



Association of Metropolitan Planning Organizations (AMPO)

Air Quality Working Group

April 23-24, 2018

Maricopa Association of Governments (MAG)

302 North 1st Avenue, Suite 200

Phoenix, Arizona 85003

Meeting Attendees:

Bill Keyrouze, Association of Metropolitan Planning Organizations (AMPO)

Rachel Roper, Association of Metropolitan Planning Organizations (AMPO)

Cecilia Ho, Federal Highway Administration (FHWA)

Ed Stillings, Federal Highway Administration (FHWA) Arizona Division

Amy St. Peter, Maricopa Association of Governments (MAG)

Bob Hazlett, Maricopa Association of Governments (MAG)

Lindy Bauer, Maricopa Association of Governments (MAG)

Dean Giles, Maricopa Association of Governments (MAG)

Monique de los Rios, Maricopa Association of Governments (MAG)

David D'Onofrio, Atlanta Regional Commission (ARC)

Sara Tomlinson, Baltimore Metropolitan Council (BMC)

Russel Pietrowiak, Chicago Metropolitan Agency for Planning (CMAP)

Terri Sicking, KYOVA Interstate Planning Commission (KYOVA)

Harold Brazil, Metropolitan Transportation Commission (MTC)

Jane Posey, Metropolitan Washington Council of Governments (MWCOC)

Jenny Narvaez, North Central Texas Council of Governments (NCTCOG)

Beth Xie, Regional Transportation Commission of Southern Nevada (RTCNSV)

Sarah Siwek, Sarah J. Siwek & Associates, Inc.

Laura Berry, Environmental Protection Agency (EPA) *[phone]*

Meg Patulski, Environmental Protection Agency (EPA) *[phone]*

Megan Beardsley, Environmental Protection Agency (EPA) *[phone]*

Mike Conger, Knoxville Transportation Planning Organization *[phone]*

Angelina Foster, New York Metropolitan Transportation Council (NYMTC) *[phone]*

David Heller, South Jersey Transportation Planning Organization (SJTPO) *[phone]*

Jilan Chen, Southeast Michigan Council of Governments (SEMCOG) *[phone]*

Melissa Savage, American Association of State Highway and Transportation Officials (AASHTO) *[phone]*

Welcome and Introductions

Bill opened the meeting by welcoming members of the working group and thanking MAG for hosting the meeting. He asked participants to introduce themselves. Amy St. Peter, MAG's Assistant Director and Title VI Coordinator, also welcomed everyone.

MOVES201X Update

David introduced the Motor Vehicle Emission Simulator, MOVES¹. He participates on the MOVES Model Review Working Group. The working group expressed concerns about ensuring that smaller to medium sized metropolitan planning organizations (MPOs) and others with limited resources be considered with the new model. David shared that level of burden issues always need to be considered. For those with limited resources and not currently using MOVES, it may be challenging. However, once an agency becomes proficient with the tool the changes should not be burdensome.

Megan Beardsley and Laura Berry from the EPA provided a presentation on the updates: a minor update beginning this summer to MOVES 2014b and a major update that will be completed within the next few years. Megan is team leader for the MOVES model. (See attached presentation, Planned Updates for the Next Version of MOVES, April 23, 2018).

The working group asked if there would be a grace period to phase in the transition to the new version. The EPA is working with FHWA to determine the grace period. There is no requirement to transition to minor updates, only major ones.

The working group asked about the use of MySQL. Eventually the transition will be made to MariaDB, but that will not be in MOVES 2014b. The switch should be transparent to users.

Laura explained that additional training opportunities will be announced.

Transportation System Resilience and Climate Change

- MPO Activities
- FHWA/EPA Resources

The group provided updates related to transportation system resilience and climate change.

ARC has participated in resilience workshops and the FHWA's Climate Resilience Pilot Program². They are exploring strategies to incorporate resilience into their planning process, including the metropolitan transportation plan (MTP), project evaluation process, and a vulnerability assessment for the region.

BMC's MTP has two resiliency related goals under environmental protection and safety and security. Online mapping of sea level rise overlaid on planned projects is available online in an

¹ <https://www.epa.gov/moves>

² <https://www.fhwa.dot.gov/environment/sustainability/resilience/pilots/index.cfm>

interactive format³. They have used the Energy and Emissions Reduction Policy Analysis Tool (EERPAT)⁴. Their state department of transportation (state DOT) is using the United States Department of Transportation's (USDOT) Vulnerability Assessment Scoring Tool (VAST).

CMAQ is updating their MTP. Their greenhouse gas inventories are updated regularly with their plan updates. This update includes the development of strategy papers on topics relating to storm water, flooding, climate resiliency, equity, and resource management. CMAQ is considering participating in an Argonne National Laboratories and University of Chicago effort to supplement national data and analysis by installing sensors in the city to help understand conditions corresponding to emissions levels. The Chicago Community Trust funded a strategy paper on climate resilience.

KYOVA is a new small transportation management area (TMA). They do not have a specific program on resiliency, but recognize related issues in their Transportation Improvement Program, MTP, and work elements. They recently completed a storm water study for downtown Huntington funded through the Strategic Highway Research Program 2. The next step is to try to implement recommendations from the study.

MTC has adopted a plan that has six resilience actions that cover issues such as regional governance, resilient housing, funding, equity, and RAM advanced mitigation for infrastructure and projects. They also received a few resiliency related grants, including the Rockefeller Foundation Resilient by Design Challenge. All of these efforts are available on their website.

One of MWCOG's recent projects is on coastal flooding and was started in 2017 with the Army Corps of Engineers. They also have a Climate Energy and Environment Policy Committee and a Multi-Sector Working Group⁵. The Multi-Sector Working Group is developing voluntary goals and strategies to lower greenhouse gas in the region. Projects in their next MTP will be asked to identify which of those strategies they support.

NCTCOG's region includes ten counties in nonattainment for ozone. They participated in the FHWA Climate Resilience Pilot Program. It focused on two large counties and assessed vulnerable areas. NCTCOG has various sections involved in resiliency including environmental stewardship, regional toll road funding, and asset management. They also do policy bundling, for example, for their clean fleet policy, and have used the FHWA Infrastructure Voluntary Evaluation Sustainability Tool (INVEST)⁶ on their MTP. They work with their member cities on their greenhouse gas inventories.

NYMTC was a recipient of a grant from FHWA on resiliency. They include resiliency in the planning process and are exploring congestion pricing. The city has been the lead on greenhouse gas—information is available on the city websites.

RTCSNV approved their MTP early last year. Its goals and strategies include strengthening regional economic competitiveness, enhancing quality of life, and ensuring sustainable use of

³ <https://baltometro.org/our-work/environmental-planning/environmental-coordination-mapping>

⁴ https://www.planning.dot.gov/FHWA_tool/default.aspx

⁵ <https://www.mwcog.org/committees/>

⁶ <https://www.sustainablehighways.org/>

infrastructure and resources. The program Strong Southern Nevada works with local entities to implement some of the goals. They are also working with local entities on recovery plans and have a few big initiatives, including a transit study to look at access from the airport to resorts and upgrades to I-15.

SEMCOG has regular meetings with industry and the state to discuss air quality issues. As occurred recently, when a new pollutant reaches nonattainment, they develop strategies for it.

SJTPO developed a GHG emissions inventory for their counties a few years ago. It not only covered transportation but other sectors. This was not done in-house. It provides a baseline set of data. They have yet to progress to projections or development of technical strategies.

Sarah shared information about the Smart, Shared, and Social: All Hazards Recovery Plan Training led by Portland State University and funded by the Federal Transit Administration. It is a two-day course focused on recovery that was piloted in six regions.

FHWA completed a series of five resilience pilot programs. The most recent focused on resilience and durability to extreme weather and funded eleven projects from metropolitan planning organizations, state DOTs, and federal agencies. This along with other resources such as case studies and research is available on their website⁷. FHWA also completed its second round of alternative fuel corridor designations, which includes eighty-four interstate corridors in forty-four states.

Some of the items discussed included:

- Staff resources for developing and implementing plans and grants. Some agencies hired consultants to supplement staff resources.
- Within agencies, where does air quality fall? Agencies had a variety of responses including resiliency, asset management, security, and environment.
- The term resiliency is not always well defined and can mean different things to agencies and stakeholders.
- While transportation impacts emissions, it is not the only factor. Land use and technology (e.g., Corporate Average Fuel Economy [CAFE] standards) play a big role.
- Challenges related to obtaining greenhouse gas inventory baselines at local levels.

Roundtable Discussion: AMPO Air Quality Working Group

- Purpose of Working Group
- Review Scope of Work
- Identify Key Issues and Needs
- Identify Deliverables (i.e. white papers, materials)
- Discuss 2018-19 Work Plan

⁷ <https://www.fhwa.dot.gov/environment/sustainability/resilience/pilots/>

Bill reviewed the working group's purpose and scope of work. The objective for this scope of work is to advance and broaden the state of MPO practice in carrying out performance-based metropolitan transportation planning and programming in the context of addressing the implications of transportation planning and investment on air quality and climate change, and to address new and emerging air quality and climate change issues, challenges, and opportunities.

The working group will convene for five meetings and AMPO staff will prepare four white papers designed to support MPO air quality planning programs and practices. Bill shared that the five meetings will take place in different regions within the nation: Southwest (Phoenix, AZ), Southeast, Northeast, and Midwest. The group will convene the next meeting in October or November barring any major conflicts during that time. He will work with FHWA to narrow down the range of dates and follow up with the group.

Bill asked the group to identify key issues to devote their resources and time during the remaining meetings or for the white paper content. The group suggested:

- Performance measures and performance planning;
- South Coast Air Quality Management District v. EPA;
- Calculating CMAQ Emissions Benefits Survey;
- MOVES Update;
- Communicating Conformity Guide;
- Conformity 101 Toolkit;

Air Quality and Transportation Research

- *USDOT Research*
- *State and/or MPO Research*
- *TRB*
- *Connected/Automated Vehicles and Emissions*

The AMPO Connected and Autonomous Vehicles (C/AV) working group has not specifically explored conformity. In having conversations with other agencies and groups, C/AV and air quality does not seem to have been explored at an in-depth level yet.

The group also discussed some of the activities of TRB's Transportation and Air Quality Committee, ADC20⁸. TRB held a webinar the Wednesday after the working group meeting on Technology Changes Influencing the Decline of Vehicle Emissions⁹.

ARC explored a run model with C/AV and NCTCOG created a program area and team for C/AV. NYMTC is doing research on how to streamline the conformity process.

The group asked how could the role of the MPO be further defined related to C/AVs and how can MPOs help facilitate this not only from a conformity standpoint, but a planning standpoint?

⁸ <https://www.trbairquality.org/>

⁹ <http://www.trb.org/ElectronicSessions/Blurbs/177385.aspx>

At FHWA, they continued the development of the CMAQ Emissions Calculator Toolkit¹⁰ and data library to help support the performance measures. They are also updating the cost-effectiveness tables that were developed a few years ago, have ongoing research on traffic dataset applications for air quality and noise analyses, and are doing additional analysis to streamline project level carbon monoxide analysis. There is also a pooled fund on Near-road Air Quality and NCHRP 25-55: Assessment of Regulatory Air Pollution Dispersion Models to Quantify the Impacts of Transportation Sector Emissions.

Outreach/Training/Education

- *MPO Whitepaper/Guidebook*
- *CMAQ Toolkit*
- *CMAQ Training*
- *AMPO Transportation Conformity and Air Quality Issues Workshop*

FHWA recently completed a detailed on-demand web-based conformity training¹¹ that covers all aspects of the conformity process. AMPO is interested in developing a workshop on conformity geared to MPO staff (that does not compete with the FHWA training). The group discussed holding it in conjunction with AMPO's technical conference, the TRB summer meeting, EPA training, the 2018 Northern Transportation Air Quality Summit (NTAQS) in Newark, NJ, or Southern Transportation Air Quality Summit (STAQS).

South Coast Air Quality Management District v. EPA

- *AMPO/AASHTO Letter*
- *Potential/Expected Impacts*
- *FHWA/EPA Update*
- *Guidance and Implementation*
- *AMPO Next Steps*

Many MPOs/states will be affected—impacting billions of dollars in projects across the country. Bill asked working group members to send him information on how they will be affected. EPA has until 11:59pm tonight to file their appeal on the court decision. If EPA does, AMPO and AASHTO will have seven calendar days to file an amicus brief supporting EPA's appeal. Must show proof of what the burden is.

FHWA and EPA each provided a status update on the ruling. The FHWA shared that they had developed joint interim guidance with the Federal Transit Administration¹². Both FHWA and EPA shared that additional guidance would be released.

¹⁰ https://www.fhwa.dot.gov/environment/air_quality/cmaq/toolkit/

¹¹ https://www.fhwa.dot.gov/environment/air_quality/conformity/training/sdtrain.cfm

¹² <https://tpf.transportation.org/wp-content/uploads/sites/35/2018/05/FHWA-FTA-Guidance-on-EPA-NAAQS-Ruling-2018-04-23.pdf>

The working group discussed many concerns, including:

- Could the decision translate to or set a precedent for other pollutants (e.g. PM2.5)
- When will the effective date be?
- When will guidance be released to provide information on how regions are affected?
- When will guidance be released to provide information on how to move forward?

AMPO Policy Positions and Reauthorization Priorities

- AMPO Legislative Priorities Document
- The President's Infrastructure Initiative

Reducing Inefficiencies in Protecting Clean Air

1. Eliminate Confusion by Clarifying that Metropolitan Planning Organizations Need only Conform to the Most Recent National Ambient Air Quality Standard
 - a. Currently, the Clean Air Act requires EPA to establish National Ambient Air Quality Standards (NAAQS) for certain pollutants. It also requires EPA to periodically review and, if necessary, update these standards.
 - b. This creates a problem every time EPA promulgates newly updated NAAQS before prior standards are revoked. State DOTs and MPOs may be required to demonstrate conformity to both the old and new standards for the same pollutant, creating redundancy and uncertainty, and causing State DOTs and MPOs to spend their limited resources unnecessarily.
 - c. Amending the Clean Air Act to clarify that conformity requirements apply only to the latest NAAQS for the same pollutant would avoid this confusion and reduce legal challenges.
2. Reduce Uncertainty by Establishing Motor Vehicle Emissions Budgets before Requiring Initial Transportation Conformity Determinations for Newly Designated Areas
 - a. Currently, the Clean Air Act requires a newly designated area to comply with conformity requirements one year after the effective date of the final 45 nonattainment designation (42 U.S.C. 7506(c)). Conformity typically is demonstrated by showing that an area's transportation plans will not exceed the motor vehicle emissions budget established for that area.
 - b. This creates a problem for newly designated areas because the emissions budget usually takes longer than a year to establish and for EPA to approve. Therefore, in order to demonstrate conformity, MPOs in newly designated areas have to use other less suitable tests, such as "an interim emissions test" or a test based on emissions budgets developed for a previous standard for the same pollutant. These requirements have created confusion and uncertainty.
 - c. Allowing transportation conformity to apply one year after EPA approves or finds the emissions budgets adequate for conformity purposes would eliminate confusion and give MPOs certainty in meeting Federal requirements.

The FAST Act ends in 2020. AMPO will set up meetings on the Hill to discuss MPO issues. In addition to the above, are there other items we should include?

- Increasing the number of monitors in areas
- Clean Air Interstate Rule (CAIR) and Cross-State Air Pollution Rule (CSAPR)
- Public outreach and comment period for the conformity process

Roundtable Discussion: MAP-21 Implementation

- MPO Updates
- FHWA/EPA Updates
- AMPO Updates
 - CMAQ Measures: MPOs establish 4-year targets not later than 180 days after the date on which the relevant State DOT(s) establishes targets for Interstate and non-Interstate NHS Travel Time Reliability, Freight Reliability, PHED, and Total Emissions Reduction measures. Where applicable, MPOs establish both 2-year and 4-year targets for Percent Non-SOV Travel and Total Emissions Reduction measures. The MPOs report their established targets to their respective State DOT in a manner that is documented and mutually agreed upon by both parties.
 - The CMAQ Traffic Congestion performance measures are applicable to all urbanized areas that include NHS mileage and with a population over 1 million for the first performance period and in urbanized areas with a population over 200,000 for the second and all other performance periods, that are, in all or part, designated as nonattainment or maintenance areas for ozone (O₃), carbon monoxide (CO), or particulate matter (PM₁₀ and PM_{2.5}) National Ambient Air Quality Standards (NAAQS).
 - As required in 23 U.S.C. 149(l), each MPO serving a TMA with a population over 1 million representing nonattainment and maintenance areas must develop a CMAQ Performance Plan, updated biennially, to report baseline condition/performance, targets, projects that will contribute to the targets, and the progress toward achievement of targets for the CMAQ traffic congestion and on-road mobile source emissions measures. Likewise, 23 CFR 490.105(f)(6)(iii) these MPOs must establish both 2-year and 4-year targets for the metropolitan planning area.
https://www.fhwa.dot.gov/environment/air_quality/cmaq/measures/cmaq_applicability/page03.cfm#toc494364641

FHWA:

- Recently updated the FAQs section on their Transportation Performance Management (TPM) website to provide guidance on TPM planning rules
- Recently updated their and their timeline to provide clarification on the unified targets.

- Posted the CMAQ performance measures applicability lists¹³
- Held the office hours format webinar
- Is holding a webinar on the CMAQ Emission Calculator Toolkit on Thursday, June 29
- Office of TPM is developing a database for the public to access targets
- Is finalizing a guidebook to assist MPOs with developing the CMAQ performance plan; the guidebook will provide example templates for MPOs to use when developing their CMAQ performance plans.
- Is developing a one-page summary to list all the requirements for developing targets for the emissions measures

NCHRP Project 8-36C, Task 141, “Evaluation of Walk and Bicycle Demand Modeling Practice” is also underway. AMPO sent the survey to members at the beginning of this year. The project explores the state of the practice and standardizing the model for bicycle and pedestrian modes.

The working group discussed:

- Target setting methodology, reporting (e.g., CMAQ Annual Report), the CMAQ Public Access System, and UPACS.
 - Target setting specifically for multistate MPOs
 - Target setting qualitative and quantitative analysis
 - Target setting timeline—especially related to the first and second performance periods
 - Revising targets
 - Emissions benefits reporting
 - Modeling emissions reductions in general and for ridesharing
- Which agency within a region controls CMAQ funds?
- The possibility of creating a bicycle and pedestrian module for CMAQ
- Other project types that contribute to emissions reductions

2015 ozone standard nonattainment designations

The working group discussed challenges and the process for the 2015 ozone standards as well as issues related to the conformity process in general, including:

- The 2015 Ozone Standard and its implications for conformity budgets, state conformity rules (SIPs), etc.
- What motor vehicle emissions budgets to use for conformity
- How many conformities do agencies do each year?
- What challenges do agencies experience?
- How long does conformity process take?
- Roles and responsibilities of agencies within a region/state for air quality data collection and analysis, planning, and conformity analysis.

¹³ https://www.fhwa.dot.gov/environment/air_quality/cmaq/measures/cmaq_applicability/

- Self-assessments (e.g., based on project type, regional significance, or functional classification) to determine whether a project is exempt or non-exempt—non-exempt projects trigger the conformity process.
- Data inputs
- Conformity budgets

Wrap-up and Adjourn