

November/December 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 Publishes Pilot Reports on Asset Management and Risk to Extreme Weather

FHWA published the first three reports (of six total) on [Asset Management and Risk to Extreme Weather](#), summarizing pilot studies with the State Departments of Transportation in Kentucky ([pdf](#)), Maryland ([pdf](#)) and Texas ([pdf](#)). The reports are part of a pilot program, announced in May 2017, which aims to help States incorporate information on resilience into asset management programs and their Transportation Asset Management Plans. Asset management plans must identify risks, including current and future environmental conditions, that can affect NHS pavements and bridges and the performance of the NHS (23 CFR 515.7(c)(1) and 515.9(d)(6)). As part of this effort, FHWA is also developing a guidebook to help States consider innovative ways to identify potential risks and address them in asset management processes and plan development. To stay up-to-date on additional reports and studies, visit the [FHWA Asset Management and Extreme Risk website](#).

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

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).

Most recently, the *Traffic Flow Improvement* and *Advanced Diesel Technologies Tools* were updated. FHWA is also working to extend the Project Evaluation Years to 2030, as some of the earlier tool's Project Evaluation Years currently end at 2020. The toolkit is accessible [here](#).

Materials Now Available from the TRB 2nd International Conference on Resilience to Natural Hazards and Extreme Weather Events

Presentations from the 2nd International Conference on Transportation System Resilience to Natural Hazards and Extreme Weather (Transportation Resilience 2019) are now available via the Transportation

Research Board (TRB). The conference took place from November 13-15, 2019 in Washington, DC, and brought together over 300 attendees. The conference provided transportation agencies with information, research results, and sample practices to assist in their ability to anticipate and adapt to the potential impacts of extreme weather events. The conference also included international dialogue on research, implementation, and lessons learned. The [TRB archive for the conference](#) includes a complete conference program as well as archived presentations and presenter biographies.

Elizabeth Habic Joins Sustainable Transportation and Resilience Team

The FHWA Office of Natural Environment welcomes Elizabeth Habic to the Sustainable Transportation and Resilience Team where she will work on resilience activities. Elizabeth joins FHWA from the Maryland State Highway Administration (SHA), where she led resiliency programs and activities since 2008. At SHA, she worked with multiple disciplines within the agency to determine how best to consider resiliency in their decisions, and she routinely worked with the American Association of State Highway Transportation Officials (AASHTO), TRB, and FHWA to advance the state of the practice. Her contact information is available at the end of this newsletter.

Meetings, Conferences, and Workshops

2020 Transportation Research Board Annual Meeting, January 12-16, 2020

The [Transportation Research Board \(TRB\) 99th Annual Meeting](#) was held January 12–16, 2020, at the Walter E. Washington Convention Center, in Washington, D.C. The information-packed program attracted transportation professionals from around the world. The meeting program covered all transportation modes, with presentations and workshops, addressing topics of interest to policy makers, administrators, practitioners, researchers, and representatives of government, industry, and academic institutions. A number of sessions and workshops focused on the spotlight theme for the 2020 meeting: *A Century of Progress: Foundation for the Future*.

Details regarding the more than 100 specialty workshops are [available online](#) now. These workshops took place on the first and last day of the meeting. The [full 2020 program](#) is also available (requires a myTRB account to view), as are [curated sample programs](#) on key topics including Energy and Sustainability ([pdf](#)), Resilience and Security ([pdf](#)), and System Performance and Asset Management ([pdf](#)). Lastly, the FHWA Air Quality/Noise team and the Sustainable Transportation and Resilience Team sponsored booths at the Exhibit Hall.

Call for Presentations for TRB Transportation, Environment, and Energy: An Integrated Research Symposium Summer Meeting

Transportation Research Board (TRB) committees on Environmental Analysis in Transportation, Transportation and Air Quality, Ecology and Transportation, Transportation-Related Noise and Vibration, Resource Conservation and Recovery, Transportation Energy, Alternative Transportation Fuels and Technologies announce the call for abstracts for the July 12 – 15, 2020 Summer Meeting in Denver, CO. Those interested in presenting at the Symposium should review the [Call for Presentations](#) and submit an abstract by **March 15th**. Instructions for submitting your abstract are detailed at the top of the [Call for Presentations](#) page.

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 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

- **Mid-Point Applicability Determination for the CMAQ Traffic Congestion and CMAQ On-Road Mobile Source Emissions Measure.** FHWA published the [Mid-Point Applicability Determination for the CMAQ Traffic Congestion and CMAQ On-Road Mobile Source Emissions Measures](#). As required in 23 CFR Part 490.105(e)(8)(iii) and (e)(9)(v), FHWA published the updated October 1, 2017 applicability tables to reflect changes that occurred after October 1, 2017 and on or before October 1, 2019, as of the mid-point of the first performance period. The next applicability determination will be made on October 1, 2021.
- **FHWA Implementation Guide on Nature-Based Solutions for Coastal Resilience.** FHWA’s [Implementation Guide: 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. It summarizes the potential flood-reduction benefits and co-benefits of these strategies. The guide also provides recommendations on how to consider nature-based solutions in each step of the project delivery process, from the planning process to project monitoring and maintenance.
- **FHWA Webinar on Changes in Appendix W.** On Tuesday, December 3, 2019, the FHWA Resource Center Air Quality Team and the Air Quality and Transportation Conformity Team in the Office of Natural Environment (HEPN) hosted a webinar on the relevant sections of EPA’s Final Rule, 40 CFR Part 51 Appendix W, “Guideline on Air Quality Models”, especially those that

are related to the use of air quality dispersion models for hot-spot analysis for highway projects located in CO, PM2.5 and PM10 nonattainment and maintenance areas. The webinar is designed for FHWA staff in the air quality discipline as well as State DOT and other practitioners that are responsible for conducting hot-spot analyses for conformity purposes. The [webinar recording](#) is now available.

- **National Governor's Association (NGA) White Paper on State Practices in Transportation Electrification.** The National Governor's Association's (NGA) recent white paper, *Transportation Electrification: States Rev Up*, summarizes findings from four regional workshops held between November 2018 and April 2019 to discuss increasing electrification of the transportation system. The workshops engaged 40 States across the country and included officials from governors' offices, multiple State agencies and departments, and experts from the private sector, academia, Federal agencies and research and policy organizations. The summary report is available directly [via the NGA website](#) (pdf). For each workshop's agenda and slides, please visit [NGA's website](#).
- **NCHRP Tool to Estimate Emission Reductions.** The National Cooperative Highway Research Program (NCHRP) 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 report](#) and the [tool itself](#) are available for download via TRB.
- **TRB Conference on Health and Active Transportation, December 11-12, 2019.** TRB sponsored the [Conference on Health and Active Transportation](#) on December 11-12, 2019 in Washington, DC. This conference explored opportunities for research on the health effects of transportation policies, infrastructure, and travel behavior. Contact Bernardo Kleiner at BKleiner@nas.edu or Gary Jenkins at GJenkins@nas.edu for more information.

Contacts

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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.