

March/April 2020

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

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 *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 toolkit website. The toolkit is accessible [here](#).

FHWA CMAQ Project Spotlight Highlights Recent Efforts to Reduce Emissions

FHWA recently published a series of five spotlight profiles on recent CMAQ-funded projects, on [the CMAQ Program website](#). The purpose of these profiles is to highlight recent efforts by transportation agencies and transit providers to reduce emissions and mitigate congestion in a variety of settings and modes, across the country. Each profile provides a brief description of the project, highlights the emissions benefits calculated for the project, and details the other benefits from the project in the metropolitan area or community. The five projects include: the [Massachusetts Bay Transit Authority \(MBTA\) Green Line Extension \(GLX\) Project](#) in Somerville and Medford, MA; [Compressed Natural Gas \(CNG\) Refuse Haulers and Fueling](#) in Park Forest and Homewood, IL; a [CNG Refueling Station](#) in Hobart, IN; the [Georgia Commute Options \(GCO\) Program](#) in the Atlanta, GA metropolitan area; and [Hybrid Electric Ferry Conversion](#) in Seattle, WA.

FHWA and Arizona DOT Release a Report on Asset Management and Risk to Extreme Weather

The Arizona Department of Transportation (ADOT) recently published a pilot report on [Asset Management, Extreme Weather, and Proxy Indicators](#), as part of the FHWA pilot program on Asset

Management and Risk to Extreme Weather. The report summarizes ADOT's risk-based asset management pilot effort to use geographic information system-based (GIS-based) analysis to identify and synthesize risks on the ADOT system. The intent of the pilot is to demonstrate that lifecycle planning can play a key part in improving resilience to extreme weather and natural hazard events while reducing safety risks and costs and improving reliability of roadways in Arizona. This is the fourth of six reports in the FHWA pilot program, which aims to help States incorporate information on resilience into asset management programs and their Transportation Asset Management Plans. To stay up-to-date on additional reports and studies, visit the [FHWA Asset Management and Extreme Risk website](#).

NHTSA Releases Safer Affordable Fuel-Efficient 'SAFE' Vehicles Rule

On March 31, 2020, the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) and the U.S. Environmental Protection Agency (EPA) released the final [Safer Affordable Fuel-Efficient \(SAFE\) Vehicles Rule](#) setting corporate average fuel economy (CAFE) and CO₂ emissions standards for model years 2021-2026 passenger cars and light trucks.

FEMA Updates Resilience Analysis and Planning Tool (RAPT)

The Federal Emergency Management Agency (FEMA) recently released updates to [the Resilience Analysis and Planning Tool \(RAPT\)](#). The RAPT is a geographic information system (GIS) tool to help emergency managers and community partners with any level of GIS ability to visualize and assess potential challenges to community resilience. The tool was developed using FEMA's analysis of current body of peer-reviewed, academic, community resilience research, which identified 20 indicators of community resilience, including population and community-focused indicators. The web-based tool is accessible via [this link](#), and FEMA has published an updated [overview document](#) and [user guide](#).

NCHRP Releases Guidebook on Costs and Benefits of Adaptation Measures

The Transportation Research Board's (TRB) National Cooperative Highway Research Program (NCHRP) recently released a report evaluating the costs and benefits of different adaptation measures for transportation systems facing risks from extreme weather events. The pre-publication draft of [NCHRP Research Report 938](#) was developed to fill the gaps identified by State Departments of Transportation (DOTs) who face limited capacity to develop Cost-Benefit Analyses (CBAs) on new projects in light of future risks from extreme weather and coastal flooding. The report is a resource for transportation practitioners to more easily consider CBAs in their investment-decision making processes when considering different extreme weather adaptation alternatives. The report also has additional resources, including a PowerPoint presentation summarizing the research, a spreadsheet tool that provides an approximate CBA with future conditions, and a spreadsheet tool that uses existing conditions only to calculate a return period. The report and associated resources can be [accessed via TRB](#).

The Association of Metropolitan Planning Organizations Releases CMAQ White Paper and Webinar Recording

The Association of Metropolitan Planning Organizations (AMPO) released the [Congestion Mitigation and Air Quality Improvement \(CMAQ\) Program White Paper](#). The purpose of this White Paper is to share information collected in a survey of metropolitan planning organizations (MPOs) on the CMAQ Program and to provide examples of different practices and approaches in four key CMAQ program areas: Intrastate distribution of CMAQ funds, CMAQ project selection processes and criteria, Emissions reduction estimating methodologies for CMAQ-funded projects, and, CMAQ performance measures and

target setting. On April 8, 2020, a webinar was held to highlight the findings of the white paper and the recording of the webinar and additional materials related to the webinar can be found on [AMPO's website](#).

Meetings, Conferences, and Workshops

TRB Transportation, Environment, and Energy: An Integrated Research Symposium Summer Meeting Cancelled

The Transportation Research Board (TRB) committees on Environmental Analysis in Transportation and Air Quality, Ecology and Transportation, Transportation-Related Noise and Vibration, Resource Conservation and Recovery, Transportation Energy, and Alternative Transportation Fuels and Technologies were to host a Symposium in Denver, CO on July 12-15, 2020. However, TRB has announced the cancelation of this Symposium.

Sustainability and Emerging Transportation Technology (SETT) 2020: *Shaping the Future of Mobility*, August 31-September 2, 2020, Irvine, CA

The SETT 2020 conference will bring together researchers, practitioners, and policy-makers to discuss and debate the intersection of *sustainability* and *emerging transportation technologies* with a focus on solutions. The conference will address questions around how academics, policy-makers, the private sector, NGOs, and others can work together to shape new mobility solutions to benefit all users of our transportation systems. For more information about the conference is available [via the conference website](#).

Association of Metropolitan Planning Organizations (AMPO) Annual Conference, October 26-30, 2020.

The Association of Metropolitan Planning Organizations has announced their [Annual Conference](#) to be held in Minneapolis, Minnesota on October 26 – 30, 2020. Presentation proposals were accepted through April 13, 2020, but more details about the conference will be announced in the summer. If you have any questions, please contact Sarah Hicks at shicks@ampo.org or 202-624-3682.

Please note: in-person events listed are all currently scheduled, as of the publication of this newsletter. Please check with the event organizers to confirm the latest 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. Please contact Mike Claggett, at Michael.Claggett@dot.gov, for additional information or to discuss scheduling a training.

EPA Trainings Cancelled or Held via Webinar

US EPA has announced the cancellation of the previously-scheduled [Air Emissions Inventory training on MOVES](#), to be hosted May 5-7 in Research Triangle Park, NC. EPA has also announced that following trainings are entirely cancelled for May (both in-person and webinar, if applicable):

- MOVES
- Wagon Wheel
- Nonpoint ICI
- Emissions Inventory Prep for Modeling
- Nonpoint RWC
- How to Review the NEI Using EIS and Other Tools
- Emission Factor Procedure Guidance

The following trainings will be held via webinar in May (no in-person training):

- Inventory Guidance for Ozone, PM and Regional Haze
- Combined Air Emissions Reporting (CAER)
- Commercial Marine Vessels methods
- Rail methods

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 Environment 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.

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 Making the Connections: Transportation Outreach Brochures.** The FHWA has created a series of short [outreach brochures](#) to communicate how the [Economic Benefits](#) are realized when transportation investment decisions support [Active Transportation](#), [Complete Streets](#), [Interagency Cooperation](#), [Public Transit](#) and [Rural and Small Town](#) transportation connections. For more information, please contact Victoria Martinez at victoria.martinez@dot.gov or 787-771-2524.
- **CDC Active Communities Tool.** The US Centers for Disease Control (CDC) released a new tool, [The Active Communities Tool \(ACT\): An Action Planning Guide and Assessment Modules to Improve Community Built Environments to Promote Physical Activity](#). The tool helps committed, cross-sector teams create an action plan for improving community built environments that promote physical activity consistent with their community context.
- **CDC Active People, Healthy Nation Initiative.** CDC is launching a new initiative, dubbed [Active People, Healthy NationSM](#), to help 27 million Americans become more physically active by 2027 and promote effective strategies to increase physical activity at the State and local level. The goal of initiative is to support [strategies that work](#) to increase physical activity in communities.

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- **Use of Custom Domains in MOVES.** As part of planning for future versions of MOVES, US EPA is interested in feedback from modelers on how often they use Custom Domains, what types of modeling purposes this approach is used for, and perspectives on the advantages and limitations of this approach as compared to the more common county and project scale modeling. If you have experience running MOVES for Custom Domains, please email mobile@epa.gov with “Custom Domain” in the subject line.
 - **NCHRP Tool to Estimate Emission Reductions.** The National Cooperative Highway Research Program (NCHRP) 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 via TRB.

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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.