

Air Quality and Climate Change Highlights

Prepared by the Office of Natural Environment
Federal Highway Administration



U.S. Department of Transportation
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Table of Contents

Announcements and Recent Events.....	1
Research	3
Reminders	4
Training Opportunities	5
Contacts	6

Announcements and Recent Events

Transportation Information Added to Climate Change Data Resource and Toolkit

The Obama Administration recently launched new transportation “themes” to the Climate Data Initiative (CDI) and the Climate Resilience Toolkit (CRT). Users logging into <http://www.data.gov/climate/transportation> can find more than 90 datasets from across six federal agencies related to climate change and transportation. These datasets include a comprehensive inventory of the nation’s highway system, airports, and railroad crossings, as well as census data of all ferry operators in the United States and its territories. The U.S. Climate Resiliency Toolkit website provides a freely available set of case studies, visualizations, and other science-based resources that enable users to better understand and respond to the impacts of climate change on the transportation sector. For more information, please visit: <http://www.transportation.gov/fastlane/unleashing-climate-data-and-tools-empower-america%E2%80%99s-transportation-sector>.

FHWA Conducting Advancing a Sustainable Highway System Webinar Series

The FHWA is hosting a webinar on Sustainable Pavements on July 29 at 2:00 p.m. EST as part of a webinar series based on [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. Each webinar will highlight a particular section of the report and will feature specific FHWA activities that advance sustainability. This series will serve as a resource to the public, transportation professionals, and those working within the FHWA to help them better understand the various sustainability activities and initiatives moving forward within the Agency. Registration is not required, but the webinar room is limited to 100 participants and is first come, first served. For more information on the webinar series, go to https://www.sustainablehighways.dot.gov/FHWA_Sustainability_Activities_Webinars.aspx or contact Connie Hill at Connie.Hill@dot.gov or (804) 775-3378.

MAP-21 CMAQ Assessment Report Brochure and On-Demand Web Recording Available

A brochure that summarizes the findings of the *Air Quality and Congestion Mitigation Measure Outcomes Assessment Study* is now available. In addition, FHWA has posted on the website an on-demand web recording that highlights the study findings. The study was mandated in Section 1113 (c) of Moving Ahead for Progress in the 21st Century Act (MAP-21), which directed the examination of the outcomes of actions funded under the Congestion Mitigation and Air Quality (CMAQ) Improvement program since the enactment of the Safe, Accountable, Flexible, Efficient Transportation Efficiency Act: A Legacy for Users (SAFETEA-LU). The brochure, the on-demand recording, and the study reports are available on FHWA's CMAQ website:

http://www.fhwa.dot.gov/environment/air_quality/cmaq/research/outcomes_assessment/. For more information, please contact Karen Perritt at Karen.Perritt@dot.gov or (202) 366-9066.

Southern Transportation and Air Quality Summit 2015

The Southern Transportation and Air Quality Summit 2015 will be held August 12-13, 2015, in Atlanta, Georgia. This event is sponsored by the FHWA and U.S. EPA Regions 4 and 6. The purpose of the summit is to bring together stakeholders from both the transportation and air quality communities to discuss the current and coming regulatory environment, technologies, and current practices vital to the fields of air quality and transportation. The summit is geared to practitioners involved with public agencies at all levels. A host of speakers from within the southern and eastern regions will present a number of key topics, best practices, and latest information vital to transportation, planning, and air quality professionals. Conference registration is through the Atlanta Regional Commission at <http://www.atlantaregional.com/STAQS2015/>. The registration fee is \$65. For more information, please contact Mike Roberts at michael.roberts@dot.gov.

Proposed Appendix W Rulemaking: Replacement of CALINE3

On July 14, 2015, EPA signed a proposal to revise the Guideline on Air Quality Models. The Guideline provides EPA-recommended models and other techniques, as well as guidance for their use, for predicting ambient concentrations of air pollutants. EPA is proposing to replace CALINE3 with AERMOD as the preferred model for determining near-field impacts for primary emissions from mobile sources, including PM_{2.5}, PM₁₀, and CO hot-spot analyses. Additionally, the proposal is supposed to enhance the formulation and application of the agency's AERMOD dispersion model, prescribe modeling techniques for secondarily formed fine particle and ozone pollution for single sources and makes various editorial improvements. EPA will accept comments on the proposal for 90 days after it is published in the Federal Register. Additionally, all supporting documentation and proposed model code will be available through the Docket (ID No. EPA-HQ-OAR-2015-0310) and the 11th Conference on Air Quality Models website at the time of Federal Register publication. For more information, including a copy of the proposal, a fact sheet, and EPA contact information, see <http://www.epa.gov/ttn/scram/11thmodconf.htm>.

Climate Change Resiliency Conference

The First International Conference on Surface Transportation System Resilience to Climate Change and Extreme Weather Events will be held on September 16-18, 2015, at The National Academy of Sciences Building in Washington, DC. Organized by the Transportation Research Board (TRB), the conference will provide 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. The conference will examine cost-effective and resilient decision making by State DOTs, MPOs, transit, and other transportation agencies in planning and programming, capital improvements, and maintenance and operations. For more information about the conference and to register, please visit: <http://www.cvent.com/events/first-international-conference-on-surface-transportation-system-resilience-to-climate-change-and-ext/event-summary-cba1008fb1724a6eb2edd2898f16fc91.aspx>.

Transportation for Sustainability—An International Conference Presentations and Webcast Recording Available

Slide presentations and webcast recordings of the Transportation for Sustainability—An International Conference are now available. The thought-provoking conference was organized by the TRB and co-sponsored by the FHWA. Held in May 2015, the conference brought together practitioners and researchers from six continents to discuss common challenges and solutions in building transportation systems that enhance social, economic, and environmental outcomes. Topics included climate change, automated vehicles, measuring sustainability, institutionalizing sustainability, multi-modal solutions, and international trade and travel. Slide presentations are available as links from the conference program: <http://www.cvent.com/events/transportation-for-sustainability-an-international-conference/custom-35-027c6580aaa54f68b793ac1c9c100cab.aspx>. Webcast recording of the conference is available at: http://events.webcastingconferences.com/600_trb_sustainability.

It All Adds Up to Cleaner Air 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. For more information, please visit: http://www.fhwa.dot.gov/environment/air_quality/it_all_adds_up/.

Research

Report on Climate Change Resilience Pilots Peer Exchanges

The FHWA published a report on *Climate Change Resilience Pilots Peer Exchanges: Baltimore, Maryland, July 16-17, 2014*. The Climate Resilience Pilot Program continues to advance the body of work and refine the Vulnerability Assessment Framework. The nineteen pilots selected to participate represent state DOTs, MPOs, and FLMAs from across the country. These pilot teams are partnering with the FHWA to assess transportation vulnerability and evaluate options for improving resilience. In order to build relationships and facilitate small group interaction, the FHWA organized the pilot teams into three

groups focused on the following topics: vulnerability assessments, adaptation options, and adaptation options focused on hydraulics. Throughout the program, the pilot teams are participating in webinars and peer exchanges that are tailored to the needs of each group. The report can be accessed at: http://www.fhwa.dot.gov/environment/climate_change/adaptation/ongoing_and_current_research/vulnerability_assessment_pilots/exchanges_summary/index.cfm.

FHWA Electric Vehicle Deployment and Infrastructure Study

The final report on *Feasibility and Implications of Electric Vehicle (EV) Deployment and Infrastructure Development* (FHWA-HEP-15-021) summarizes the information gathered during the various foundational research activities of the project, describes the development of eight long-term market penetration scenarios, presents the methodology used to undertake the scenario analysis, summarizes the findings of the analysis, and presents conclusions covering a range of possible “pathways” for the FHWA and partner action, including possible additional research for consideration. The report can be accessed at: http://www.fhwa.dot.gov/environment/climate_change/mitigation/publications_and_tools/ev_deployment/index.cfm.

Integrating Climate Change and Land Use Planning

In May 2015, the Volpe Center published a report on the Central New Mexico Climate Change Scenario Planning Project (CCSP), an Interagency Transportation, Land Use, and Climate Change Initiative. *Integrating Climate Change in Transportation and Land Use Scenario Planning: An Example from Central New Mexico* utilized a scenario-planning process to develop a multi-agency transportation- and land use-focused development strategy for the Albuquerque region of New Mexico to achieve a reduction in future greenhouse gas emissions and to prepare for the potential impacts of climate change on the region. The outcomes of this scenario-planning process informed and supported the region’s long-range transportation planning and other related efforts as well as the planning efforts of local, state, and federal agencies. The CCSP resulted in a preferred land use and transportation scenario for the region that accommodates anticipated growth. By considering future climate change impacts and GHG emission reduction strategies, the scenario is more resilient and sustainable than the trend or status quo. The report is located at: http://www.fhwa.dot.gov/environment/climate_change/adaptation/publications_and_tools/scenario/index.cfm.

Reminders

EPA Revises Initial Area Designations for PM_{2.5} NAAQS

On March 31, 2015, the U.S. EPA issued additional or revised initial area designations for several areas and a technical amendment to correct an inadvertent error in the initial area designation for one area for the 2012 annual National Ambient Air Quality Standard (NAAQS) for fine particulate matter (PM_{2.5}). The designations were effective on April 15, 2015. In areas that are designated nonattainment under the 2012 PM_{2.5} standard, transportation conformity requirements will apply for that standard one year after the designation effective date for metropolitan transportation plans, TIPs, and projects. For more information, please visit: <http://www.epa.gov/pmdesignations/2012standards/regs.htm>.

Infrastructure Voluntary Evaluation Sustainability Tool Case Studies Posted

INVEST (Infrastructure Voluntary Evaluation Sustainability Tool) was developed by the FHWA as a practical, web-based collection of voluntary best practices, called criteria, designed to help transportation agencies integrate sustainability into their programs (policies, processes, procedures, and practices) and projects. While the use of INVEST is voluntary, it can be used by transportation agencies, such as DOTs, MPOs, Council of Governments, public works departments, and their consultants and partners, to evaluate and aid the integration of sustainability into their programs and projects. Practitioners can now read about how Delaware DOT used INVEST to improve its pavement and rehabilitation program, how Utah DOT implemented sustainability recommendations from their INVEST evaluation to provide significant cost savings to the agency, and how Cape Cod Commission used INVEST to improve their transportation plan. These case studies can be found at <https://www.sustainablehighways.org/779/case-studies.html>.

FHWA Webinar Series: Building a Climate Resilient Transportation System – Recordings available

The *Building a Climate Resilient Transportation System* webinar series allowed practitioners to share information, results, and lessons learned through recent work by FHWA/U.S. DOT and State and MPO partners to make the transportation system more resilient to climate change and extreme weather events. The full series is available for viewing on FHWA's website at the link below. There are two tracks in the series. The first track focuses on the processes used in the Gulf Coast Study, Phase 2 (Mobile, Alabama) and transferable methods developed for other agencies to assess the vulnerability of transportation infrastructure. The second track focuses on FHWA's recently completed Climate Resilience Pilot program, which supported 19 pilot projects around the country to assess vulnerabilities and develop strategies to make transportation infrastructure and operations more resilient to climate change and extreme weather events. Recordings are available online at http://www.fhwa.dot.gov/environment/climate_change/adaptation/webinars/.

Training Opportunities

National Transit Institute Offers Two Upcoming Courses

The National Transit Institute (NTI) has scheduled two upcoming training courses related to air quality, sustainability, and environmental issues. The first course is The Introduction to Transportation Conformity course which presents 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. The course is in St. Louis, Missouri on September 9-11, 2015.

The second course is on Transit-Oriented Development (TOD) and is scheduled for September 30-October 1, 2015, in Las Vegas, Nevada. The goal of this course is to help transportation and land use professionals effectively participate in the planning, funding, and implementation of transit-oriented projects that improve the environment, create a sense of community, and boost transit ridership. This course is an intermediate course. Although not required, participants should have a working knowledge of basic transportation, land use planning, transit planning, and operational concepts. For course information and registration, please visit <http://www.ntionline.com/>.

EPA Posts MOVES2014 Training Course Material

In June 2015, the U.S. EPA posted updated training materials for the MOVES2014 two-day hands-on training course at www.epa.gov/otaq/models/moves/training.htm#2. These training materials are updated versions of the ones used at the April 2015 MOVES2014 courses in Austin, Texas, and Rocky Hill, Connecticut. On the same webpage, the U.S. EPA has posted an abbreviated version of the MOVES2014 course materials used in the one-day training course offered at the 2015 International Emission Inventory Conference in San Diego, California. MOVES users who did not attend any of these training sessions 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.