

July/August 2019

Air Quality and Sustainable Transportation Highlights

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



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Announcements and Recent Events

FHWA Releases 2015 8-Hour Ozone Non-Attainment Area Maps

The [2015 NAAQS nonattainment area maps](#) are now available on the Office of Planning, Environment and Realty (HEP) Air Quality Transportation Conformity website. The maps show the boundaries for nonattainment areas under the 2015 8-Hour Ozone standard, which applies to 52 areas across the country. More information on the 2015 NAAQS is available via the US Environmental Protection Agency (EPA) [here](#).

FHWA Issues Implementation Guide on Nature-Based Solutions for Coastal Resilience

[Nature-Based Solutions for Coastal Highway Resilience](#) is designed to help transportation practitioners understand how and where nature-based solutions can be used to improve the resilience of coastal roads and bridges. Upfront, it summarizes the potential flood-reduction benefits and co-benefits of these strategies. From there, the guide follows the steps in the project delivery process, providing guidance on how to consider nature-based solutions in the planning process, how to conduct a site assessment to determine whether nature-based solutions are appropriate, key engineering and ecological design considerations, permitting approaches, construction considerations, and monitoring and maintenance strategies. FHWA is planning to host a webinar on the report in October. Additional information on the webinar will be available soon on [FHWA's Resilience Webinars webpage](#).

FHWA Releases New and Updated Tools for the CMAQ Emissions Calculator Toolkit

A *Dust Mitigation* tool has been added to the CMAQ Emission Calculator Toolkit to estimate the reduction in emissions from street sweeping of paved roads. Reported emission benefits consider the reduction in fugitive dust emissions (PM10 and PM2.5) from road sweeping, paving and chemical treatment of unpaved roads.

In addition, a number of the existing tools are being updated to extend the project evaluation years to 2030, as they currently end at 2020. We expect this update to be completed for the remaining tools by November. The toolkit is accessible [here](#).

FHWA Offers Training for the CMAQ Emissions Calculator Toolkit

The Office of Natural Environment, in conjunction with the Resource Center will be delivering a series of training webinars for the CMAQ Emissions Calculator Toolkit. A total of six webinars will be delivered from September 2019 through March 2020 providing an introduction and demonstration of all ten tools available on the FHWA/CMAQ website. Webinars will be recorded and posted to the CMAQ website. Please contact Mark Glaze, 202-366-4053 for additional information.

EPA Releases New Version of AERMOD

The EPA released an updated version of the [AERMOD Modeling System](#) (Version 19191), which includes AERMOD executables, source code, documentation, and test cases. Specifically, for transportation purposes this new version adds the RLINE and RLINEXT source types to the existing LINE, AREA, and VOLUME source types. Included is an implementation [guidance document](#) that clarifies the possible regulatory applications of the RLINE source types. With this update, the EPA is also releasing the [AERMOD Modeling System Development](#) and Update Plan and the AERMOD development white papers.

NCHRP Releases Tool to Estimate Emission Reductions for Sixteen CMAQ Project Types

The National Cooperative Highway Research Program (NCHRP) under the Transportation Research Board (TRB) recently released a spreadsheet-based tool to estimate emissions reductions for 16 CMAQ project types (NCHRP 25-25, Task 108). The tool is intended to simplify the process of estimating emission reductions for users with limited air quality modeling experience or limited availability of data. The project summary notes that the tool provides default inputs for 16 “typical” project types, allowing users to “quickly estimate emissions savings from different project options” and makes use of emission benefit projections to project outyears. The [project report](#) and the [tool itself](#) are available for download via TRB.

Meetings, Conferences, and Workshops

US EPA Conference on Air Quality Models, October 2-3, 2019

EPA will hold the 12th Conference on Air Quality Models on October 2-3, 2019, on the EPA Campus in Research Triangle Park, North Carolina. For more information, see the EPA’s Support Center for Regulatory Atmospheric Modeling (SCRAM) [website](#).

Air and Waste Management Association Freight & Environment: Ports of Entry Conference, October 23-24, 2019

The Air & Waste Management Association (A&WMA) will host its inaugural conference on Freight & Environment: Ports of Entry, on October 23-24 in Newark, NJ. The conference will explore solutions to reduce the environmental impacts of all freight transportation, with a particular focus on ports of entry. The technical program will include panel discussions with experts in freight and its environmental impacts, along with presentations highlighting practices to minimize impacts from freight and shipping. The conference will bring together an international community of scientists, regulators, and practitioners to present ways to make freight more sustainable. The preliminary program for the conference is [available here](#) (pdf), and registration is available directly via [this link](#).

FHWA, AASHTO and TRB Conference on Transportation System Resilience, November 13-15, 2019

FHWA, AASHTO, and the Transportation Research Board (TRB) are sponsoring the [2nd International Conference on Transportation System Resilience to Natural Hazards and Extreme Weather](#) from November 13-15, 2019, at the National Academies Building in Washington, DC. The conference is designed to provide transportation agencies with information, research results, and example practices to assist in their ability to anticipate and adapt to the potential impacts of extreme weather events. Registration is now available. See the [conference website](#) or contact Heather Holsinger at Heather.Holsinger@dot.gov for more information.

TRB Conference on Health and Active Transportation, December 11-12, 2019

TRB is sponsoring the [Conference on Health and Active Transportation](#) on December 11-12, 2019 in Washington, DC. This conference will explore opportunities in quantifying the health effects of transportation policies, infrastructure, and travel behavior. It also intends to raise awareness of opportunities to integrate health and health equity into transportation planning across all levels (including planning for active transportation). Contact Bernardo Kleiner at BKleiner@nas.edu or Gary Jenkins at GJenkins@nas.edu for more information.

Training Opportunities

Introduction to Transportation Conformity: In-Person Trainings

The National Transit Institute (NTI) is offering in-person training opportunities covering its “Introduction to Transportation Conformity” course. This 2.5 day course will present basic information about conformity requirements and the relationship of the transportation and air quality planning processes in order to prepare agency staff (Federal, State and local) to participate in interagency consultation and work effectively in resolving conformity issues. For more information, please visit [the NTI registration website](#).

FHWA Resource Center Training Activities

FHWA’s Resource Center Air Quality Technical Services Team is available to offer MOVES and other trainings. More information about Resource Center training opportunities is available from the contacts listed at the [Resource Center website](#).

Project Level Training for Quantitative PM Hot-Spot Analyses

The US Environmental Protection Agency (EPA) has developed a three-day training course on completing quantitative PM hot-spot analyses according to EPA's "[Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas](#)" (PM Hot-spot Guidance). This course is geared towards State and local agency staff who will be completing these analyses, as well as those who may be reviewing, approving, or otherwise assessing hot-spot analyses. Previous modeling experience is not necessary, although familiarity with MOVES and air quality dispersion modeling may be helpful. There is no registration fee for this course. Details are available on [the EPA website](#).

Additional Web-Based Transportation Conformity Training

As a reminder, 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

The 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 the [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 Planning and Air Quality team will be conducting a series of training sessions on 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 SIP emissions inventories or regional (plan and TIP) conformity analyses. If you are interested in this training, please contact Michael Claggett at michael.claggett@dot.gov.

MySQL Training for MOVES Model Users

Two MySQL training opportunities are available for MOVES model users. A three-hour webinar provides an introduction to MySQL Query Browser and MOVES interface. A six-hour training over two days will enable users to do MySQL programming and to write their own MySQL scripts and to manipulate MySQL databases including MOVES input and outputs. For more information or to schedule training, please contact Michael Claggett at michael.claggett@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), State Implementation Plan (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

- **Congestion Mitigation and Air Quality Improvement Program (CMAQ) Emission Reductions Calculator.** The 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 DOTs, 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).

- **Computation Procedures for Non-SOV and Total Emissions Reduction Performance Measures.** FHWA released two public documents, [FHWA Computation Procedure for Travel Time Based and Percent Non-Single Occupancy Vehicle \(non-SOV\) Travel Performance Measures \(May 2018\)](#), and [Computation Guidance for Congestion Mitigation and Air Quality Improvement \(CMAQ\) Program Total Emissions Reduction Measure](#) to provide transparency in its calculations and to give State DOTs a frame of reference when establishing their targets through the FHWA Performance Management Form (PMF). A companion to the total emissions reduction document is also a [new reporting tool](#) in the CMAQ Public Access System.
- **TRB Report on Truck Activity Data for Emissions Modeling.** TRB's National Cooperative Highway Research Program (NCHRP) [Research Report 909: Guide to Truck Activity Data for Emissions Modeling](#) explores methods, procedures, and data sets needed to capture commercial vehicle activity, vehicle characteristics, and operations to assist in estimating and forecasting emissions from goods and services movement.

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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.