sales of such vehicles represent a significant proportion of new vehicle sales and that they potentially release greater levels of criteria pollutants than other passenger cars. For more information, see CRS Report RS20298, *Sport Utility Vehicles, Mini-Vans, and Light Trucks: An Overview of Fuel Economy and Emissions Standards*.

[29] See U.S. GAO, *Environmental Protection: Federal Planning Requirements for Transportation and Air Quality Protection Could Potentially Be More Efficient and Better Linked*, GAO-03-581, April 2003.

[30] ISTEA was the surface transportation authorization legislation for FY1991-FY1997.

funds for projects and programs intended to reduce PM_{10}. TEA-21 did not, however, change the apportionment formula that is based on ozone and CO. Therefore, states with maintenance or nonattainment areas for only PM_{10} receive the guaranteed minimum CMAQ funding.

Projects and programs eligible for CMAQ funds must come from a conforming transportation plan and TIP. According to guidance from DOT, such projects must also be expected to result in "tangible reductions" in CO, ozone precursor emissions, or PM_{10}.[31] CMAQ funds cannot be used for projects that will result in new highway capacity.

Specific types of projects eligible for CMAQ funds include, but are not limited to:

- Transportation control measures;
- Inspection and maintenance programs for auto emission controls;
- Extreme low-temperature cold start programs;
- The purchase of publicly owned, alternative fuel vehicles;
- Traffic flow improvements;
- Transit and public transportation programs;
- Pedestrian and bicycle facilities and programs;
- Travel demand management strategies;
- Outreach and rideshare programs; and
- Fare/fee subsidy programs.[32]

According to FHWA, the most effective CMAQ-funded projects tend to be large in scope and directly affect vehicle emissions, such as inspection and maintenance programs.

CMAQ funds are available to a wide range of government and nonprofit organizations, as well as private entities contributing to public-private partnerships. Decisions regarding which projects or programs to fund are generally made through the appropriate metropolitan and/or statewide transportation planning organizations, and involve the state or local air quality agency. Also, FHWA or FTA field offices are required to coordinate the project selection process with EPA.

SAFETEA Provisions Affecting Compliance with the Clean Air Act. Several air quality-related issues are addressed in SAFETEA. Provisions that relate, either directly or indirectly, to attainment of the NAAQS include:

- Amendments to the Clean Air Act regarding air quality monitoring data influenced by "exceptional events;"

---

[31] DOT Program Guidance: "The Congestion Mitigation and Air Quality Improvement (CMAQ) Program Under the Transportation Equity Act of the 21st Century (TEA-21)," April 1999, available online at [http://www.fhwa.dot.gov/environment/cmaq99gm.htm], as of September 3, 2005.

[32] Ibid.

- Amendments to the Clean Air Act regarding conformity demonstration requirements;
- Revisions to CMAQ eligibility requirements;
- Authorization to use CMAQ funds for specific state projects that may not otherwise qualify for *continued* funding under the program;
- Modification of programs funding clean fuel buses; and
- Modification of state high occupancy vehicle (HOV) requirements.

Amendments to Air Quality Monitoring Requirements. Section 6013 of SAFETEA amends Air Quality Monitoring requirements specified under §319 of the Clean Air Act. SAFETEA's amendment requires EPA to promulgate regulations that will take into consideration methods of handling air quality monitoring data that is influenced by "exceptional events." Such events are defined as those that affect air quality; are not reasonably controllable or preventable; are caused by human activity that is unlikely to recur at a particular location or a natural event; and are determined by EPA, in accordance with established regulations to meet criteria that would constitute an exceptional event.

EPA is directed to promulgate regulations implementing SAFETEA's amendment by March 1, 2006. Included among those regulations must be criteria and procedures to allow governors to petition EPA to exclude air quality data that is directly due to exceptional events from use in determining exceedances or violations of NAAQS. According to the SAFETEA conference report (H.Rept. 109-203), the development of such a process would mean that events such as forest fires or volcanic eruptions would not cause a region to fail to meet its federal air quality goals.

Amendments to Conformity Requirements. SAFETEA amends Section 176 of the Clean Air Act with regard to how and when conformity demonstrations are made. Under the amendments, updates of conformity demonstrations for transportation programs and plans will be required every four years instead of every three, and the planning horizon over which conformity must be demonstrated may be shortened from 20 years to 10. SAFETEA also establishes a 12-month grace period following a failure to demonstrate conformity before a lapse would be declared. Amendments to the conformity requirements are listed in **Table 2**.

Table 2. SAFETEA Provisions Related to Conformity Requirements

Action	Provision Summary
Conformity redetermination requirements	Adds a provision to §176 of the Clean Air Act to require a conformity redetermination for existing transportation plans or programs within two years after EPA: finds that a motor vehicle emissions budget is adequate; approves a SIP that establishes a motor vehicle emissions budget that has not yet been determined to be adequate; or promulgates SIP that establishes or revises an emissions budget. [§6011(a)]
Change in frequency of conformity determination updates	Amends §176 to allow the frequency of conformity determinations on updated transportation plans and programs to be every four years, instead of three, unless the metropolitan planning organization (MPO) elects to update it more frequently or is required to redetermine conformity. [§6011(b)]
Change in conformity horizon for long-term transportation plans	Adds a provision to §176 to allow an MPO, after consultation with local air pollution control agencies and the solicitation of public comments, to shorten the planning horizon for conformity determinations from 20 years to 10. [§6011(c)]
Allowance for the substitution of transportation control measures	Adds a provision to §176 to allow transportation control measures (TCMs) to be replaced, in or added to, a SIP without a new conformity determination, if the substitute TCM achieves equivalent or greater emissions reductions; concurrence on the substitution must be reached between the MPO, EPA, and the state air pollution control agency. [§6011(d)]
Grace period for conformity lapses	Adds a provision to §176 to allow a 12-month grace period before the consequences of a conformity lapse shall apply. [§6011(e)]
Regulations	Amends §176 to require EPA to revise the conformity rule within two years of the enactment of the bill to reflect the amendments in SAFETEA. [§6011(g)]

Source: Table prepared by CRS based on an analysis of provisions of SAFETEA.

Amendments to CMAQ Provisions. CMAQ funding for FY2005-FY2009 totals $8.6 billion. This compares to a total of $8.1 billion in funding authorization for the six fiscal years under TEA-21. SAFETEA amends the CMAQ apportionment formula under 23 U.S.C. §104(b)(2) and the CMAQ program requirements under 23 U.S.C. §149(b). Significant amendments include: an expansion of program funding eligibility requirements; changes in requirements applicable to states receiving the minimum apportionment; a directive that diesel retrofit projects will have funding priority over other projects; and a requirement that EPA, with DOT, publish guidance on cost-effective emission reduction technology. A complete list of legislative provisions regarding the CMAQ program is provided in **Table 3**.

Table 3. SAFETEA Provisions Related to the CMAQ Program

Action	Provision Summary
Authorization	A total of $8.6 billion is authorized for FY2005-FY2009. [§1101(a)(5)]
Apportionment	Amends 23 U.S.C. §104(b)(2) regarding the apportionment weighting factors for the CMAQ program to: change the weighting factor for ozone or carbon monoxide (CO) maintenance areas from 0.8 to 1.0; add a weighting factor of 1.0 for areas in non-attainment for the new 8-hour ozone standard; specify that the weighting factor of 1.2 for areas in non-attainment or maintenance for both CO *and* ozone will apply only to the population of the county in non-attainment or maintenance for CO. [§1103(d)]
"Congestion relief" funding	Allows states to use funds apportioned under the CMAQ program, as well as the Surface Transportation Program and the National Highway System, to fund a "real-time system management information program" (programs that provide states with the capability to monitor in real-time traffic and travel conditions of the major highways and to share the information with other states, local governments, and the traveling public). [§1201]
Eligibility for maintenance areas under the old 1-hour ozone standard	Amends 23 U.S.C. §149(b) to allow areas that were required to file maintenance plans with EPA to be eligible to receive CMAQ funds (this provision is intended to help those areas that were designated nonattainment under the previous 1-hour ozone standard, but are designated attainment for the new 8-hour ozone standard). [§1808(a)]
General changes to CMAQ eligibility	Limits the eligibility of projects identified by EPA to those that are likely to contribute to a high level of effectiveness in meeting air quality standards. [§1808(b)]
Specific changes to CMAQ eligibility	Amends 23 U.S.C. 149(b) to allow the following projects to be eligible for CMAQ funds: advanced truck stop electrification systems; projects that will improve transportation systems management and operations; integrated, interoperable emergency communications equipment; and diesel retrofits. [§1808(b)]
States receiving minimum apportionment	Amends 23 U.S.C. 149(c) to specify that states receiving the minimum apportionment (i.e., ½ of 1% based on the population apportionment) are allowed to use CMAQ funds for projects that would otherwise meet CMAQ eligibility requirements. [§1808(c)]
Publication of emission reduction guidelines	EPA is directed to publish emission reduction guidance listing diesel retrofit technologies and supporting technical information, including information regarding emission reduction effectiveness and cost-effectiveness. [§1808(d)]
CMAQ funding priorities	Directs state and metropolitan planning organizations (MPOs) to give funding priority for diesel retrofits and cost-effective congestion mitigation activities; allows agencies to retain existing authorities and roles in making final project selections. [§1808(d)]

Action	Provision Summary
Interagency consultation requirements	Directs DOT to encourage states and MPOs, in nonattainment and maintenance areas, to consult with state and local air quality agencies on estimated emission reductions from proposed CMAQ programs and projects. [§1808(e)]
Evaluation and assessment of projects	Directs DOT, in consultation with EPA, to evaluate and assess a representative sample of CMAQ projects to determine their impacts on air quality and congestion levels and to ensure the effective implementation of the program. Directs DOT to maintain and disseminate a database describing project impacts (no direct funding is provided for the evaluation or the database). [§1808(f)]
Allowances for specific projects in designated states	Authorizes specific states to use CMAQ funds for the following categories of projects that would not otherwise meet existing CMAQ eligibility requirements: — Public transit activities that serve a nonattainment or maintenance area (Montana); — Operation and maintenance of intelligent transportation system strategies that serve a nonattainment or maintenance area (Michigan); — Operation of passenger rail service between Boston, Massachusetts, and Portland, Maine (Maine); and — Operation of passenger rail service between Portland, Oregon and Eugene, Oregon (Oregon); and — The purchase of alternative fuel or biodiesel (Missouri, Iowa, Minnesota, Wisconsin, Illinois, Indiana, and Ohio) [§1808(g)-(k)].

Source: Table prepared by CRS based on an analysis of provisions of SAFETEA.

Clean Fuels Grant Programs. Under TEA-21, the Clean Fuels Formula Grant Program was created. The program was intended to accelerate the deployment of advanced bus technologies.[33] The program was developed to assist transit systems in purchasing low emissions buses and related equipment, constructing alternative fuel fueling facilities, modifying existing garage facilities to accommodate clean fuel vehicles and assisting in the utilization of biodiesel fuel. Eligible recipients of the grant funds were public transit operators in nonattainment or maintenance areas, both urbanized and non-urbanized.

TEA-21 provided $100 million in guaranteed funding each fiscal year for this program, including $50 million from the Formula Grants program and, $50 million from funding available under the Capital Investment Grants program for Bus and Bus Facilities. However, each DOT appropriations act since the enactment of TEA-21 has expressly provided that this funding be made available to projects in the Bus and Bus Facilities program under the Capital Investment Grants program. Therefore, FTA did not administer the program separately from the Bus and Bus Facilities program.

[33] 42 U.S.C. §5308.

Section 3010 of SAFETEA amends §5308 of Title 49 by making the program discretionary in nature rather than a formula grant program. (Hence, the new title of the program is the Clean Fuels Grant Program.) Grants under the program will be subject to the requirements of Urbanized Area Formula Grants (49 U.S.C. §5307). Under §3036, SAFETEA authorizes $49,600,000 for FY2005 (under the formula grant program specified under TEA-21), $43,000,000 for FY2006, $45,000,000 for FY2007, $49,000,000 for FY2008, and $51,500,000 for FY2009.

With regard to program implementation, the amendments specify that not more than 25% of the funds made available under this grant program may be used for clean diesel bus technology. The definitions of "clean fuel vehicles" and "eligible projects" remain largely the same as under existing law.

Also related to clean fuel buses is a new Clean School Bus Program.[34] Under §6015, SAFETEA establishes a program to authorize funds to assist localities seeking to reduce emissions from existing school buses. The legislation requires EPA to award grants to replace pre-1977 school buses and retrofit post-1990 school buses, and when appropriate, purchase alternative fuels. The program will allow for grants that will pay between 25% and 50% of the replacement or retrofit costs. Under this program, EPA is authorized to appropriate, and have available until expended, $55,000,000 for each of FY2006 and FY2007 and "such sums as are necessary" for each of FY2008, FY2009, and FY2010. While SAFETEA authorizes funding for this program, it does not designate a specific program from which funding would come (e.g., from CMAQ or STP funds).

HOV Lanes for Hybrid Vehicles. Under TEA-21, states were given the authority to grant exceptions from high occupancy vehicle (HOV) lane requirements to "Inherently Low Emission Vehicles" (ILEVs). The ILEV standard requires that a vehicle have no evaporative emissions (e.g., vehicles that run only on electricity or natural gas). Although they did not meet the definition of an ILEV, single occupancy hybrid vehicles were allowed by some states to use HOV lanes. This was not authorized under existing federal law. Because of the reduced emissions and improved fuel economy of hybrid vehicles, there was congressional interest in explicitly granting states the right to exempt hybrid vehicles from HOV lane requirements.[35]

Section 1121 of SAFETEA specifies that state agencies with jurisdiction over the operation of an HOV facility must establish occupancy requirements for vehicles using those facilities. Vehicles with fewer than two passengers will not be allowed to use an HOV facility, with the exception of: motorcycles and bicycles, public transportation vehicles, "low-emission and energy-efficient" vehicles, and High Occupancy Toll (HOT) vehicles. A state may also choose to allow low-emission and energy-efficient vehicles to pay a toll to use HOV lanes.

---

[34] EPA also funds a Clean School Bus USA program. For FY2005, Congress appropriated $7.5 million for cost-shared grant programs. For more information about the program, see [http://www.epa.gov/cleanschoolbus/index.htm], available as of September 3, 2005.

[35] For more information, see the discussion on "Hybrid Vehicles" in CRS Issue Brief IB10128, *Alternative Fuels and Advanced Technology Vehicles: Issues in Congress*.

Low-emission and energy-efficient vehicles are defined to include ILEVs or vehicles meeting Tier II emissions levels established under section 202(i) of the Clean Air Act (42 U.S.C. 7521(i)) for a specific vehicle make and model. To qualify for the low-emission and energy-efficient vehicle exemption, the vehicle must also meet one of the following requirements: be an alternative fuel vehicle operating on alternative fuel or, if it is propelled by on-board hybrid technologies, meet particular fuel economy performance requirements. Further, the state agency must create a program that defines how such qualifying vehicles are selected and certified, and establish a method to label qualifying vehicles. SAFETEA provides for the discontinuation of these exceptions if the operation of HOV lanes becomes seriously degraded as a result of lane exceptions.

Programs or Funding to Mitigate Environmental Impacts

In addition to provisions that relate to streamlining environmental compliance or complying with elements of the Clean Air Act, there are a variety of provisions throughout SAFETEA that relate in some way to the environment. Generally, those provisions create or fund programs or projects intended to minimize or mitigate environmental impacts related to surface transportation projects.[36]

Transportation Enhancement Funding and Eligibility. Since the inception of the program under ISTEA, states have been required to obligate 10% of their STP funds for Transportation Enhancement (TE) activities. TEs are projects intended to improve communities' cultural, aesthetic, and environmental qualities. To be eligible for TE funding, a project must "relate to surface transportation" and fit into one or more of the following 12 eligible categories:[37]

- Provision of facilities for pedestrians and bicycles,
- Provision of safety and educational activities for pedestrians and bicyclists,
- Acquisition of scenic easements and scenic or historic sites,
- Scenic or historic highway programs,
- Landscaping and other scenic beautification,
- Historic preservation,
- Rehabilitation and operation of historic transportation buildings, structures, or facilities,
- Preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian or bicycle trails),
- Control and removal of outdoor advertising,
- Archaeological planning and research,

---

[36] Of the projects receiving funding, most are authorized to receive those funds from the Surface Transportation Program (STP) or the National Highway System (NHS) program. The STP provides funding that may be used by states and localities for projects on any federal-aid highway. The NHS program provides funding to states for improvements to rural and urban roads that are part of the national highway system, including the Interstate System and designated connections to major intermodal terminals.

[37] 23 U.S.C. §101(a)(35)

- Environmental mitigation to address water pollution due to highway runoff or reduce vehicle-caused wildlife mortality while maintaining habitat connectivity, and
- Establishment of transportation museums.

SAFETEA changes the set-aside requirements for TEs and expands the eligibility requirements. Under §1113(c), the 10% set-aside from STP funds is changed to allow a state, from FY2006 onwards, to set-aside the greater of 10% of funds apportioned the state under the STP, or the dollar amount previously set aside for TE activities in FY2005.[38] Under §1122(a), the definition of TE activities is amended slightly to include historic battlefields (under the scenic easements category) and inventory of billboards (as well as control and removal). Other categories remain unchanged.

Environmental Restoration and Pollution Abatement. Under §6006(b), SAFETEA authorizes funding and expands eligibility requirements for "environmental restoration and pollution abatement" activities. Eligibility is extended to projects involving retrofitting and construction of stormwater treatment systems to meet federal and state requirements to address water pollution or environmental degradation caused wholly or partially by a transportation facility. The expenditure of funds is limited to 20% of the total cost of an ongoing reconstruction, rehabilitation, resurfacing or restoration project. Current law allows a state to use STP funds for such projects. As amended by SAFETEA, the use of NHS funds will be allowed as well.

Control of Noxious Weeds. Under §6006(c), SAFETEA expands funding eligibility under both the STP and NHS programs for activities to control noxious weeds and noxious aquatic weeds and to establish native plant species. Activities related to transportation projects that may be carried out are: the establishment of plants selected by state and local transportation authorities to perform abatement of stormwater runoff, stabilization of soil, or aesthetic enhancement; and management of plants which impair or impede the establishment, maintenance, or safe use of a transportation system. Specific activities include:

- Rights of way surveys to determine management requirements to control noxious weeds, brush, or trees considered to be a threat to safety or maintenance of transportation systems;
- Control or elimination of plants that impair or impede the establishment, maintenance, or safe use of a transportation system;
- Establishment of plants, whether native or non-native with a preference for native when possible, for the purposes of abatement of stormwater runoff, stabilization of soil, or aesthetic enhancement;
- Elimination of plants to create fuel breaks for the prevention and control of wildfires; and
- Training.

---

[38] In SAFETEA, an average of $6.4 billion is authorized to be appropriated to STP for each fiscal year.

Research Grants. Under §5101, SAFETEA authorizes funding out of the Highway Trust Fund (other than the Mass Transit Account) for a variety of research programs. The Surface Transportation Research, Development, and Deployment Program is authorized to be appropriated a total of $196,400,000 for each fiscal year to carry out certain research activities. Included among them are projects listed under §5513 of SAFETEA. Projects that may be considered "environmental" research include:

- $750,000 for each of FY2006 through FY2009, and available until expended, to the University of Montana for use in carrying out the Hydrogen-Powered Transportation Research Initiative. [§5513(h)]
- $2,500,000 in each of FY2006 through FY2009 to the University of Kansas Transportation Research Institute for research and development of advanced vehicle technology concepts. The research is to focus on vehicle emissions, fuel cells and catalytic processes, and intelligent transportation systems. [§5513(j)]
- $1,000,000 for FY2006, and available until expended, to the University of Vermont for research, development and field testing of hydrogen fuel cell and biofuel transportation technology. [§5513(l)]

Surface Transportation Environment and Planning Cooperative Research Program. Under TEA-21, DOT established the Surface Transportation-Environment Cooperative Research Program (23 U.S.C. §507). Included among the Program's research priorities were requirements to: improve understanding of the factors that contribute to the demand for transportation; develop indicators of economic, social, and environmental performance of transportation systems to facilitate analysis of potential alternatives; and study the relationship between highway density and ecosystem integrity. One component of the program was the establishment of an Advisory Board to make recommendations on environmental and energy conservation research, technology, and technology transfer activities related to surface transportation. Under the program, the Secretary was authorized to make grants to, and enter into cooperative agreements with, the National Academy of Sciences to conduct activities relating to transportation-environmental research. Over TEA-21's authorization period (FY1998-FY2003), Congress did not appropriate funds for this program.

Under §5207 of SAFETEA, $16,875,000 of the Surface Transportation Research funds are set aside for each of FY2006 through 2009 and existing provisions under Title 23 of the program are amended. The program is modified to include a provision for DOT to administer the program and sharpen the focus of the research through stakeholder input via workshops, symposia, and an expert panel. The existing research priority regarding the study of the relationship between highway density and ecosystem integrity is removed.

Nonmotorized Transportation Pilot Program. Under §1807 of SAFETEA, DOT is directed to construct a network of nonmotorized transportation pilot programs in Columbia, Missouri; Marin County, California; Minneapolis-St. Paul, Minnesota; and Sheboygan County, Wisconsin. The program is to include the development a network of nonmotorized transportation infrastructure facilities,

including sidewalks, bicycle lanes, and pedestrian and bicycle trails that connect directly with transit stations, schools, residences, businesses, recreation areas, and other community activity centers. The purpose of the program is to demonstrate the extent to which bicycling and walking can carry a significant part of the transportation load. DOT is directed to develop statistical information on changes in motor vehicle, nonmotorized transportation, and public transportation usage in communities participating in the program and assess how the changes decrease congestion and energy usage, and promote better health and a cleaner environment.

To implement the program, grants of $25,000,000, out of the highway trust fund (other than the Mass Transit Account), are authorized for each of FY2006 through 2009. Grants of $6,250,000 per fiscal year may be made to state, local, and regional agencies in each of the four communities.

Use of Recycled or Reused Materials. SAFETEA includes several provisions that are intended to promote the recycling or reuse of certain materials. Types of materials, and provisions related to each, include:

- *Debris from demolished buildings* — Directs states that demolish a bridge or overpass to make demolition debris available for beneficial use (e.g. shore erosion control or stabilization, ecosystem restoration, and marine habitat creation) by a federal, state, or local government. [§1805]
- *Recycled coolant* — Directs the President to conduct a review of federal procurement policy of recycled coolant and take into consideration recycled coolant produced from processes that are energy efficient; generate no hazardous waste; produce no emissions of air pollutants; present lower health and safety risks to employees at a plant or facility; and recover at least 97% of the glycols from used antifreeze feedstock. [§6014]
- *Recovered mineral component* — Amends Subtitle F of the Solid Waste Disposal Act (42 U.S.C. §6962) to direct EPA and each agency head to implement procurement requirements and incentives for use of cement and concrete incorporating recovered mineral component, such as coal combustion fly ash or blast furnace slag. Priority is to be given to achieving greater use of recovered mineral components in cement or concrete projects for which recovered mineral components historically have not been used or have been used minimally. [§6017]
- *Granular mine tailings* — Amends Subtitle F of the Solid Waste Disposal Act to direct EPA, in consultation with the Secretary of DOT and heads of other federal agencies, to establish criteria for the safe and environmentally protective use of granular mine tailings from the Tar Creek, Oklahoma Mining District, for cement or concrete projects and transportation construction projects (including those involving the use of asphalt). [§6018]

Noteworthy Provisions Not in the Final Bill

Of the environmental provisions in the final bill, two that generated significant debate were *not* included. The first related to funding for stormwater mitigation programs. The second related to secondary containment requirements applicable to aviation refueling trucks.

Set-Aside for Stormwater Mitigation Program Funding. The Senate-passed version of H.R. 3 would have required the establishment of a Highway Stormwater Discharge Mitigation Program. The provision in the Senate-passed version of H.R. 3 (previously at §1620) would have required each state to set aside 2% of its STP apportionment for mitigation projects to improve the quality of stormwater discharge from federal-aid highways. Funding could have been provided for projects that reduce flooding; recharge groundwater; promote natural filters; minimize stream bank erosion; and improve water quality. The provision was ultimately removed during conference.

As it is currently written, the federal requirements for STP funding eligibility include "Environmental mitigation to address water pollution due to highway runoff." However, it does not require a specific percentage of STP funds to be set aside for such projects.

Secondary Containment Exemption for Aviation Refueling Vehicles. One element of the Clean Water Act is a requirement that certain facilities that store oil on-site, above certain thresholds, establish oil spill prevention and containment procedures. The Spill Prevention, Control, and Countermeasure (SPCC) rule (40 CFR 112) requires facilities to plan for and have procedures in place to prevent an oil spill that could reach navigable waters and, if a spill were to occur, to be able to contain, clean up, and mitigate the effects of that spill.

On March 9, 2005, EPA responded to an aviation industry request for clarification on how the SPCC planning requirements apply to aviation refueler trucks. According to EPA, mobile refueler trucks are required to have secondary containment sufficient to contain a spill of oil from the largest compartment of a parked truck, in compliance with the SPCC rules.

Some representatives from the aviation industry argued that meeting this requirement is impractical and sought relief from Congress. During the Senate debate on H.R. 3 and during conference, it was widely speculated among interested stakeholders that a provision would be added to the transportation reauthorization bill to exempt aviation refueling vehicles from SPCC requirements. However, such a provision was not added.