AGENDA
AIR QUALITY ADVISORY COMMITTEE*
TUESDAY May 26, 2015
10:00 a.m. - 12:00 noon
East-West Gateway Board Room

I. **Call to Order**
-Michael Coulson, Chair, East-West Gateway Council of Governments
A. Minutes of March 24, 2015 Meeting

II. **Roxana Air Quality Study**
- Jay Turner, Ph.D. Washington University

III. **Jefferson County Non-Attainment Area Plan for Sulfur Dioxide (SO_2) Standard**
- Emily Wilbur, Missouri Department of Natural Resources

IV. **American Fuel Group Report**
- St. Louis Regional Clean Cities Program

V. **Update Activities of the States**
- Illinois Environmental Protection Agency
- Missouri Department of Natural Resources

VI. **Other Business -** Next Meeting Date June 23, 2015

VII. **Adjournment**

*Please note that this meeting will serve as a part of the Inter-Agency Consultation Process as detailed in the Missouri Transportation Conformity SIP.

MINUTES
AIR QUALITY ADVISORY COMMITTEE
Tuesday, March 24, 2015
East-West Gateway Board Room

Members Present:
Michael Coulson, Chair, East-West Gateway Council of Governments
Joe Winkelmann - Missouri Department of Natural Resources
Mike Henderson - Missouri Department of Transportation
David Bloomberg - Illinois Environmental Protection Agency (telephone)
Christopher Schmidt - Illinois Department of Transportation
Jack Fishman - St. Louis University
Susannah Fuchs - American Lung Association
Betsy Tracy - Federal Highway Administration, Illinois
Jeanine Arrighi - City of St. Louis Department of Health

Others Present:
Kevin Herdler - St. Louis Regional Clean Cities
Heather Hamilton - U.S. Environmental Protection Agency Region 7
David Shanks - Boeing
Jason Welsh - St. Louis University
Lenora Fisher - Citizens for Modern Transit
Curtis Jones - Illinois Department of Transportation
Rafael Gonzalez - Madison County Transit/RideFinders (telephone)
Leanne Tippett Mosby - Missouri Department of Natural Resources, Division of Environmental Quality
Linda Wegrzan - Missouri Department of Natural Resources, St. Louis Regional Office
Mike Alesandrini - AECOM

Staff:
Mary Grace Lewandowski John Posey David Wilson Peter Koeppel Carol Lawrence

I. Call to Order
- Michael Coulson, Chair, East-West Gateway Council of Governments

The meeting of the Air Quality Advisory Committee (AQAC) was called to order by Chair Michael Coulson, East-West Gateway Council of Governments (EWG). The minutes of the January 27, 2015 AQAC meeting were approved as circulated. Mr. Coulson, EWG, introduced Leanne Tippett Mosby, Director of the Division of Environmental Quality at the Missouri Department of Natural Resources (MoDNR) and Mike Alesandrini of AECOM (formerly URS).

II. Connected 2045: Long Range Transportation Plan for the St. Louis Region
- Peter Koeppel, East-West Gateway Council of Governments

As the Metropolitan Planning Organization (MPO) for the St. Louis region, East-West Gateway is required to produce a long range (30-year time frame) transportation plan every four years. Staff is currently working on the draft transportation plan. Connected2045 identifies current and future

needs based on population projections and travel demand. In order to receive federal funding, transportation projects must be included in the long range plan. The plan is to be fiscally constrained. Staff has to estimate the amount of funding expected to be reasonably available over the 30 year period. As part of federal policy from MAP-21, the plan has to be performance-based. In order to assess how the transportation system is progressing, the plan has performance measures and targets tied to the goals in the plan. A State of the System report also has been prepared which describes the analysis which went into the development of Connected2045. It contains: population, employment and travel demand forecasts; detailed look at all elements of the transportation system; transportation investment plan; financial capacity analysis; project evaluation framework; and the public engagement process utilized in the development of Connected2045.

EWG hosted a four-part speaker series in partnership with the Missouri History Museum on a number of transportation topics relevant to the region. The first session looked at the history of transportation in the St. Louis area and the second examined the current and future regional economy. The topic of the third session was future transportation technology. The final session was on how to fund transportation going forward from local, state and federal perspective.

The first chapter of Connecte2045 sets the regional context and contains socio-economic information. The second chapter delineates the performance management framework and the ten guiding principles used to develop Connected2045. A fact sheet was developed for each principle with background information, strategies and performance measures. Principles were aligned with federal and state transportation goals. The third chapter presents the investment plan for Connected2045. For Missouri Department of Transportation (MoDOT), Illinois Department of Transportation (IDOT) and METRO (transit), information is presented on revenue, preservation/operations cost, balance remaining for new projects and major project costs. When know what funding is available, then can see which projects can be funded and identify them in the plan. The states and METRO face a financial challenge going forward. Also listed in Connected2045 are illustrative projects for which no funding source has been identified but could occur if funding became available. Corridor study locations are also noted. These are areas warranting future study. The last chapter of Connected2045 addresses transportation air quality conformity determination. Mr. Coulson, EWG, reported that the conformity determination has just been completed and it demonstrates that the proposed transportation system will not produce emissions greater than the motor vehicle emissions budgets set by both states. There is still some final editing to do. The draft conformity determination will go out with the draft Connected2045 for public review.

There will be at least a 30 day comment period. Two traditional open-house style meetings have been planned for May and there will be two online open houses hosted by the St. Louis Post-Dispatch. The plan is to be adopted by the EWG Board of Directors at their June meeting.

III Ozone Trends in St. Louis: Dirty Air is Getting Cleaner but Clean Air is Getting Dirtier - Jason Welsh, St. Louis University

The National Aeronautic and Space Administration (NASA) Air Quality Applied Sciences Team (AQAST) helped fund this research project. This study examined the trends of ozone concentrations in the background troposphere and analysis of ozone data for the St. Louis area. In many urban areas in the U.S. the air quality situation is improving. From 1980 - 2010 the national ozone

concentration average has decreased 28 percent. A similar downward trend can be seen for St. Louis area. If look at the total number of exceedances each year over time since 1980, find that high ozone events in Missouri have decreased. However, when the number of exceedances from sites downwind of the City of St. Louis are reviewed, find that there are more exceedances at sites in Madison County than in St. Louis. This finding is consistent with what would be expected since the highest ozone concentrations are typically found downwind of the source region.

From 1980-2012 for the St. Louis area, the trend of the 4th highest seasonal ozone concentration average shows a 15 percent decline which is consistent with the national trend. However, when all the data from the St. Louis area monitor sites is analyzed, there is a slight increase in ozone concentration. This trend seems to be inconsistent with the trend for the 4th highest daily maximum average. The 4th highest average is used by USEPA to determine effectiveness of ozone reduction strategies. Paradoxically, there is considerable evidence that ozone concentrations in the non-urban atmosphere are increasing. A 1994 study of measurements taken over western Europe from 1875 to 1993 showed that there was an increase in global levels of ozone by a factor of five ever since the start of the 20th century. Another study in 2009 looked at ozone levels at the west coast of the U.S. and found that background levels of Ozone are still increasing.

Starting with the one-hour ozone values for each month in the St. Louis region, daily eight-hour averages were computed for an entire month. The six highest and six lowest eight-hour averages were identified for each month since 1980. The highest eight-hour averages were averaged and plotted as a function of years. Total exceedances of the eight-hour ozone standard for a year were graphed. When the values for May through October are compared to June through August, the June through August values are enhanced for downward and upward trends when a smaller data set is used. June through August reflects the ozone trends during the time that vegetation most actively grows. Local ozone levels are decreasing while background levels are increasing. When ozone concentrations go above 40 parts per billion (ppb), will see a decrease in crop yields. Overall, leaf damage not only has devastating aesthetic consequence for parks and recreational facilities nationwide but on agriculture as well. Independent trend analysis was performed for data from Missouri and Illinois monitoring stations. For Missouri, high ozone values are declining at a rate of -0.15 ppb/year whereas background level is increasing by +0.21 ppb/year. This is greater than the clean air trend of all the data in the metropolitan St. Louis area. Therefore if Missouri air is not being affected by pollution and represents background air, then background ozone level has increased by nearly eight percent since 1980. For Illinois, the highest ozone values are decreasing by -0.21 ppb which is higher than the downward trend for all the data (-0.165 ppb) for the St. Louis area. Ozone exposure to crops has increased since 1980.

In conclusion, U.S. air quality exceedances of the ozone standard have been on the decline since 1980. In the St. Louis metropolitan area, there are more exceedances downwind in Madison County than in the City of St. Louis. High ozone concentrations are decreasing but we see increases in background ozone concentrations. As a result, this has a huge impact upon agriculture as plants can be susceptible to ozone damage.

Dr. Fishman, SLU, observed that it is not the exceedances to be concerned about globally but the general change in the background levels of ozone. USEPA has done a good job of reducing air pollution. Modeling indicates that this increase is the result of long range transport from east Asia.

Mr. Winkelmann, Missouri Department of Natural Resources (MoDNR), asked if Dr. Fishman had submitted comments on USEPA's proposed primary and secondary ozone standards as scientific evidence is important to their review. He added that USEPA viewed the 4th highest eight-hour ozone average as a good surrogate for overall exposure. Mr. Coulson, EWG, said that use of the 4th highest average was a way to dampen out the effects of weather.

IV Clean Communities: A Metro East Green Guide
- Susannah Fuchs, American Lung Association

Representatives from Metro East health agencies, air stakeholder groups, counties, American Lung Association, universities and the Metro East Community Air Project (MECAP) worked several years to assemble information resources (general and local) for a variety of environmental issues. The Metro East Green Guide is available in print and electronically. Ms. Funk is no longer working on MECAP and has a new position at University of Illinois Extension working on an asthma/indoor air quality trigger project and an obesity study. Funding for MECAP is running out and some of its activities are being picked up by different agencies. Ms. Funk has done a lot of great work and can still be contacted. Ms. Funk was given a sustained round of applause.

V American Fuel Group Report
- Kevin Herdler, St. Louis Regional Clean Cities Program

Clean Diesel grant awards have been announced by USEPA. Six school buses in the DeSoto and Jefferson County school districts will be replaced. The St. Louis Regional Clean Cities Program (SLCC) has been working on legislation to establish incentives for American fuels in Missouri but an appropriation is still needed. SLCC has developed a fee-based fleet assessment tool to assist fleet managers with their entire fleet program including idle reduction, fuel choice/vehicle match-up, emissions and economics. Mr. Herdler will be leading a firefighter and police training session in Springfield MO on alternative fuel vehicles and what to do in the case of an emergency. Work is underway to have statewide first responder training session in St. Louis. For this training effort, SLCC has received grants from Kansas City and from the Federal Emergency Management Agency/University of West Virginia.

Two weeks ago the Inland Waterway Conference met in St. Louis. A 20 percent increase in Mississippi River traffic is anticipated due to Panama Canal expansion. SLCC met with U.S. Army Corps of Engineers, Coast Guard and a number of barge companies to discuss use of liquefied natural gas (LNG) in the future. Companies are building bunkering units to transport LNG. A local company is preparing a request for proposals for three LNG harbor boats.

Mr. Coulson, EWG, asked about electric cars and St. Louis. Mr. Herdler, SLCC, said that Nissan USA is willing to invest to bring in DC fast chargers. SLCC is trying to bring interested people together. The fast chargers would be located at businesses with rapid turnover like convenience stores or fast food restaurants. Trend on the west and east coast is moving away from use of at-home vehicle charger toward DC fast chargers. With a faster charger, a vehicle can be charged up to 80 percent in 15 minutes.

VI Update Activities of the States
- David Bloomberg, Illinois Environmental Protection Agency
- Joe Winkelmann, Missouri Department of Natural Resources

Illinois currently has two sulfur dioxide (SO_2) non-attainment areas in the Pekin area in central Illinois and the other in Lemont in the Chicago area. Illinois Environmental Protection Agency (Illinois EPA) is close to filing with the Illinois Pollution Control Board a statewide SO_2 rule limiting the sulfur content in diesel fuel. It will require use of ultra-low sulfur fuel.

On March 2, 2015, U.S. District Court approved a consent decree between USEPA, Sierra Club and the Natural Resources Defense Council(NRDC). Sierra Club and NRDC had filed suit alleging that USEPA was taking too long with SO_2 designations. With this consent decree, USEPA has sent letters to many of states identifying areas that the states will have to evaluate and submit designation recommendations by September 18, 2015. Illinois has five areas to evaluate and submit designation recommendations under the SO_2 standard.. The Metro East has one area around the Dynegy Wood River power plant in Madison County. Illinois EPA will conduct modeling using actual emissions and make recommendations whether area is in attainment or non-attainment. USEPA will make designations in 2016.

The Missouri Air Conservation Commission (MACC) is meeting on March 28 at the Kansas City Regional Office of the Missouri Department of Natural Resources in Lee's Summit. There will be no public hearings at this meeting. The next MACC meeting will be on April 30 in Jefferson City.

Earlier this year, USEPA has redesignated the St. Louis area to attainment for the 1997 eight-hour ozone standard. This is a big accomplishment which involved a number of people and actions and took many years to achieve. Now MoDNR can focus solely on attaining the 2008 standard. USEPA has indicated that Missouri will not have to prepare a second maintenance plan because of the revocation of the 1997 standard. In 2014, Missouri submitted a Marginal area State Implementation Plan (SIP) for the 2008 eight-hour ozone standard. A recent court decision stated that the states did not have until the end of the 2015 ozone season to demonstrate attainment. According to the Clean Air Act, to demonstrate attainment there must be three full ozone season years of monitoring data from date of designation (July 2012). The attainment year for marginal non-attainment areas, like St. Louis, is July 2015. To demonstrate attainment, Missouri would have to use 2012-2014 data. The St. Louis area would not attain due to 2012 being such a hot summer. Missouri does qualify for a one-year extension of this attainment deadline because the 2014 highest average is 71 ppb below the 2008 standard of 75 ppb. If the 2015 summer is similar to the summers of 2013 and 2014, it is possible that the area could attain the 2008 standard.

Missouri also received a letter from USEPA concerning the SO_2 consent decree. In the St. Louis area, one facility which could potentially be affected is Ameren's Labadie power plant in Franklin County. Analysis will need to be performed to develop designation recommendations for USEPA.

Ms. Tippett-Mosby, MoDNR, reported that the Missouri General Assembly has pending legislation for a Carbon Action Plan (Section111d). MoDNR has been working with members of the General Assembly and representatives from electrical generating utilities. The initial Section111d

stakeholders meeting was in July 2014 but MoDNR is waiting to schedule another stakeholders meeting until after the rule is finalized by USEPA.

MoDNR has begun to plan for USEPA's carbon pollution rule which is anticipated to be release in Summer 2015. MoDNR has been working closely with the Public Service Commission and Department of Economic Development. MoDNR will have to prepare a plan to address state goal of 21 percent reduction in estimated greenhouse gas emissions by 2030. Reduction can be achieved by inside-the-fence-line reduction at electric generating units (EGUs), increase natural gas, energy efficiency or renewable energy. The state has flexibility in the choice of policy options/strategies used to achieve the emissions reduction. Missouri is one of four states which will be participating in the Policy Academy of the National Governors Association (NGA). Missouri will be working with a consultant, Resources for the Future, to model and evaluate different compliance choices. Participating in this NGA project will expand the internal capacity of MoDNR.

Mr. Knott, Sierra Club, asked if the Cross State Air Pollution Rule (CSAPR) would be on the March MACC agenda. Mr. Winkelmann, MoDNR, said that the allotments for 2016 are up for adoption. Anticipate later this year there will be a proposal for long term (2017 and after) allotments rule. Mr. Knott, Sierra Club, then asked if the SO_2 SIPs for Jefferson and Jackson Counties would be presented to the MACC in April. Mr. Winkelmann, MoDNR, said that a new SO_2 rule is expected to be filed with Secretary of State for 30 days public notice in mid April and there would probably be a public hearing in June.

VII Other Business

Ms. Fisher, Citizens for Modern Transport (CMT), announced that the "Great Race" promotional relay race event will be on May 21 highlighting alternative forms of transportation. CMT is planning a celebration of its 30th anniversary in July at the Moonrise Hotel. At this event, CMT will present the results of a study they commissioned on options to finance transit.

Dr. Fishman, SLU, announced that SLU will be hosting the NASA AQAST meeting June 2 - 4. Meeting is open to the public, but registration is required. AQAST is composed of representatives from Universities and federal agencies. The focus of AQAST is on how to utilize NASA products to improve air quality management work. More information is available at www.aqast.org.

Mr. Gonzalez, Madison County Transit/RideFinders, announced that RideFinders has a Clean Air Campaign underway to encourage employers in the region to reserve parking spaces for carpoolers. CitiGroup, Ameren, Wells Fargo and the City of St. Louis also are participating in this effort.

Ms. Arrighi, City of St. Louis, said that the Health Department is starting to review the City's Air Pollution Control ordinance and invited anyone who is interested in this to let her know.

The next meeting of the AQAC was scheduled for May 26, 2015. There being no other business, the meeting of the Air Quality Advisory Committee was adjourned.