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Environmental Provisions in Surface Transportation Reauthorization Legislation: TEA-LU (H.R. 3) and SAFETEA (S. 732)

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Linda G. Luther
Environmental Policy Analyst
Resources, Science, and Industry Division

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Summary

During the 108th Congress, both the House and Senate passed legislation to reauthorize federal highway, highway safety, and transit programs (H.R. 3550 and S. 1072). Conferees failed to reach an agreement on final reauthorization legislation before adjournment of the 108th Congress. Early in the 109th Congress, legislation was introduced with essentially the same policy provisions as those proposed in the 108th Congress. The House passed its bill (H.R. 3), the Transportation Equity Act: A Legacy for Users (TEA-LU), on March 10, 2005. On May 17, 2005, the Senate passed its amended version of H.R. 3 (previously S. 732), the Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2005 (SAFETEA). The bills now go to conference.

During the reauthorization process, certain environmental issues have garnered significant attention from both Members of Congress and interested stakeholders (e.g., state transportation agencies, transportation construction organizations, and environmental groups). This attention is 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.

Generally, environmental provisions in the proposed legislation would to do one of the following: *authorize funding* to eliminate, control, mitigate, or minimize regulated environmental impacts associated with surface transportation programs or projects; or *specify procedures* required to be undertaken to comply with certain environmental requirements. In particular, both bills include provisions that would change the procedures the Department of Transportation (DOT) would be required to follow to comply with the Clean Air Act (42 U.S.C. § 7401 et seq.) and the National Environmental Policy Act (NEPA, 42 U.S.C. § 4321 et seq.).

Legislation currently under consideration would reauthorize surface transportation programs through FY2009. Legislation authorizing surface transportation programs for FY1998-FY2003, the Transportation Equity Act for the 21st Century (TEA-21, P.L. 105-178), expired on September 30, 2003. In accordance with a series of extension bills, all existing surface transportation programs continue to operate according to provisions of TEA-21 while Congress considers reauthorization proposals. The most recent extension, the Surface Transportation Extension Act of 2005 (H.R. 2566), extended funding for surface transportation programs until June 30, 2005. This report will be updated.

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Introduction

This report discusses legislative provisions regarding environmental issues in House and Senate bills reauthorizing surface transportation programs through FY2009. These programs involve federal highway, highway safety, and transit programs undertaken by the U.S. Department of Transportation's (DOT's) Federal Highway Administration (FHWA) and Federal Transit Administration (FTA). The House passed its bill (H.R. 3), the Transportation Equity Act: A Legacy for Users (TEA-LU), on March 10, 2005. On May 17, 2005, the Senate passed its amended version of H.R. 3 (previously approved by the Senate Environment and Public Works Committee as S. 732), the Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2005 (SAFETEA).[1]

During the reauthorization process, certain environmental issues have garnered significant attention from both Members of Congress and interested stakeholders (e.g., state transportation agencies, transportation construction organizations, and environmental groups). This attention is 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.

Both the House and Senate bills include many provisions regarding the environment. Generally, the provisions propose to do one of the following: *authorize funding* to eliminate, control, mitigate, or minimize regulated environmental impacts associated with a surface transportation program or project; or *specify procedures* required to be undertaken to comply with certain environmental requirements. In particular, both bills include provisions that would change the procedures DOT would be required to follow to comply with the Clean Air Act and the National Environmental Policy Act (NEPA).

Authorization legislation for FY1998-FY2003, the Transportation Equity Act for the 21st Century (TEA-21, P.L. 105-178), expired on September 30, 2003. In accordance with a series of extension bills, all existing surface transportation programs continue to operate according to provisions of TEA-21 while Congress

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[1] With few exceptions, including the bill titles, provisions in H.R. 3 and S. 732 are identical to those in transportation reauthorization legislation passed by the House (H.R. 3550) and the Senate (S. 1072) during the 108th Congress. The most significant difference is in total funding levels. For information about funding issues, see CRS report IB10138, *Surface Transportation: Reauthorization of TEA-21*, by John W. Fischer.

considers reauthorization proposals. The most recent extension, the Surface Transportation Extension Act of 2005 (H.R. 2566), extends funding for surface transportation programs through June 30, 2005.

This report focuses on provisions of H.R. 3 (as passed by either the House or the Senate) concerning environmental requirements that may affect federal funding or delivery of surface transportation programs or projects. Specifically, this report addresses proposed legislative provisions related to compliance with the Clean Air Act and NEPA. Also included is an overview of selected environmental provisions and issues that have gained attention from environmental and transportation stakeholders.

Issues 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 of nitrogen oxides (NOx) and volatile organic compounds (VOCs), both of which are emitted from vehicles in the presence of sunlight. Soot (particulate matter or PM) can be generated from a variety of sources including the combustion of petroleum. 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 Clean Air Act directs the Environmental Protection Agency (EPA) to regulate emissions of air pollutants. Of relevance to transportation is EPA's authority to establish emission standards, based on certain health and environmental criteria, for ozone, carbon monoxide (CO), NOx, and PM.[2] 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."[3] A "maintenance" area is one that was previously in nonattainment, but is currently attaining the NAAQS subject to a maintenance plan.[4]

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[2] 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. Transportation-related sources are not significant sources of either of these pollutants.

[3] 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 June 8, 2005.

[4] 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*.

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 ($PM_{2.5}$) go into effect this year. In April 2004, part or all of 474 counties were designated as in nonattainment for the new ozone standard. In January 2005, EPA announced that part or all of 225 counties were in nonattainment for $PM_{2.5}$.[5]

The Clean Air Act requires states to develop a State Implementation Plan (SIP) to demonstrate how they will implement, maintain, and enforce the NAAQS.[6] 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, or possibly the level of those funds, may depend upon the degree of nonattainment in a given area.[7]

Conformity with Transportation Planning

State and metropolitan transportation planners are required under the Clean Air Act to ensure that long-range transportation plans and short-range Transportation Improvement Programs (TIPs) conform with emission budgets 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.[8] 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.

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[5] 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*.

[6] 42 U.S.C. § 7410.

[7] Such areas are classified according to the extent to which pollution levels exceed the standards; designations include marginal, moderate, serious, severe, and extreme.

[8] 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 June 8, 2005.

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 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.[9]

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."[10] 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.[11]

The CMAQ Program

In the year following the Clean Air Act Amendments of 1990, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)[12] 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

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[9] 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?*

[10] 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*.

[11] 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.

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

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 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 are guaranteed at least 0.5 percent 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 funds for projects and programs intended to reduce PM_{10}. TEA-21 did not, however, change the apportionment formula. 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 carbon monoxide, ozone precursor emissions, or PM_{10}.[13] 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.[14]

According to FHWA, the most effective CMAQ-funded projects tend to be large in scope and to 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,

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[13] 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 June 8, 2005.

[14] Ibid.

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.

Legislative Proposals Regarding Air Issues

As provisions in the transportation reauthorization legislation were debated, several air quality-related issues were addressed by both Members of Congress and interested stakeholders. This section discusses and compares general categories of provisions in the House and/or Senate bills that relate, either directly or indirectly, to attainment of the NAAQS.

Proposed Changes to Conformity Demonstration Requirements. Both the House and Senate bills propose to amend Section 176 of the Clean Air Act regarding how and when conformity demonstrations are made. Two issues of particular concern to some Members of Congress have been (1) the differences between the SIP, TIP, and long-range transportation planning cycles; and (2) the absence of exemptions for certain types of projects, including those that could improve air quality. A summary of legislative provisions regarding conformity is provided in **Table 1**.

Table 1. Legislative Provisions Regarding Conformity Proposed in the Senate and House Bills

Proposal	Senate	House
Change in frequency of conformity determinations for long-range transportation plans and programs	Currently, conformity determinations for long-range transportation plans, metropolitan TIPs, and statewide TIPs must be completed every three years, two years, and three years, respectively. The Senate bill would require each of these planning documents to be updated every four years in nonattainment areas and five years in attainment and maintenance areas. The minimum frequency within which transportation conformity must be demonstrated would be every four years. Conformity determinations must be made if triggered by SIP actions or may be made if an MPO chooses to update the plan or TIP more frequently. [§ 1615(a)]	Allows conformity determinations for transportation plans and programs to be determined every four years in nonattainment areas. [§ 1824(b)]
Change in conformity horizon for long-term transportation plans	Reduces from 20 years the current planning horizon over which conformity must be demonstrated. The conformity horizons for transportation plans would extend for the longest of: the first 10 years of the plan; the latest year in the SIP's motor vehicle emissions budget; or the year after	Continues the requirement that conformity be demonstrated through the last year of the transportation plan except in areas where the metropolitan planning organization (MPO) and

Proposal	Senate	House
	completion of a regionally significant project. [§ 1615(b)]	air pollution control agency agree to reduce the horizon. In such cases, the conformity finding may be based on the latest of: the 10th year of a plan; the attainment date of the SIP; or the year after the completion date of a regionally significant project, if approval is required before subsequent conformity determination. [§ 1824(c)]
New conformity determination requirements	Requires a new conformity determination for transportation plans or programs within two years of EPA's adequacy finding or approval of a new motor vehicle emissions budget. [§ 1615(b)]	Similar to provisions in Senate bill. [§ 1824(a)]
Change in definition of a "transportation project"	Redefines a "transportation project," for which a conformity determination would be required to include only regionally significant projects or a project that makes a significant revision to an existing project. [§ 1615(b)]	No comparable provision.
Transition to new air quality standards for ozone and $PM_{2.5}$	Allows areas that have not been in nonattainment before, and not been required to demonstrate transportation conformity before, to use an emissions budget in a SIP for the prior standard for the same pollutant, if one is available. [§ 1616]	No comparable provision.
Waiver of conformity determination	Allows transportation control measures to be substituted or added to a SIP without a new conformity determination, if the substitute measures achieve equivalent or greater emissions reductions. [§ 1617]	Similar to provisions in Senate bill. [§ 6001]
Defining a conformity lapse	No comparable provision.	Allows 12-month grace period after a conformity lapse. [§ 1824(e)]

Source: Table prepared by the Congressional Research Service (CRS) based on an analysis of provisions of House- and Senate-passed versions of H.R. 3.

CMAQ Funding Authorization. Both the House and Senate bills would retain the basic structure of the CMAQ program specified under TEA-21 and increase its funding overall. The Senate bill would authorize a total of $10.8 billion (§ 1101(5)) for FY2005-FY2009, and the House a total of $9.5 billion (§ 1101(a)(6)) for FY2004-FY2009.

Provisions in both bills would expand eligibility for projects funded under the CMAQ program. Each bill specifies funding eligibility in one of two ways. First, 23 U.S.C. 149(b) would be amended to add new classes of projects to the CMAQ program. Second, clarification would be provided regarding CMAQ funding eligibility for certain projects for which there has been some confusion among the regulated community. Following is a summary of proposed projects in both groups:

- Transportation Systems Management and Operations — Both the House and Senate bills would expand the scope of CMAQ funding available for transportation systems management and operations. The House bill includes a list of eligible activities, such as arterial, freeway, work zone, and emergency management; electronic toll collection; automated enforcement; traffic operations measures to improve capacity; and traffic signal coordination. [Senate bill § 1701; House bill § 1202]
- Advanced Truck Stop Electrification Systems — The House bill specify that CMAQ funds could be used for systems that could help reduce emissions from heavy-duty transport vehicles that are frequently left idling overnight or for extended periods. Specifically, funds could be made available for advanced truck stop electrification systems that would provide electrical power for heating, air conditioning, electronic, and communications equipment onboard the vehicle. No similar provision is included in the Senate bill. However, confusion regarding current eligibility for funding such projects is discussed in the Senate Report of the Committee on Environment and Public Works (109-53). In the report, the Committee states that such systems qualify for CMAQ funding under current law, and directs DOT and EPA to issue guidance to all appropriate federal, state, and local agencies regarding this issue. [Senate Report 109-53, discussion of § 1612; House bill § 1828]
- Bicycle Transportation and Pedestrian Walkways — The Senate bill would allow the use of Surface Transportation Program (STP) and CMAQ funds for non-construction pedestrian and bicycle safety projects. The bill would also specifically set aside $446,541 in annual funding for pedestrian and bicycle safety grants. [§ 1607]
- Purchase of Alternative Fuels — The Senate bill would make eligible for CMAQ funding projects or programs for the purchase of alternative fuel or biodiesel. [§ 1612(a)]
- Diesel retrofit — The Senate bill would make eligible for CMAQ funding diesel retrofit technologies. [§ 1612(a)]
- Emergency Communication Equipment — The Senate bill would make eligible for CMAQ funding projects or programs involving the purchase of "integrated, interoperable emergency communications equipment." [§ 1612(a)]

The Senate bill also proposes to change the way the CMAQ program would be implemented through provisions that would:

- Expand the CMAQ apportionment formula to include areas in nonattainment for the new $PM_{2.5}$ and 8-hour ozone standards. [§ 1611]
- Clarify that CMAQ-type projects are eligible for CMAQ funds in states with no nonattainment or maintenance areas. [§ 1612(b)]
- Require states to ensure that subrecipients of CMAQ funds have emission reduction strategies for their fleets used in construction projects located in nonattainment or maintenance areas when the projects are funded with highway funds. [§ 1612(c)]
- Direct the Secretary of DOT to encourage states and MPOs to consult with state and local air quality agencies in nonattainment and maintenance areas on estimated emission reductions from proposed CMAQ programs and projects. [§ 1613]
- Direct the Secretary of 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. No direct funding is provided for the evaluation. [§ 1614]

Unique to the House bill is a provision that would establish a motor vehicle congestion relief program (§ 1201) to be funded under existing federal highway programs, including CMAQ.[15] The program would fund state projects that focus on relieving motor vehicle traffic congestion in urbanized areas with populations greater than 200,000. Congestion relief activities for which funding could be authorized include:

- The construction of additional lanes, improved interchanges, or improved access to major terminals, the construction of parallel roads, or truck-only lanes;
- Improvements to systemwide reliability through activities such as incident management programs, traffic monitoring and surveillance, and traveler information initiatives; and
- Activities that could maximize the use of existing lanes through such means as reversible lanes, coordination of traffic signals, or lane management strategies.

Use of HOV Lanes for Hybrid Vehicles. Because of their energy and environmental benefits, some states have extended to drivers of hybrid vehicles an exception from high occupancy vehicle (HOV) lane requirements. Under TEA-21, states were given the authority to grant HOV exemptions to "Inherently Low Emission Vehicles" (ILEVs). The ILEV standard requires that a vehicle have no evaporative emissions, a standard that is not met by any current hybrid. However, because of the reduced emissions and improved fuel economy of hybrid vehicles,

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[15] The program could also be funded from set-asides under the Surface Transportation Program, National Highway System, and Interstate Maintenance programs.

there is congressional interest in explicitly granting states the right to exempt them from HOV lane requirements.[16]

Both the House (§ 1208) and Senate (§ 1606) bills would continue and expand upon HOV lane exceptions established under TEA-21. Both bills include provisions that would:

- Allow exceptions to HOV requirements for motorcycles, ILEVs, "low-emission and energy-efficient" vehicles (the definition of which may include hybrid vehicles), public transportation vehicles, and other vehicles if the operator pays a toll;
- Require DOT or EPA to establish a process for identifying and certifying vehicles that meet the HOV exceptions; and
- Provide for the discontinuation of these exceptions if the operation of HOV lanes becomes seriously degraded as a result of lane exceptions.

Clean Fuels Formula Grant Program. TEA-21 established a clean fuels formula grant program to assist transit operators in the purchase of low-emission buses and related equipment, construction of alternative-fuel fueling facilities, modification of garage facilities to accommodate clean-fuel vehicles, and utilization of biodiesel fuel.[17] Projects in the grants program were to be funded under the Mass Transit Account of the Highway Trust Fund and with general U.S. Treasury revenues. Total funding set aside under TEA-21 for this grant program was $1 billion. Funds were to be apportioned to recipients in urbanized areas designated as nonattainment or maintenance areas for ozone or carbon monoxide. However, during the appropriations process, Congress subsequently redirected these funds to a more general fund for bus purchases not restricted to fuel type. While this grant program has not been implemented, transit agencies have purchased clean fuel buses at their discretion.

Section 3009 of TEA-LU would amend the grant program to change the definition of a "clean fuel bus" and how funds may be apportioned. The program would provide grants to urban areas on a formula basis to purchase clean fuel buses. The formula is based on the size of the bus fleet weighed against the severity of nonattainment within urbanized areas above certain population levels. TEA-LU (§ 3034) would authorize $75 million for FY2004 and $100 million for each of FY2005 through FY2009 to carry out this program. The Senate bill does not specifically fund the grant program. However, there are no provisions in the Senate bill that would restrict a transit agency from continuing its current practice of using funds from other transit programs to purchase such buses.

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

[17] 42 U.S.C. § 5308.

Issues Regarding Environmental Reviews

Before final design, property acquisition, or construction on a highway or transit project can proceed, the FHWA and FTA must comply with all applicable environmental review requirements, including those of the National Environmental Policy Act of 1969 (NEPA).[18] NEPA requires all federal agencies to consider the environmental impacts of proposed federal actions. To ensure that environmental impacts are considered before final decisions are made, NEPA requires the preparation of an environmental impact statement (EIS) for any federally funded action that significantly affects the quality of the human environment. 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 assessment that a project's impacts will be significant, an EIS must be prepared. Projects that do not individually or cumulatively have a significant social, economic, or environmental effect, and which DOT has determined from past experience have no significant impact, are processed as categorical exclusions.

In addition to meeting NEPA requirements, any given transportation project may require compliance with a wide variety of legal requirements, enforceable by multiple agencies. For example, impacts of a highway project may trigger compliance with elements of the Clean Air Act, the Endangered Species Act of 1973 (16 U.S.C. 1536), the National Historic Preservation Act (16 U.S.C. 470), or the Clean Water Act (33 U.S.C. 1251). FHWA regulations require that compliance with *all* applicable environmental laws, executive orders, and other legal requirements be documented within the appropriate NEPA documentation (a concept referred to as the "NEPA umbrella").[19]

Legislative Proposals Regarding Environmental Reviews

Some Members of Congress have expressed concerns that the environmental review process, particularly for large, complex surface transportation projects, can be inefficient, leading to delays in completion of those projects. To address this concern, TEA-21 included "Environmental Streamlining" provisions. Some Members of Congress have expressed the need for further legislation to expedite the environmental review process required of highway and transit projects. In response to that need, both the Senate and House bills would repeal TEA-21's streamlining provisions and institute new procedures intended to expedite the environmental review process.

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[18] An "environmental review" refers to a requirement to show evidence of formal consideration, evaluation, or analysis of the impacts of a proposed federal action. Most often, the use of the term is in reference to the process of complying with NEPA requirements. However, depending upon the project at issue, an environmental review may refer to the process of complying with provisions of any applicable environmental requirement.

[19] For more detailed information about the NEPA process, see CRS Report RL32024, *Background on NEPA Implementation for Highway Projects: Streamlining the Process* and CRS Report RL32032, *Streamlining Environmental Reviews of Highway and Transit Projects: Analysis of TEA-LU (H.R. 3) and SAFETEA (S. 732).*

Streamlining Environmental Reviews. Section 1511 of the Senate bill would establish a new "transportation project development process" that could be implemented at the request of the project sponsor.[20] The new process and related provisions in the Senate bill, applicable to highway and transit projects, include the following:

- A codification of DOT's traditional role as the lead federal agency responsible for completion of the environmental review process.
- A statutory delineation of the roles and responsibilities of the lead agency and cooperating agencies.
- A requirement to establish a "coordination plan" to coordinate agency and public participation and to develop a schedule for completion of the environmental review process.
- Provisions for the collaborative development of the project's statement of purpose and need and project alternatives as required under NEPA or any other applicable statute.
- A requirement to follow specified dispute resolution procedures in the event a cooperating agency identifies "major issues of concern" regarding the potential environmental or socioeconomic impacts of a project.

Section 1512 of the Senate bill would authorize states to assume responsibility for determining whether certain designated activities may be included within the class of actions currently identified in FHWA regulations as categorical exclusions. The criteria for making such a determination would be established by the Secretary of DOT and apply only to projects designated by the Secretary. Such authority would be determined through a mutual agreement between the state and the Secretary and delineated in a memorandum of understanding.

Section 1513 of the Senate bill proposes to establish a "surface transportation project delivery pilot program" that would delegate certain additional federal environmental review responsibilities to no more than five states, including Oklahoma. Responsibility could be assumed for environmental reviews required under NEPA, or any federal law, for one or more highway projects within the state. The program would be administered in accordance with a written agreement between the participating state and the Secretary. The Secretary is directed to promulgate regulations to implement the pilot program within 270 days of enacting the law.

Unless otherwise specified, Section 1515 of the Senate bill directs the Secretary to promulgate regulations to implement each of the provisions discussed above within one year of enacting the law.

The House bill includes its provisions related to the environmental review process under Section 6002, "Efficient Environmental Reviews for Project Decisionmaking." Like the Senate bill, TEA-LU specifies certain provisions intended to reduce delays arising from the environmental review process. The House bill's

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[20] Otherwise, current regulatory requirements that specify "Environmental Impact and Related Procedures" under 23 C.F.R. 771 will apply.

"project development procedures" would be applicable to all highway projects, public transportation capital projects, and multimodal projects that require an EIS and to other projects if appropriate. Further, proposed provisions regarding the project development procedures would:

- Statutorily designate DOT as the lead federal agency and the project sponsor (if a state or local government) as the joint lead agency for the environmental review process.
- Allow the joint lead agency to prepare any supporting documents if the federal lead agency provides guidance and assistance and approved the documents.
- Require the environmental review process to be initiated by the project sponsor.
- Require the project's statement of purpose and need to be defined and the project alternatives to be determined by the lead agency after participating agencies and the public have an opportunity for involvement.
- Establish an extendable 60-day deadline on comments to a draft EIS and an extendable 30-day deadline on all other comment periods in the environmental review process.
- Establish a dispute resolution process intended to identify and resolve issues of concern that could delay completion of the environmental review process.
- Require a state participating in the environmental review process to require the participation of all appropriate state agencies.
- Allow project funds to be provided to state and federal agencies to support activities related to the environmental review process that would expedite project delivery.
- Establish a 90-day statute of limitation on claims concerning final agency actions.

TEA-LU does not specifically direct the Secretary to promulgate regulations to implement the environmental review provisions of the bill.

Revisions to "Section 4(f)" Requirements. Both the House (§ 6003) and Senate (§ 1514) bills would amend current statutory provisions related to "Section 4(f)" provisions of the Department of Transportation Act of 1966.[21] Section 4(f) requirements apply to publicly owned parks and recreation areas, and wildlife and waterfowl refuges. They also apply to public or privately owned historic sites of national, state, or local significance. Under current law, any use of such a resource for a transportation project is prohibited unless there is no prudent and feasible

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[21] 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).

alternative to do otherwise, *and* the project includes all possible planning to minimize harm to the resource.

The Senate bill would amend the current law to allow for the use of a Section 4(f) resource if it is determined that such use would result in "de minimis impacts" to that resource. The House bill includes a similar provision; however, it would apply only to the use of historic sites. TEA-LU would allow the use of a historic site if the use is determined, in accordance with provisions of the National Historic Preservation Act (16 U.S.C. 470f), to have no "adverse effect" on the site. Also, provisions in both the House (§ 6004) and Senate (§ 1604) bills would specifically exempted the Interstate System, segments of which are approaching 50 years old, from consideration as a historic site pursuant to Section 4(f).

Additional Environmental Issues

Provisions involving the implementation of the Clean Air Act and NEPA have garnered the most attention and debate during the transportation reauthorization process. However, some Members of Congress have also expressed concern regarding a variety of other environment-related issues. In particular, both the House and Senate bills include proposals that would authorize funding for projects or activities that minimize or mitigate potential environmental impacts of transportation-related activities. Each bill would also authorize funding for research that may ultimately prove beneficial to the environment.

Expansion of Environmental Projects Eligible for Funding

A variety of highway programs, including the Surface Transportation Program (STP) and the National Highway System (NHS) program, are funded through the highway trust fund. 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.

Both the House and Senate bills propose to set aside STP and/or NHS funds for specific projects. However, the Senate bill would authorize the use of STP and/or NHS funds for a variety of programs or projects intended to minimize or mitigate environmental impacts related to surface transportation projects. Following is a list of projects or programs for which STP and/or NHS program funds would be required to be spent or for which such funds may have been eligible under the Senate bill:

- Habitat, Streams, and Wetlands Project Mitigation Fund — Allow a state to deposit into a habitat, streams, and wetlands mitigation fund part of the funds apportioned to it under the STP and NHS programs. [§ 1505]
- Environmental Restoration and Pollution Abatement — Expand eligibility under both the STP and NHS programs to fund pollution abatement and environmental restoration projects. To minimize or

mitigate the impacts of any transportation project, the Senate bill would allow environmental restoration and pollution abatement to be carried out to address water pollution or environmental degradation caused wholly or partially by a transportation facility. This could include retrofitting and construction of storm water treatment systems to meet federal and state requirements under the Federal Water Pollution Control Act (33 U.S.C. 1341, 1342). [§ 1601]

- Control of Invasive Species — Expand eligibility under both the STP and NHS programs for the control of invasive species and the establishment of native plant species. Activities funded under the program could include participation in statewide inventories of invasive plant species and desirable plant species; regional native plant habitat conservation and mitigation; native re-vegetation; and elimination of invasive species to create fuel breaks for the prevention and control of wildfires. [§ 1601]
- Highway Stormwater Discharge Mitigation Program — Stormwater mitigation is currently eligible for STP funding as a Transportation Enhancement project. The Senate bill would require 2 percent of a state's STP apportionment to be available for mitigation projects to improve the quality of stormwater discharge from federal-aid highways. Funding could be provided for projects that reduce flooding; recharge groundwater; promote natural filters; minimize stream bank erosion; and improve water quality. The Secretary of DOT would be required to issue guidance to assist states in carrying out the program. [§1620]

Funding for Surface Transportation Research Projects

Both the House and Senate bills propose to authorize funding for transportation research projects, related to the environment, out of the highway trust fund.

Advanced Vehicle Technologies Research. Authorized under TEA-21, the Advanced Vehicle Technologies Program (AVP)[22] was established to support the production of cleaner, more energy efficient vehicles (e.g., electric or hybrid-electric vehicles). The program is managed by DOT in partnership with other federal agencies (e.g., Department of Defense, Department of Energy), private companies, research institutions, and state and local governments. Of $250 million authorized for this program under TEA-21, Congress appropriated a total of $10 million.

The Senate bill does not specifically authorize funding for the AVP program. The House bill replaces the existing program with an "Advanced Heavy-Duty Vehicle Technologies Research Program" (§ 5401). Under this section, the Secretary of DOT is directed to conduct research, development, demonstration, and testing to integrate emerging advanced heavy-duty vehicle technologies in order to "provide seamless, safe, secure, and efficient transportation and to benefit the environment." The House bill would authorize the appropriation of $1 million for FY2004 and $3

[22] 49 U.S.C. § 5506.

million for each of FY 2005 through FY20009 from the Highway Trust Fund for the program. For any given project, at least 50 percent of the funding would be required to be provided by non-federal sources.

Surface Transportation Environment and Planning Cooperative Research Program. Established under TEA-21, the Secretary of DOT was required to establish a surface transportation-environment cooperative research program. Included among the program's research priorities is a requirement 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.

Both the House (§ 5203) and Senate (§ 2101) bills include provisions that would reauthorize funding for this program. The House bill would set aside $5 million for FY2004 and $15 million per year for FY2005-FY2009 from the Surface Transportation Research funds. The House bill would also allow additional funding to be sought from public and private sources. The Senate bill (§ 2001(a)(1)(B)) would set aside a total of $18.7 million per year for FY2005 through FY2009 from Surface Transportation Research funds. The Senate bill would allow research to address planning and evaluation models, factors contributing to transportation demand, and transportation performance indicators to meet environmental requirements and facilitate analysis of potential alternatives.