

January/February 2018

## Air Quality and Sustainable Transportation Highlights

*Prepared by the Office of Natural Environment  
Federal Highway Administration*



U.S. Department of Transportation  
Federal Highway Administration

### Table of Contents

Announcements and Recent Events.....	1
Training Opportunities.....	2
Reminders.....	4
Contacts.....	6

## Announcements and Recent Events

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### **FHWA Releases Comprehensive Guide to Transportation Vulnerability Assessment and Adaptation**

[The Federal Highway Administration's \(FHWA's\) Vulnerability Assessment and Adaptation Framework, Third Edition](#), provides transportation agencies and their partners with an in-depth and structured process for assessing vulnerabilities to extreme weather and other environmental conditions and for identifying ways to protect, preserve, and improve transportation assets and services.

The Framework provides information on a range of applications, from small qualitative studies to complex, quantitative-driven analyses, and from State or regional systems level analysis down to project-specific analyses. The Framework describes the primary steps involved in conducting a vulnerability assessment, including the key considerations and best practices for each step. The updated Framework provides more examples from assessments conducted nationwide and includes links to related resources that practitioners can access for more in-depth information. Please contact Rebecca Lupes at [Rebecca.Lupes@dot.gov](mailto:Rebecca.Lupes@dot.gov) for additional details.

### **New Modules Added to Congestion Mitigation and Air Quality Improvement Program Emission Reductions Calculator**

The FHWA is continuing to develop a series of tools to provide technical support for the implementation of the Congestion Mitigation and Air Quality Improvement (CMAQ) Program. CMAQ project justifications, as well as annual reporting, require reliable air quality benefit estimates. This CMAQ Emission Reductions Calculator is offered as an additional resource to assist DOTs, MPOs, and project sponsors in the project justification process. Agencies using an existing methodology to generate emissions benefits can continue their current practice. A new module is available for Transit Bus Retrofits/Replacement, which supplements the existing modules on Traffic Flow Improvements, the Advanced Diesel Truck/Engine Technologies, Alternative Fuels and Vehicles, and Carpooling/Vanpooling. Other modules planned for release in 2018 include Transit Bus Service/Fleet Expansion, Diesel Idle Reduction Technologies, and Bicycle/Pedestrian Improvements. All modules are available on the [FHWA CMAQ Emissions Calculator Toolkit](#) webpage. For more information, please contact Mark Glaze at [Mark.Glaze@dot.gov](mailto:Mark.Glaze@dot.gov) or (202) 366-4053.

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## **New Case Studies on Resilience in Project Development Identify Strategies in Colorado and Alaska**

FHWA recently published two case studies as part of a series on [Addressing Resilience in Project Development](#): the first covering adaptation approaches to handle permafrost in Alaska, and the second describing environmental and economic analyses to identify wildfire and rainfall risks that impact the design of a culvert in Colorado. Both case studies detail the analytical methods and forecasting models used, potential adaptation options, recommended project development approaches, and key lessons learned. For more information, see the case studies and key contacts: [Addressing Environmental Conditions in the Design of Roadways Built on Permafrost \(PDF 4.1 MB\)](#); [Wildfire and Precipitation Impacts to a Culvert: US 34 at Canyon Cove Lane, Colorado \(PDF 11 MB\)](#).

## **FHWA Quick Guide Points State DOTs and FHWA Division Offices to Relevant Regulations on Renewable Energy Projects in the Highway Right-of-Way**

FHWA recently published the [Quick Guide: FHWA Requirements for Renewable Energy Projects in Highway Right-of-Way](#) (December 2017). This guide points transportation agencies to the relevant regulations, including 23 CFR 645, Accommodation of Utilities, if the state Utility Accommodation Policy considers renewable energy projects as utility facilities that serve the public, or 23 CFR 710 Right-of-Way Use Agreements otherwise.

## **The 1997 Ozone NAAQS: South Coast Air Quality Management District v. USEPA Decision**

On February 16, 2018, the D.C. Circuit issued a decision in [South Coast Air Quality Management District v. EPA](#). The decision covers many topics including the revocation of the 1997 ozone NAAQS and associated conformity requirements. FHWA is working with EPA in reviewing the decision and evaluating the appropriate next steps. Please contact Cecilia Ho at 202-366-9862 or [cecilia.ho@dot.gov](mailto:cecilia.ho@dot.gov).

## **Alternative Fuels Corridor Second Round Designations Update**

FHWA recently completed the second round of designations for the Alternative Fuels Corridor program. With the designation of these corridors, FHWA is continuing to establish a national network of alternative fueling and charging infrastructure along national highway system corridors. Visit the [Alternative Fuels Corridor website](#) to learn about the new designations and view updated corridor maps and information.

## **Training Opportunities**

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### **Introduction to Transportation Conformity: In-Person Training**

The National Transit Institute (NTI) is offering three 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 course website](#). Trainings are scheduled for:

- April 16-18, 2018 – Philadelphia, PA
- April 25-27, 2018 – Phoenix, AZ

- May 30- June 1, 2018 – Seattle, WA

## Upcoming MOVES2014a Hands-On Training Opportunities

The US Environmental Protection Agency's (EPA) Office of Transportation and Air Quality has scheduled three MOVES2014a Hands-on Training sessions:

- April 24-25, 2018 – Atlanta, GA. Contact: Gary Dolce, US EPA, [dolce.gary@epa.gov](mailto:dolce.gary@epa.gov)
- May 15-16, 2018 – Research Triangle Park, NC. Contact: Sally Dombrowski, US EPA, [dombrowski.sally@epa.gov](mailto:dombrowski.sally@epa.gov).  
*This training is part of part of a State/Local/Tribal Emissions Inventory Training Workshop and some material will be abbreviated.*
- June 19-20, 2018 – Ann Arbor, MI. Contact: Gary Dolce, US EPA, [dolce.gary@epa.gov](mailto:dolce.gary@epa.gov)

Use the contact information above to register and get more information. For general information about the content of the course, future course offerings, etc., contact the MOVES Team at [mobile@epa.gov](mailto:mobile@epa.gov).

The latest version of MOVES2014a is available via the [EPA MOVES2014A website](#). [Course materials](#) can also be downloaded prior to attending the course.

## Alabama Workshop on NEPA Air Quality Analysis for Highway Projects

FHWA will offer their NEPA Air Quality Analysis for Highway Projects workshop for the Alabama Department of Transportation this March/April. The training consists of an introductory webinar on March 28, and an in-person 3-day workshop for modelers on April 10-12 in Montgomery, Alabama.

The half-day webinar includes sessions appropriate for managers, practitioners, and modelers alike, such as assessing air pollutant impacts from highways; the EPA MOVES model; highway air quality analysis; and the general approach for using the EPA's dispersion models.

The 3-day Workshop for modelers includes hands-on sessions focusing on the data needs for conducting highway air quality analyses; using MOVES for project-level mobile analysis; using MOVES to develop emission rates for dispersion modeling; and using AERMOD and the CAL3 series of dispersion models for highway project analysis. Several in-class exercises are designed to practice modeling techniques and use the tools discussed.

Contact Michael Claggett at [Michael.Claggett@dot.gov](mailto:Michael.Claggett@dot.gov) for more information.

## 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 [here](#). For more information about the CMAQ program, please contact Mark Glaze at [mark.glaze@dot.gov](mailto: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

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regional (plan and TIP) conformity analyses. If you are interested in this training, please contact Michael Claggett at [michael.claggett@dot.gov](mailto:michael.claggett@dot.gov).

### MySQL Training for MOVES Model Users

Two 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 Paul Heishman at [Paul.Heishman@dot.gov](mailto:Paul.Heishman@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](mailto:Karen.Perritt@dot.gov) with any questions or comments.

### FHWA Resource Center Training Activities

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

## Reminders

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- **U.S. EPA 2017 Trends Report “Our Nation’s Air” Available**  
The latest [annual trends report](#) from the U.S. EPA summarizes trends in air quality for six National Ambient Air Quality Standard (NAAQS) pollutants, for visibility, and for emissions of 187 hazardous pollutants.
- **2017 Carbon Monoxide (CO) Categorical Hot-spot Finding**  
The 2017 CO categorical hot-spot finding is [available](#). This finding updates and supersedes the February 2014 finding and uses the latest version of the MOVES emissions model, MOVES2014a.
- **Resilience Webinar Series Recordings**  
Recordings of FHWA’s fall 2017 webinar series on the results of recent climate resilience research, including the [Synthesis of Approaches for Addressing Resilience in Project Development](#) report, are now available. The list of webinar topics and all recordings are available on [FHWA’s Resilience Webinars Page](#).
- **MOVES Model Review Work Group**  
The U.S. EPA’s Federal Advisory Committee Act [MOVES Model Review Work Group](#) continues to provide input on the development of the next official version of MOVES, expected to be released in 2018 at the earliest.

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- **EPA Interpretations of Exempt Projects under Transportation Conformity**  
EPA, in consultation with FHWA, recently clarified its interpretations of certain exempt projects in an effort to ensure national consistency in how transportation conformity requirements are implemented. Specifically, interpretations for [road diets](#), auxiliary lanes, and ramp metering projects were recently updated in 40 CFR 93.126, Table 2.
  - **FHWA Applicability Determination for the CMAQ Performance Measures**  
As required in 23 CFR Part 490, FHWA published the first biennial [applicability determination](#) for the CMAQ performance measures, using nonattainment and maintenance area and urbanized area data as of October 1, 2017. The determination applies to the first performance period for the CMAQ Traffic Congestion and CMAQ On-Road Mobile Source Emissions measures.
  - **TRB's Transportation Research Record: Air Quality Studies**  
The Transportation Research Board's (TRB) Transportation Research Record: Journal of the Transportation Research Board, No. 2627 consists of 11 papers that explore air quality in transportation. The full list of study titles and the report download are available from TRB at [this link](#).
  - **FHWA Post-Hurricane Sandy Transportation Resilience Study**  
A recently published study aimed to identify the impacts of October 2012's Hurricane Sandy (and to a lesser extent, earlier storms including Hurricane Irene) on transportation assets within the greater NY-NJ - CT metropolitan region. The study also assessed the vulnerability of assets to the impacts of extreme weather events and identified adaptation strategies. The study report is available [here](#).
  - **FHWA Case Study Report: Practices for Sustainable Rest Area Design and Operations**  
A new report describes practices that transportation departments have pursued at rest areas, including green building design, changing operations procedures, and on-site renewable energy. The report includes case study examples from Florida, North Carolina, Colorado, Georgia, and Vermont. Access the report [here](#).

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## 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/](http://www.fhwa.dot.gov/environment/air_quality/conformity/highlights/) or <https://www.fhwa.dot.gov/environment/sustainability/newsletter/>.

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