



U.S. Department
of Transportation
**Federal Highway
Administration**

A Guide To Federal-Aid Programs And Projects



Federal Highway Administration

Office of Stewardship, Oversight, and Management

Introduction

Federal-Aid highway funds are authorized by Congress to assist the States in providing for construction, reconstruction, and improvement of highways and bridges on eligible Federal-Aid highway routes and for other special purpose programs and projects. Through the Federal Lands Highway Program, funding is provided for improving access to and within National Forests, National Parks, Indian Lands and other public lands.

The principal statutes establishing the Federal-Aid Highway Program are found in Title 23, United States Code (23 U.S.C.). Regulatory requirements are generally found in Title 23, Highways, of the Code of Federal Regulations (23 CFR).

This guide provides basic information about the Federal-Aid programs, projects, and other program characteristics. Much of the information provided in this guide was included in the FHWA's 1999 edition of the same publication. This publication updates information from the past document and includes information resulting from the latest multi-year Federal-Aid authorizing legislative act, Fixing America's Surface Transportation Act (FAST Act) (P.L.114-94). As new or updated information becomes available, the electronic version of this guide will be updated.

Purpose of Guide

The guide is intended to provide basic information for FHWA and State personnel involved in the administration of the Federal-Aid Highway Program. It is not intended to be an eligibility guide, but contains basic descriptions and historical information on active and inactive programs.

This guide should be of interest to FHWA, State highway agencies, local governments, and private sector personnel interested in a basic understanding of Federal-Aid programs, projects, or other program characteristics. In addition to basic information, sources of additional information are provided.

How to use this Guide

The guide contains information on Federal-Aid highway programs, projects, and other program characteristics. This includes fiscal information, statutory and regulatory references, general eligibility and background information, and program office contacts. The guide contains two parts:

Part I - Active programs and projects

This part covers programs, projects, and activities authorized or continued by the FAST Act, as well as those authorized in previous legislation that remain active.

Part II - Inactive programs and projects

This part covers inactive programs, projects, and activities that are no longer active, but which have historic interest, and/or were the basis for current programs and projects.

This guide is available electronically at [A Guide to Federal-Aid Programs and Projects](#).

A Guide To Federal-Aid Programs And Projects

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Active Programs And Projects

- 100% Federal Share For Certain Safety Projects
- Advance Construction
- Alaska Highway (Shakwak)
- Appalachian Development Highway Program
- Bicycle Transportation And Pedestrian Walkways
- Bond Issue Projects
- BUILD (Better Utilizing Investments to Leverage Development) Discretionary Grants
- Congestion Mitigation And Air Quality Improvement Program (CMAQ)
- Control of Outdoor Advertising
- Coordinated Border Infrastructure Program
- Credit For Toll Expenditures
- Defense Access Roads
- Delta Region Transportation Development Program
- Demonstration, Priority, and Special Interest Projects Designated by Congress
- Denali Access System Program
- Disadvantaged Business Enterprises
- Disadvantaged Business Enterprise Supportive Services (DBE/SS)
- Earmark Repurposing
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- Express Lanes Demonstration Program
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- Ferry Boat Discretionary (FBD) Program
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- Future Strategic Highway Research
- High Priority Projects (HPPs) Program
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- Highway Bridge Program (HBP)
- Highway Infrastructure Program
- Highway Infrastructure Program - Coronavirus Response and Relief Supp Approps Act (HIP-CRRSAA)
- Highway Safety Improvement Program (HSIP)
- Highway Use Tax Evasion Projects
- Innovative Bridge Research and Deployment (IBRD) Program
- Intelligent Transportation Systems (ITS) Integration
- Intelligent Transportation Systems (ITS) Research And Development
- Interstate Construction
- Interstate Maintenance (IM)
- Interstate Maintenance Discretionary (IMD)
- Interstate System Construction Toll Pilot Program
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- Local Technical Assistance Program (LTAP)
- Metropolitan Planning Funds
- Nationally Significant Freight and Highway Projects (NSFHP) Program
- National Corridor Infrastructure Improvement Program (NCIIP)
- National Highway Institute
- National Highway Freight Program (NHFP)
- National Highway Performance Program (NHPP)
- National Highway System (NHS)
- National Scenic Byways Program
- On-The-Job Training
- On-The-Job Training Supportive Services
- Projects Of National And Regional Significance (PNRS)
- Puerto Rico Highway Program (PRHP)

- Railway-Highway Crossing Hazard Elimination
- Real-Time System Management Information Program
- Recreational Trails Program (RTP)
- Safe Routes To School (SRTS)
- Safety Incentives to Prevent Operation Of Motor Vehicles By Intoxicated Persons
- Sliding Scale Rates
- State Infrastructure Banks (SIB) Program
- State Planning And Research (SPR)
- Surface Transportation Block Grant Program (STBG)
- Territorial Highway Program (THP)
- Transportation Alternatives (TA) Set-Aside Program
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- Tribal Transportation Program (TTP)

Inactive Programs And Projects

- 90 Percent Of Payment Adjustments
- Access Highways To Public Recreation Areas On Certain Lakes
- Additional Allocation - Wisconsin
- Alaskan Assistance
- American Recovery and Reinvestment Act of 2009 (ARRA)
- Baltimore-Washington Parkway
- Bicycle Grants
- Bikeway Demonstration
- Bridge Discretionary Program
- Bridges On Federal Dams
- Bridges On Indian Reservation Roads (IRR)
- Bridge Replacement (Special)
- Combined Road Plan
- Commercial Driver's License Updated
- Consolidated Primary
- Donor State Bonus
- Elimination Of Roadside Obstacles
- Energy Impacted Roads
- Equity Bonus (Formerly Minimum Guarantee)
- Excess Funds And Funds For Inactive Projects
- Freight Intermodal Distribution Pilot Grant Program
- Funding Restoration
- Great River Road
- Hazard Elimination
- High-Hazard Locations/Elimination Of Roadside Obstacles
- High-Hazard Locations
- Highways Crossing Federal Projects
- Highways for LIFE
- Hold Harmless
- Idling Reduction Facilities in Interstate Rights-Of-Way
- Indian Reservation Roads (IRR)
- Indian Reservation Roads Bridge Program (IRRBP)
- Innovative Technologies (Federal Share Increase)
- International Highway Transportation Outreach Program
- Interstate 4R
- Interstate Discretionary
- Interstate Gap Closing
- Interstate 1/2 Percent Minimum Apportionment
- Interstate Reimbursement
- Interstate Substitution
- Junkyard Control
- Long-Term Monitoring (LTM)
- Minimum Allocation - 90 Percent

- National Corridor Planning And Development Program
- National High-Speed Ground Transportation Technology Demonstration Program
- National Highway System High Priority Corridor Feasibility Study Discretionary Program
- National Historic Covered Bridge Preservation
- National Magnetic Levitation (MAGLEV) Prototype Development Program
- National Ridesharing Demonstration
- National Ridesharing Discretionary Program
- Non-Urbanized Public Transportation
- Off-System Roads
- Operation Lifesaver
- Park Roads and Parkways Program
- Pavement Marking Demonstration Program
- Priority Primary Discretionary
- Priority Primary
- Public Lands Highways - Discretionary and Forest Highways
- Rail Crossings Demonstration (Northeast Corridor)
- Rail-Highway Crossings 203 Program
- Rail-Highway Crossings Off-System
- Railway-Highway Crossing Hazard Elimination in High Speed Rail Corridors
- Railroad-Highway Crossings Demonstration Program (19 Cities)
- Refuge Roads Program
- Research And Development Administrative Funds
- Right-Of-Way Revolving Fund
- Rural Highway Public Transportation Demonstration
- Rural Primary
- Rural Secondary
- Safer Off-System (SOS) Roads Updated
- Safer Roads Demonstration
- Safety Belts And Motorcycle Helmets
- Safety Incentive Grants for Use Of Seat Belts
- Secondary
- Seismic Research Program
- Special Urban High Density
- State Flexibility
- State Highway Safety Data Improvement Grants
- State Infrastructure Banks (SIB) Pilot Program (1995)
- State Infrastructure Banks (SIB) Pilot Program (1998)
- STP Set-Aside For Safety Improvements
- STP Set Aside For Transportation Enhancements
- Surface Transportation Environment and Planning Cooperative Research Program
- Surface Transportation Research, Development, And Deployment
- Surface Transportation Research Strategic Planning
- Temporary Matching Fund Waiver (FYs 1992-1993)
- Temporary Matching Fund Waiver (FYs 1983-1984)
- Timber Bridge Research and Demonstration
- Traffic Control Signalization Demonstration
- Traffic Operations Program To Increase Capacity And Safety (TOPICS)
- Transition Quarter
- Transportation Assistance For Olympic Cities
- Transportation, Community, and System Preservation Program
- Transportation Systems Management Demonstration
- Truck Parking Facilities
- Urban Extensions
- Urban System
- Value Pricing Pilot Program
- Woodrow Wilson Bridge

Active Programs And Projects

Congestion Mitigation And Air Quality Improvement Program (CMAQ) Updated March 31, 2021

STATUS: ACTIVE

PROGRAM CODES:

- 3200 - CMAQ
- 32A0 - CMAQ 100% Safety
- 3AZ0 - CMAQ-FTA
- 3610 - Congestion Relief Project
- 3BD0 - Congestion Relief Demo - FTA
- Q400 - CMAQ TEA-21
- QC10 - CMAQ FTA
- Q420 - CMAQ 100% Safety
- H400 - CMAQ STEA03
- HV20 - Highways for Life - CMAQ 10% Limit
- L400 - SAFETEA-LU CMAQ
- LV20 - Highways for Life - CMAQ 10% Limit
- L40E - CMAQ SAFETEA-LU Ext.
- L40R - CMAQ SAFETEA-LU Restored (P.L. 111-147 Sec. 413)
- LV2E - Highways for Life - CMAQ 10% Limit - SAFETEA-LU Ext.
- M400 - CMAQ (MAP-21 Section 1101(a)(1))
- M401 - CMAQ Flexible Funding (MAP-21)
- M003 - CMAQ Projects to Reduce PM 2.5 Emissions (MAP-21)
- M40E - CMAQ (MAP-21 Extension)
- M4E1 - CMAQ Flexible Funding (MAP-21 Extension)
- M0E3 - CMAQ Projects to Reduce PM 2.5 Emissions (MAP-21 Extension)
- Z400 - CMAQ (FAST Act)
- Z401 - CMAQ Flexible Funding (FAST Act)
- Z003 - CMAQ Projects to Reduce PM 2.5 Emissions (FAST Act)
- Z40E - CMAQ (FAST Act Extension; P. L. 116-159)
- Z4E1 - CMAQ Flexible Funding (FAST Act Extension; P. L. 116-159)
- Z0E3 - CMAQ Projects to Reduce PM 2.5 Emissions (FAST Act Extension; P. L. 116-159)

FEDERAL SHARE: The Federal share for CMAQ funds is governed by 23 U.S.C. 120. It is generally 80 percent, subject to the upward sliding scale adjustment for States containing public lands. Certain safety projects that include an air quality or congestion relief component, e.g. carpool/vanpool projects, as provided in 23 USC 120(c) may have a Federal share of 100 percent, but this provision is limited to 10 percent of the total funds apportioned to a State under 23 U.S.C. 104. The 100 percent Federal share provision (from P.L. 110-140) covered only 2008 and 2009 and was not extended by MAP-21.

PERIOD AVAILABLE: Funds are available for obligation for a period of three years after the last day of the fiscal year for which the funds are authorized.

FUND: Highway account of the Highway Trust Fund

FUND DISTRIBUTION METHOD: Apportionment

AUTHORITY: Contract

SUBJECT TO OBLIGATION LIMITATION: Yes

STATUTORY REFERENCE: 23 U.S.C. 149

CFR REFERENCE: None

ELIGIBILITY: Generally, projects eligible under the CMAQ program prior to enactment of MAP-21 remain eligible with the new authorization. All CMAQ projects must demonstrate the three primary elements of eligibility: transportation identity, emissions reduction, and location in or benefitting a nonattainment or maintenance area. While project eligibilities are continued, there is some modification with new language placing considerable emphasis on select project types including electric and natural gas vehicle infrastructure and diesel retrofits. As in past authorizations of the program, projects must be included in a Metropolitan Planning Organization (MPO) transportation plan and transportation improvement program (TIP), or the current Statewide TIP in areas that are not part of an MPO. The MPO plans and programs must also have a transportation conformity determination in place, where applicable. In addition, CMAQ investments must comply with the appropriate Federal cost principles, such as 2 CFR 225, the guidelines for State, local, and tribal governments.

Eligible Activities Include:

1. Acquisition of diesel retrofits, including tailpipe emissions control devices, and the provision of diesel-related outreach activities.
2. Intermodal equipment and facility projects that target diesel freight emissions through direct exhaust control from vehicles or indirect emissions reductions through improvements in freight network logistics.
3. Alternative fuel projects including participation in vehicle acquisitions, engine conversions, and refueling facilities.
4. Establishment or operation of a traffic monitoring, management, and control facility, including the installation of advanced truck stop electrification systems.
5. Projects that improve traffic flow, including efforts to provide signal systemization, construct HOV lanes, streamline intersections, add turning lanes, improve transportation systems management and operations that mitigate congestion and improve air quality, and implement ITS and other CMAQ-eligible projects, including efforts to improve incident and emergency response or improve mobility, such as through real time traffic, transit and multimodal traveler information.
6. Projects or programs that shift travel demand to nonpeak hours or other transportation modes, increase vehicle occupancy rates, or otherwise reduce demand through initiatives, such as teleworking, ridesharing, pricing, and others.
7. Transit investments, including transit vehicle acquisitions and construction of new facilities or improvements to facilities that increase transit capacity.
8. Non-recreational bicycle transportation and pedestrian improvements that provide a reduction in single-occupant vehicle travel.
9. Vehicle inspection and maintenance programs.
10. See additional eligibilities provided for under the FAST Act (listed in BACKGROUND:)

Ineligible Activities:

No funds may be used to add capacity except for HOV facilities that are available to SOV only at off-peak times.

BACKGROUND: The CMAQ program was established by the Intermodal Surface Transportation Act of 1991 (1991 ISTEA, Public Law 102-240) and was continued by the Transportation Equity Act for the 21st Century (TEA-21, Public Law 105-178) and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) under 23 U.S.C. 149.

Under 23 U.S.C. 104(b)(2)(B)(pre-MAP-21), each State was apportioned funding based on county populations residing within ozone and carbon monoxide (CO) nonattainment and maintenance areas and the severity of the areas' air quality problems. Extra weighting was given to nonattainment or maintenance areas with both ozone and CO problems.

The Energy Independence and Security Act of 2007 (EISA), Public Law 110-140 included a provision in Section 1131, to increase the Federal share for the CMAQ program (23 U.S.C. Section 120(c)(2)(preMAP-21)). In enacting the provision, Congress established an 80 percent Federal share subject to new flexibility for a State to increase the Federal share payable on a CMAQ project up to 100 percent of the cost, if funds are obligated in fiscal year 2008 or 2009, and further subject to Section 120(i), which provides that a State may increase the non-Federal share for a project subject to criteria that the Secretary may establish. Consequently, there is no absolute minimum of 80 percent Federal share. As of December 20, 2007, funds obligated under the CMAQ program (23 U.S.C. 149), could be increased up to 100 percent of the total cost, at the discretion of the State, if funds were obligated in fiscal years 2008 and 2009. This provision to increase the Federal Share payable up to 100% was extended by the enactment of the Surface Transportation Extension Acts until October 1, 2012.

Moving Ahead for Progress in the 21st Century (MAP-21) extended the CMAQ program with the eligibilities shown above, and MAP-21 Section 1105, moved the apportionment of CMAQ funds to 23 U.S.C. 104(b)(4). MAP-21's approach to distribution of formula funds is based on the amount of formula funds each State received in FY 2012. Once each State's total Federal-aid apportionment is calculated, an amount is set aside for the State's CMAQ program through a calculation based on the size of the State's FY 2009 CMAQ apportionment relative to the State's total FY 2009 apportionments; the longstanding CMAQ statutory apportionment formula was not retained by MAP-21. Amounts for State Planning and Research and the Transportation Alternatives Program are set aside from each State's CMAQ apportionment. MAP-21 requirements went into effect on October 1, 2012 and apply to all related funding obligated on or after that date, whether carryover or new funds. MAP-21 included several other provisions as outlined below:

Performance Management: The CMAQ program has new performance-based features. The Secretary will establish measures for States to use for assessing traffic congestion and on-road mobile source emissions. Each MPO serving a Transportation Management Area (TMA) with a population of more than one million and also representing a nonattainment or maintenance area is required to develop a performance plan to achieve emission and congestion reduction targets. The MPO plans must be updated biennially and each update must include a retrospective assessment of the progress made toward the air quality and traffic congestion performance targets through the last program of projects.

State Flexibility:

1. A State without a nonattainment or maintenance area may use its CMAQ funds for any CMAQ- or Surface Transportation Program (STP)-eligible project.
2. States with a nonattainment or maintenance area that received a minimum apportionment in FY 2009 may use part of their current CMAQ funds for any STP-eligible project. The amount is based on the proportion of the State's FY 2009 CMAQ apportionment that could be obligated in any area of the State for STP-eligible projects.
3. The amount that may be obligated in any area of the State for STP-eligible projects is to be adjusted if a new nonattainment area is designated, a nonattainment area re-designated as an attainment (including maintenance) area, or a standard is fully revoked in an existing nonattainment or maintenance area.

Priority for PM_{2.5} Areas: The legislation calls for a State that has PM 2.5 (fine particulate matter) nonattainment and maintenance areas to use a portion of its CMAQ funds, based on population in PM 2.5 nonattainment areas, for projects that reduce PM 2.5 in such areas. Diesel retrofits are highlighted in MAP-21 as eligible to effect such mitigation. Further information on this section will be provided in the future.

Transferability: MAP-21 changed the approach to transfer of CMAQ funds to other elements of the Federal-aid program. Transfers of CMAQ funds no longer are subject to a special statutory formula but follow the maximum 50 percent transfer guideline provided in Transferability of Federal-aid at 23 U.S.C. 126. Exercising this transfer authority could impact traffic congestion and on-road mobile source emissions, the progress of which will be reported once performance measures are established under 23 U.S.C. 150. States continue to have the ability to transfer (or "flex") CMAQ funds to FTA for award as a grant under Chapter 53 of Title 49, as they did under SAFETEA-LU [see 23 U.S.C. 104(f)].

Evaluation of Projects: The Secretary must maintain and disseminate a cumulative database describing the impacts of projects, including project name, location, sponsor, cost, and cost-effectiveness (based on reduction in congestion and emissions) to the extent already measured. The Secretary, in consultation with EPA, shall evaluate cost effectiveness of projects periodically, for use by States and MPOs in project selection.

Section 125 of the Consolidated Appropriations Act, 2014 (Public Law 113-76) (2014 Appropriations Act), modified 23 U.S.C. 149(m) to eliminate any time limitation on the use of CMAQ funds for operating assistance for certain activities.

On December 4, 2015, the President signed the Fixing America's Surface Transportation (FAST) Act into law (Pub. L. 114-94). Section 1114 of the FAST Act amended 23 U.S.C. 149. The FAST Act continues the CMAQ Program and adds the new eligibilities and exemptions described below.

The FAST Act added eligibility for verified technologies for non-road vehicles and non-road engines that are used in port-related freight operations located in ozone, PM₁₀, or PM_{2.5} nonattainment or maintenance areas funded in whole or in part under 23 U.S.C. or chapter 53 of 49 U.S.C. [23 U.S.C. 149(b)(8)(A)(ii)]

The Act also specifically makes eligible the installation of vehicle-to-infrastructure communications equipment. [23 U.S.C. 149(b)(9)]

The FAST Act continues eligibility for electric vehicle and natural gas vehicle infrastructure and adds priority for infrastructure located on the corridors designated under 23 U.S.C. 151. [23 U.S.C. 149(c)(2)]

The FAST Act amended the eligible uses of CMAQ funds set aside for PM_{2.5} nonattainment and maintenance areas. PM_{2.5} set-aside funds may be used to reduce fine particulate matter emissions in a PM_{2.5} nonattainment or maintenance area, including, 1) diesel retrofits; 2) installation of diesel emission control technology on nonroad diesel equipment or on-road diesel equipment that is operated on a highway construction projects; and 3) the most cost-effective projects to reduce emissions from port-related landside nonroad or on- road equipment that is operated within the boundaries of the area. [23 U.S.C. 149(k)(2) & (4)]

The FAST Act provided an exemption from PM_{2.5} set-aside for States with low population density: the PM_{2.5} set-aside will not apply to a nonattainment or maintenance area in a State with low population density (80 or fewer persons per square mile of land area) if: 1) the PM_{2.5} nonattainment or maintenance area does not have projects that are part of the emissions analysis of a metropolitan transportation plan or TIP; and 2) regional motor vehicle emissions are an insignificant contributor to the air quality problem for the PM_{2.5} nonattainment or maintenance area. [23 U.S.C. 149(k)(3)].

The program was continued under FAST Act extension legislation.

ADDITIONAL INFORMATION: Contact the Office of Natural and Human Environment (HEPN).