

Air Quality and Sustainable Transportation Highlights

*Prepared by the Office of Natural Environment
Federal Highway Administration (FHWA)*



U.S. Department of Transportation
Federal Highway Administration

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Announcements and Recent Events

FHWA Requests Nominations for Designation of Alternative Fuel Corridors – Round 5

The Federal Highway Administration (FHWA) is working with other Federal, State, and local officials, as well as private industry, to help plan and promote an Interstate network of stations that will fuel vehicles powered by clean and domestically produced alternative fuels, so commercial and passenger vehicles can reliably travel between cities, regions, and across the entire nation as required by Section 1413 of the Fixing America’s Surface Transportation (FAST) Act. FHWA is soliciting [nominations for Round 5 designations](#) by **COB Wednesday, February 24, 2021**. Rounds 1-4 of FHWA’s [Alternative Fuel Corridors](#) designations have included 100 nominations from State and local officials, including portions/segments of 119 Interstates and 100 US highways/State roads, within 49 States and D.C., covering approximately 145,222 miles of the National Highway System (all fuels combined).

FHWA Updates Air Quality Maps on HEPGIS

The Federal Highway Administration (FHWA) has updated air quality maps on HEPGIS to add graphical displays about where transportation conformity applies. The [HEPGIS website](#) is an interactive, web-based geographic map server that enables users to navigate, view, and print geo-spatial maps using only their web browser. For the new air quality maps, symbols are used to denote where transportation conformity applies versus where it no longer applies due to areas reaching the end of their 20-year maintenance period or due to the revocation of a national ambient air quality standard (NAAQS). Users can toggle on and off the areas for multiple NAAQS at the same time to understand how these boundaries overlay with each other and with MPO boundaries. They can also use an information button to click a point on the map and get a list of NAAQS that have transportation conformity requirements in that location. The shapefiles behind these interactive maps are also available for download. In addition to a [map summarizing all areas subject to transportation conformity](#), maps for each of the 9 NAAQS are available by clicking on the menu for “MPO & Air Quality” and selecting “Air Quality Maps.” The information contained in this mapping tool is for informational purposes only and not intended to replace the transportation conformity regulations at 40 CFR Part 93, EPA guidance, Federal Register notices, or the EPA Green Book. For more information, please contact David Kall (David.Kall@dot.gov or 202-366-6276).

FHWA Releases Research Project Report on “Evaluation of Methods for Modeling Vehicle Activity at Signalized Intersections for Air Quality Hot-Spot Analyses”

This report summarizes an evaluation undertaken to compare methods of representing vehicle activity at signalized intersections for use in project scale air quality analysis. This evaluation is intended to advance the state of the practice for emissions and dispersion analysis at signalized intersections, which will improve the accuracy of pollutant concentration estimates. The Next Generation Simulation (NGSIM) Lankershim Blvd. dataset was the basis for a detailed baseline that was compared to other methods that are more practical to implement. This final report includes information on data inputs, modeling, method comparison, results, and recommendations based on two intersections of NGSIM data in Los Angeles, CA, and covers both phases 1 and 2 of the subject project. The target audience is transportation agency technical staff undertaking project-level air quality analyses. The final report [will be posted soon](#), and a [factsheet](#) is available for downloading. For more information, please contact David Kall (David.Kall@dot.gov or 202-366-6276).

EPA Publishes MOTO Vehicle Emission Simulator (MOVES3) in a Federal Register Notice

EPA’s official release of MOVES3 was published in a [Federal Register Notice](#). It is also available on EPA’s [transportation conformity website](#). Please also note that the MOVES3 two-year conformity grace period starts January 7, 2021 and ends on January 9, 2023. MOVES3 will need to be used as the latest EPA emissions model in both regional emissions analyses and in hot-spot analyses that start after the end of the grace period for transportation conformity purposes outside of California. MOVES3 replaces the MOVES2014 series of models as EPA’s latest model for estimating air pollution emissions from cars, trucks, motorcycles, and buses, as well as many categories of nonroad equipment. The [MOVES web page](#) is the source for MOVES3 software as well as MOVES Policy Guidance, MOVES Technical Guidance, and information on MOVES training.

CDC Foundation Publishes Videos on the Health Impact in Five Years (HI-5) Initiative and Public Transportation Action Guide for Public Health Care Professionals

The Center for Disease Control (CDC) Foundation published three videos and a [Public Transportation Action Guide](#) for public health care professionals to support the CDC’s HI-5 initiative to improve population health and health equity, expansion of public transportation systems intervention. These materials connect use of public transportation systems to improved air quality, improved population health, and lower community costs for healthcare. The videos are posted in the Learn More: Public Transportation area on the right side of the [CDC Foundation website](#) and the [Public Transportation Action Guide](#) is linked under the Public Transportation Systems heading.

FHWA Updates Congestion Mitigation and Air Quality Improvement Program (CMAQ) Emission Reductions Calculator Toolkit

The Federal Highway Administration (FHWA) is continuing to develop a series of tools to provide technical support for the implementation of the CMAQ Program. This CMAQ Emission Reductions Calculator is offered as an additional resource to assist departments of transportation (DOTs), metropolitan planning organizations (MPOs), and project sponsors in the project justification process. All modules are available on the FHWA [CMAQ Emissions Calculator Toolkit](#) webpage. For more information, please contact Mark Glaze (Mark.Glaze@dot.gov or 202-366-4053).

Most recently, the *Managed Lane Facilities and Conversions* tool was updated, and FHWA hosted a webinar to demonstrate the *Alternative Fuels and Vehicles* and the *Dust Mitigation* tools. Recordings of these and other training webinars are available via the [CMAQ toolkit website](#).

Meetings, Conferences, and Workshops

American Association of State Highway Transportation Officials (AASHTO) CMAQ Task Force

The AASHTO CMAQ Task Force is holding monthly teleconferences, open to all AASHTO members. The task force is a forum for communications, guidance, and resources focused on the CMAQ program, providing recommendations and support to State DOTs. The CMAQ task force meetings are a venue to engage fellow AASHTO members, and FHWA provides regular updates at each monthly meeting. For further information, please contact the AASHTO Committee on Planning (committeeonplanning@ashto.org) or visit [the task force website](#).

TRB Workshop on FHWA's Resilience and Durability to Extreme Weather Pilot Projects

On January 22, 2021 from 2:00-5:00 EST, representatives from [Resilience and Durability to Extreme Weather Pilot Projects](#) will present on the findings and lessons learned from their studies in Workshop 1046 at the [TRB Annual Meeting](#). The interactive workshop will include time for questions and discussion with the pilot participants. The eleven projects addressed one or more of three areas related to deploying resilience solutions: Integrating resilience and durability into agency practices; using available tools and resources to assess the vulnerability and risk of transportation projects or systems; and deploying a resilience solution and monitoring performance.

Training Opportunities

FHWA Resource Center Environment, Air Quality & Realty Team Training Activities

[FHWA's Resource Center Environment, Air Quality & Realty Team](#) is available to offer MOVES and other trainings. Please contact Mike Claggett, at Michael.Claggett@dot.gov, for additional information or to discuss scheduling a training.

Additional Web-Based Transportation Conformity Training

Several web-based transportation conformity training opportunities are available on-demand from [FHWA's conformity training website](#) (under "Web-based Training"). These training opportunities range in level of detail from a short 27-minute video providing a high-level basic overview of transportation conformity to a detailed set of 32 self-directed training modules. Recordings of two webinars are available: basic transportation conformity overview (June 12, 2018, 70 minutes) and basic MOVES emissions model training (June 18, 2018, 42 minutes).

The target audience for these training materials are FHWA staff and State and local transportation partners (MPOs and State DOTs) who are either new to or would like a refresher training on the conformity process. For questions, please contact David Kall, at david.kall@dot.gov, or 202-366-6276.

CMAQ 101 Training

FHWA posted a 27-minute YouTube video on the CMAQ program. The video provides a basic introduction to the program, how CMAQ funds are distributed to States, and the types of projects eligible for the CMAQ

program. The training is available via [FHWA's YouTube channel](#). For more information about the CMAQ program, please contact Mark Glaze at mark.glaze@dot.gov or (202) 366-4053.

FHWA NEPA Air Quality Analysis for Highway Projects

The FHWA Resource Center Environment, Air Quality & Realty Team periodically conducts a series of training sessions on National Environmental Policy Act (NEPA) Air Quality Analysis for Highway Projects. The training includes sessions on project-level applications appropriate for managers and practitioners, as well as hands-on sessions intended for modelers. Please note this is not a general MOVES training course, but is focused on project-level applications. It is not intended to address regional applications, such as State Implementation Plan (SIP) emissions inventories or regional (plan and transportation improvement plan) conformity analyses. If you are interested in this training, please contact Michael Claggett at michael.claggett@dot.gov.

FHWA Web-Based Noise Training

FHWA has created a Traffic Noise Model (TNM) Playlist on its YouTube Channel and 4 new videos were added in December. These videos demonstrate how to install TNM, set up a project, and begin to conduct basic tasks in the software. The newly released videos cover how to input barriers, the barrier analysis tool, parallel barriers, and the input heights report. More videos will be posted throughout the year and each will be a short-format demonstration of 1 or 2 specific topics relating to using TNM. To access the playlist please visit [the TNM Training page](#). For technical assistance with TNM please contact TNMHelp@dot.gov.

Air Quality Planning Web Course Available at No Cost

The National Highway Institute (NHI) Air Quality Planning web-based training series is designed for transportation practitioners. It includes four modules: Clean Air Act Overview (FHWA-NHI-142068), SIP and Transportation Control Measure (TCM) Requirements and Policies (FHWA-NHI-142069), SIP Development Process (FHWA-NHI-142070), and Transportation Conformity (FHWA-NHI-142071). All courses are free. For more information, visit the [NHI website](#) and search "Air Quality Planning," or look for the specific course number. Please contact Karen Perritt at (202) 366-9066, or Karen.Perritt@dot.gov with any questions or comments.

Reminders

- **FHWA Released Updated 2020 CMAQ Cost-Effectiveness Tables.** The 2020 CMAQ Cost-Effectiveness Tables update was released in July 2020 and is available on the [CMAQ website](#). A [webinar](#) with details on this release is also available on the [CMAQ website](#). These tables are intended to provide information to assist States, MPOs, and other project sponsors as they make the most efficient use of their CMAQ funding to reduce vehicle emissions and traffic congestion.
- **FHWA Released CMAQ Scenario Development Research Project Report.** This report examines the potential for synergistic emissions benefits for groups of projects funded by the Congestion Mitigation and Air

Quality Improvement (CMAQ) program and describes benefits, challenges, and solutions in leveraging potential synergies among CMAQ projects. It provides grouping scenarios and sample menus of projects that might be expected to create synergies, for both metropolitan and statewide levels of application. The Scenario Development report can be accessed through the [CMAQ Scenario Development website](#).

- **FHWA Released Supporting Alternative Fuel Corridors with CMAQ Factsheet.** Alternative fuel vehicle (AFV) projects, including fleet conversions and refueling infrastructure, are one of the eligible project categories under CMAQ. Alternative Fuel Vehicle projects that receive CMAQ funding can also align with FHWA's Alternative Fuel Corridor Program. The Alternative Fuel Corridor Program designates national electric vehicle charging, hydrogen, propane, and natural gas fueling corridors; provides alternative fuel corridor signage guidance; encourages multi-State and regional collaboration; and engages a wide array of stakeholders to promote and advance alternative fuel corridors. Several States and local jurisdictions have used CMAQ funds for advancing alternative fuel goals. The AFC Factsheet can be accessed on the [CMAQ website](#).
- **Minnesota Department of Transportation (MnDOT) Released Updated Model for Pre-Engineering Analysis of Infrastructure Energy and Emissions.** MnDOT released [ICE 2.1](#), a spreadsheet model that evaluates the lifecycle energy and emissions from constructing and maintaining transportation facilities. ICE 2.1 uses simplified model inputs and is designed to inform long-range planning and other pre-engineering analysis. The model is also capable of developing ballpark estimates of the benefits from mitigation strategies. ICE 2.1 is an update to FHWA's ICE tool, released in 2014. ICE 2.1 was completed as part of a pooled fund strategy that included additional support from FHWA and the Departments of Transportation in New York, California, Colorado, Iowa, Washington State and Texas.

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Past issues of the *Air Quality and Sustainability Highlights* are available on FHWA's website:

http://www.fhwa.dot.gov/environment/air_quality/conformity/highlights/ or

<https://www.fhwa.dot.gov/environment/sustainability/newsletter/>.

Please e-mail Victoria.Martinez@dot.gov with any suggestions for future issues.