

Air Quality and Climate Change Highlights

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



U.S. Department of Transportation
Federal Highway Administration

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Announcements and Recent Events

Fixing America's Surface Transportation Act (FAST Act) Signed

On December 4, 2015, President Obama signed into law the Fixing America’s Surface Transportation Act (FAST Act). The re-authorization bill increases national transportation funding by 11 percent over the next five years. The FAST Act largely maintains current program structures and funding shares between highways and transit. The law also makes changes and reforms to many Federal transportation programs, including streamlining the approval processes for new transportation projects, providing new safety tools, and establishing new programs to advance critical freight projects. Notably, the FAST Act adds resiliency to the list of factors that states and MPOs must consider in their transportation planning processes. The FAST Act also requires USDOT to designate alternative fuel corridors along major national highways and issue a report. This includes electric charging, hydrogen, propane and natural gas. USDOT must solicit nominations for corridors from State and local officials and involve a range of stakeholders. FAST makes Transit Oriented Development (TOD) expenses eligible for funding under highway and rail credit programs. TOD promotes dense commercial and residential development near transit hubs in an effort to support increases in transit ridership and promote walkable, sustainable land use. More information on the new law can be found at: <https://www.transportation.gov/fastact/>.

Conference of the Parties (COP-21) Climate Change Agreement Reached

The leaders of 196 countries reached an historic agreement to address greenhouse gas emissions at climate change negotiations in Paris on December 12, 2015. The negotiations are known formally as the 21st session of the Conference of the Parties (COP 21) to the United Nations Framework Convention on Climate Change (UNFCCC). Unlike previous climate efforts, the agreement establishes a framework that covers both developing and developed countries. It also included a requirement for all parties to report regularly on their national emissions, efforts to reduce these emissions, and to be subject to international review. Consistent with earlier treaties, the agreement reaffirms the goal of limiting global temperature increase to well below 2 degrees Celsius below pre-industrial levels; it also introduces a new aspirational goal of limiting future warming to 1.5 degrees Celsius. The agreement also establishes a global goal to enhance adaptive capacity, strengthen resilience, and reduce vulnerability to climate change. More information on the Agreement can be found at <http://unfccc.int/2860.php>.

Official Release of EMFAC2014 Motor Vehicle Emission Factor Model for Use in the State of California

The U.S. EPA approved the EMFAC2014 emissions model for State Implementation Plan (SIP) and conformity purposes, effective December 14, 2015. The new model, which is based on new and improved data, calculates air pollution emissions factors for passenger cars, trucks, motorcycles, motor homes, and buses. EMFAC2014 must be used for all new regional emissions analyses and carbon monoxide (CO) and particulate matter (PM₁₀ and PM_{2.5}) hot-spot analyses for transportation conformity purposes that are started on or after December 14, 2017. For more information, please visit:

<https://www.gpo.gov/fdsys/pkg/FR-2015-12-14/html/2015-31307.htm>

Transportation Conformity Guidance for 2012 PM_{2.5} Nonattainment Areas

The U.S. EPA released guidance for meeting transportation conformity requirements in areas designated nonattainment for the 2012 primary annual PM_{2.5} national ambient air quality standards (2012 PM_{2.5} NAAQS). The guidance is intended to take the information contained in the transportation conformity rule (40 CFR Part 93) and the U.S. EPA's existing guidance for implementing conformity in multi-jurisdictional areas, and demonstrate how conformity specifically applies in the context of the 2012 PM_{2.5} NAAQS. The guidance can be downloaded at:

<http://www3.epa.gov/otaq/stateresources/transconf/documents/420b15091.pdf>.

White House Announces 2015 GreenGov Award Winners

On November 23, 2015, the White House announced the GreenGov Presidential Awards recipients. The GreenGov awards celebrate extraordinary achievement in the pursuit of President Obama's Federal Sustainability goals. They honor Federal civilian and military personnel, agency teams, agency projects, facilities, and programs that exemplify President Obama's charge to lead by example. The FHWA received the Good Neighbor category award for setting out to develop more livable communities through an increase in transportation choices and access to transportation services. FHWA employees partnered with universities, the Memphis Metropolitan Planning Organization, the Tennessee Department of Transportation, NGOs, and other Federal agencies in their area to implement statewide programs and collaborate on their desired multi-objective outcomes. Their efforts led to increased investment in infrastructure, facilities, and services for improved multimodal transportation. Additionally, investments were made in extreme weather vulnerability assessments, improved infrastructure for growing freight demands, and assessments of the overall sustainability of transportation plans. For more information, please visit: <https://www.fedcenter.gov/Announcements/index.cfm?id=28741>

U.S. EPA Strengthens the Air Quality Standards for Ground-Level Ozone

On October 1, 2015, the U.S. EPA strengthened the National Ambient Air Quality Standards (NAAQS) for ground-level ozone to 70 parts per billion (ppb), based on extensive scientific evidence about ozone's effects on public health and welfare. According to the Federal Register Notice, the updated standards will improve public health protection, particularly for at-risk groups including children, older adults, people of all ages who have lung diseases such as asthma, and people who are active outdoors, especially outdoor workers. U.S. EPA projections show the vast majority of U.S. counties will meet the standards by 2025 with federal and state rules and programs now in place or underway. For more information, including a version of the final rule, please see: <http://www3.epa.gov/ozonepollution/actions.html>.

EPA Releases MOVES2014a

On November 4, 2015, U.S. EPA's Office of Transportation and Air Quality released MOVES2014a, a minor revision to EPA's Motor Vehicle Emission Simulator (MOVES2014) emission modeling tool. For on-road emissions, MOVES2014a adds new options requested by users for the input of local vehicle miles traveled (VMT), includes minor updates to the default fuel tables, and corrects an error in MOVES2014 brake wear emissions. The change in brake wear emissions results in small decreases in PM emissions, while emissions for other criteria pollutants remain essentially the same as MOVES2014. MOVES2014a incorporates several improvements in the calculation of non-road equipment emissions. It adds volatile organic compounds (VOCs) and toxics to the list of pollutants that can be directly estimated for non-road equipment. State and local agencies that have already completed significant work with MOVES2014 do not need to redo or revise that work with MOVES2014a. The model revision does not significantly change the criteria pollutant emissions results of MOVES2014 and therefore is not considered a new model for SIP and transportation conformity purposes. The revised model, supporting documentation, and more information on the model revision can be found on the MOVES website: <http://www.epa.gov/otaq/models/moves/index.htm>.

Research

Transportation Research Board 95th Annual Meeting in Washington, DC

The 95th annual meeting of the Transportation Research Board (TRB) took place January 10-14, 2016, at the Walter E. Washington Convention Center, in Washington, D.C. The information-packed program was expected to attract more than 12,000 transportation professionals from around the world. For more information, please visit: <http://www.trb.org/AnnualMeeting/AnnualMeeting.aspx>.

It All Adds Up to Cleaner Air Website

The FHWA currently is in the process of updating the *It All Adds Up to Cleaner Air* website (http://www.fhwa.dot.gov/environment/air_quality/it_all_adds_up/) and refreshing it with new materials. The agency would like to hear about successful programs and exemplary materials to include on the website. *It All Adds Up to Cleaner Air* is a public education and partnership-building initiative developed by several federal agencies for the purpose of informing the public about the impact of their transportation choices on traffic congestion and air quality. Organizations that use *It All Adds Up* enjoy access to free customizable materials, including advertisements, billboards, and television public service announcements. Tutorials in the Education Center assist with planning, implementing, and evaluating an air quality campaign. Please contact Victoria Martinez at Victoria.Martinez@dot.gov or (787) 771-2524 for more information.

Reminders

Transportation and Health Tool

The U.S. Department of Transportation and the Centers for Disease Control launched a new online Transportation and Health Tool that provides easy access to data that practitioners can use to examine the health impacts of transportation systems. The tool provides data on a set of 14 transportation and public health indicators available at the State, Metropolitan Statistical Area, and Census Urbanized Area levels. The tool also describes how the transportation environment affects safety, active transportation, air quality, and connectivity to destinations. Information and resources are available to help agencies better understand the links between transportation and health and to identify strategies to improve public health through transportation planning and policy. The tool is available at: <http://www.transportation.gov/transportation-health-tool>.

FHWA Posted MOVES for NEPA MSAT Quantitative Analysis Frequently Asked Questions

This FHWA technical assistance document provides information on how the FHWA recommends project sponsors can use MOVES for NEPA MSAT quantitative analysis including: a) defining the scope of MOVES work; b) gathering input data; and c) post-processing results. These are insights based on FHWA's experience in conducting quantitative MSAT analysis. The interim guidance should continue to be referenced for questions about the type of MSAT analysis needed. The FAQs are available at http://www.fhwa.dot.gov/environment/air_quality/air_toxics/policy_and_guidance/moves_msat_faq.cfm. For more information contact Victoria Martinez at victoria.martinez@dot.gov or (787) 771-2524.

FHWA Guidance on Bicycle and Pedestrian Provisions of Federal Transportation Legislation Update

On September 10, 2015, the FHWA Bicycle and Pedestrian Program updated the *FHWA Guidance: Bicycle and Pedestrian Provisions of Federal Transportation Legislation* webpage to provide updated references to Federal surface transportation legislation, make technical corrections and clarifications, and include references and links to other policies or guidelines. The purpose of this guidance is to describe Federal legislative and policy direction related to safety and accommodation for bicycling and walking. The document describes the range of opportunities to improve conditions for bicycling and walking in communities. The updated guidance can be found at http://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/guidance_2015.cfm.

The 2008 Ozone NAAQS Proposed Rule Making for Marginal Areas

On August 27, 2015, the U.S. EPA proposed three separate determinations related to the 36 areas that are currently classified as “Marginal” for the 2008 ozone National Ambient Air Quality Standards (NAAQS). The first proposed to determine that 17 areas attained the 2008 ozone NAAQS by the applicable attainment date of July 20, 2015. The second proposed to grant 1-year attainment date extensions for eight areas on the basis that the requirements for such extensions under the Clean Air Act have been met. Third, the U.S. EPA is proposing to determine that 11 areas failed to attain the 2008 ozone NAAQS by the applicable attainment date of July 20, 2015, and that they are not eligible for an extension, and to reclassify these areas as “Moderate” for the 2008 ozone NAAQS. Once reclassified as Moderate, states must submit State Implementation Plan (SIP) revisions that meet the statutory and regulatory

requirements that apply to 2008 ozone NAAQS nonattainment areas classified as Moderate. Note that in areas that receive an extension or are bumped up, their “attainment year” for the purposes of meeting the budget test (40 CFR 93.118(d)(2)) under the conformity regulation would change for conformity determinations made after the effective date for the final attainment date extension or reclassification. The proposed rule is available at <https://federalregister.gov/a/2015-21196>.

Proposed Appendix W Rulemaking: Replacement of CALINE3 Comment Period

The comment period for U.S. EPA’s proposal to revise the Guideline on Air Quality Models closed on October 27, 2015. The U.S. EPA proposed replacing CALINE3 with AERMOD as the preferred model for determining near-field impacts for emissions from mobile sources, including PM_{2.5}, PM₁₀, and CO hot-spot analyses. The proposed rule was published in the Federal Register on July 29, 2015 (80 FR 45340). Supporting documentation, including a Technical Support Document addressing the application of AERMOD for mobile sources and proposed model code, can be found in Docket ID No. EPA-HQ-OAR-2015-0310 at www.regulations.gov and the 11th Conference on Air Quality Models website. For more information, including a copy of the proposal, a fact sheet, and U.S. EPA contact information, please see <http://www3.epa.gov/ttn/scram/11thmodconf.htm>.

FHWA Webinar Series: Advancing a Sustainable Highway System - Recordings available

The Sustainable Transport and Climate Change Team within FHWA’s Office of Natural Environment recently posted webinar recordings related to the FHWA report *Advancing a Sustainable Highway System: Highlights of FHWA Sustainability Activities*. The aforementioned report illustrates how sustainability has been incorporated into a wide variety of FHWA programs, projects, policies, processes, and partnerships. So far, the Office of Natural Environment has hosted three webinars as part of the *Advancing a Sustainable Highway System* Webinar Series, focusing on Access and Affordability, Linking Asset Management and Planning, and Sustainable Pavements, respectively. The webinar recordings and transcripts are available at:

https://www.sustainablehighways.dot.gov/FHWA_Sustainability_Activities_Webinars.aspx. If you have any questions regarding the webinar series or the report, please contact Connie Hill at Connie.Hill@dot.gov or (804) 775-3378.

Climate Change Resiliency Conference Presentations Available

Slide presentations are available online for the First International Conference on Surface Transportation System Resilience to Climate Change and Extreme Weather Events. Organized by the Transportation Research Board (TRB), the conference was held on September 16-18, 2015, in Washington, DC. It provided transportation professionals with information on emerging best practices and state-of-the-art-research results on how to adapt surface transportation networks to the potential impacts of climate change and extreme weather events. Many of the presentation slides are available within the conference program on the conference webpage at:

<http://onlinepubs.trb.org/onlinepubs/conferences/2015/ClimateChange/Program.pdf>. Click on the title of the individual presentation to view the slides.

Training Opportunities

CMAQ 101 Training

On October 28, 2015, the FHWA released a 27-minute YouTube video on the Congestion Mitigation and Air Quality Improvement (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 at <https://www.youtube.com/watch?v=XKXcs0WtNHA&feature=youtu.be>. For more information about the CMAQ program contact Emily Biondi at emily.biondi@dot.gov or (202) 366-9482.

TRB Webinar offered on U.S. EPA's Revised Ozone Standard

[Registration](#) is now open for a TRB organized and hosted webinar on U.S. EPA's revised ozone standard. The webinar is scheduled for Thursday, February 25, 2016 from 2:00PM to 3:30PM ET. Program panelists will discuss the process involved in setting and meeting the new ozone standard. This webinar was organized by the TRB Standing Committee on Transportation and Air Quality. Participants must register in advance of the webinar, and there is a fee for non-TRB Sponsor or non-TRB Sustaining Affiliate employees. A certificate for 1.5 Professional Development Hours (PDHs) will be provided to attendees who register and attend the webinar as an individual.

EPA Posts MOVES2014 Training Course Material

The U.S. EPA posted updated training materials for the MOVES2014 two-day hands-on training course at <http://www3.epa.gov/otaq/models/moves/training.htm>. On the same webpage, the U.S. EPA has also posted an abbreviated version of the MOVES2014 course materials used as a one-day training course. MOVES users who did not attend a previous hands-on training session can use the "MOVES2014 Training Materials" as a self-taught course.

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 his/her own MySQL scripts and to manipulate MySQL databases including MOVES input and outputs. For more information or to schedule training, please contact John Byun at Joon.Byun@dot.gov or Paul Heishman at Paul.Heishman@dot.gov.

Web-based Training Courses Available

A variety of web-based training opportunities are accessible via the FHWA Conformity Website, at http://www.fhwa.dot.gov/environment/air_quality/conformity/training/. Training includes Air Quality Planning, Transportation Conformity, and others. Please contact Karen Perritt at Karen.Perritt@dot.gov or (202) 366-9066 with any questions or comments.

FHWA Resource Center Training Activities

FHWA's Resource Center Air Quality Technical Services Team is available to offer MOVES training, and information is available at the [Resource Center website](#).

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[FHWA Resource Center Air Quality Team](#)

Past issues of the *Air Quality and Transportation Conformity Highlights* are available on FHWA's website: http://www.fhwa.dot.gov/environment/air_quality/conformity/highlights/. Past issues of the *Transportation and Climate Change Newsletter* are available on FHWA's website: http://www.fhwa.dot.gov/environment/climate_change/newsletter/.

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