



AGENDA
AIR QUALITY ADVISORY COMMITTEE*
TUESDAY, March 26, 2019
10:00 a.m. – 12 noon
East-West Gateway Board Room

Chair
Mark A. Kern
Chairman, St. Clair County Board

Vice Chair
Steve Ehlmann
County Executive
St. Charles County

2nd Vice Chair
Robert Elmore
Chairman, Board of Commissioners
Monroe County

Executive Committee

Tim Brinker
Presiding Commissioner
Franklin County
Dennis Gannon
County Executive
Jefferson County
Lyda Krewson
Mayor, City of St. Louis

Kurt Prenzler
Chairman, Madison County Board
Steve Stenger
County Executive
St. Louis County

Members

Ron Counts
Mayor, City of Arnold
Franklin County
Emeka Jackson-Hicks
Mayor, City of East St. Louis
Reggie Jones
St. Louis County

Mark Kupsky
Vice President,
Southwestern Illinois
Council of Mayors

Norman C. McCourt
Municipal League of Metro St. Louis

Roy Mosley
St. Clair County

Lewis Reed
President, Board of Aldermen
City of St. Louis

Herbert Simmons
President, Southwestern Illinois
Metropolitan & Regional
Planning Commission

Tom Smith
President, Southwestern Illinois
Council of Mayors

Michael Walters
Madison County

John White
St. Charles County

Regional Citizens

Barbara Geisman
C. William Grogan
Richard Kellett
John A. Laker

Non-voting Members

Erin Aleman
Illinois Department of
Transportation

Erika Kennett
Illinois Department of Commerce
and Economic Opportunity

Patrick McKenna
Missouri Department of
Transportation

Taulby Roach
Bi-State Development

Aaron Willard
Missouri Office of Administration

Executive Director

James M. Wild

- I. Call to Order**
 - Carol Lawrence, Chair, East-West Gateway Council of Governments
 - A. Minutes of January 29, 2019 Meeting
- II. VW Settlement Activities**
 - Brad Frost, Illinois Environmental Protection Agency
 - Stacy Allen, Missouri Department of Natural Resources
- III. Connected2045 Update**
 - Peter Koeppel, East-West Gateway Council of Governments
- IV. Air Quality Refresh**
 - East-West Gateway Council of Governments
- V. American Fuel Group Report**
 - St. Louis Regional Clean Cities Program
- VI. Update Activities of the States**
 - Illinois Environmental Protection Agency
 - Missouri Department of Natural Resources
- VII. Other Business – Next Meeting Date May 28, 2019**
- VIII. 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.

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MINUTES
AIR QUALITY ADVISORY COMMITTEE
Tuesday, January 29, 2019
10:00 am – 12:00 pm
East-West Gateway Board Room

Members Present:

Carol Lawrence, Chair – East-West Gateway Council of Governments
Susannah Fuchs – American Lung Association
Mallory Box – Citizens for Modern Transit
Mike Henderson – Missouri Department of Transportation
Stacy Allen – Missouri Department of Natural Resources
Chris Schmidt – Illinois Department of Transportation
Brad McMahon – Federal Highway Administration, Missouri
Betsy Tracy – Federal Highway Administration, Illinois (Telephone)
Andy Knott – Sierra Club
Buzz Asselmeier – Illinois EPA (Telephone)
David Driver – City of St. Louis

Others Present:

Margo Daniels – Missouri Department of Natural Resources
Robert Hilgenbrink – Illinois Green Economy Network
Michael Hutcheson – Ameren
Jed Wolkins – U.S. Environmental Protection Agency Region 7 (Telephone)
Kevin Herdler – St. Louis Clean Cities
Kevin Jemison – Illinois Department of Transportation

Staff:

Mary Grace Lewandowski Aaron Young John Posey Lubna Shoaib Jennifer Vuitel
Maureen McCarthy Brenden Giblin

1. Call to Order

- Carol Lawrence, Chair, East-West Gateway Council of Governments

The meeting of the Air Quality Advisory Committee (AQAC) was called to order by Chair Carol Lawrence, East-West Gateway Council of Governments (EWG). The minutes of the October 30, 2018 AQAC meeting were approved as circulated.

2. Fourth National Climate Assessment

- John Posey, Ph.D., East-West Gateway Council of Governments

The National Climate Assessment is a document that is required by the Global Change Research Act of 1990. It calls upon the administration to perform a quadrennial review of how climate

change is affecting different sectors of American economy and society. This effort is overseen by the U.S. Global Change Research Program (USGCRP), a working group of 14 federal agencies. The fourth National Climate Assessment was released in two volumes; V. 1: Climate Science Special Report and V. 2: Impacts, Risks and Adaptation. The first volume was released in November 2017 with the intention of serving as the scientific base of the second volume.

Volume 1: Climate Science Special Report (CSSR) reported that the annual mean temperatures had risen over almost all of the U.S. In the south between Alabama and Oklahoma there was a slight cooling of the mean temperatures. There is accumulating evidence that cooler temperatures are due to changes in land use in the last century. Maps in the CSSR depict a similar but more wide spread cooling of average temperatures in the summer throughout the Midwest. Agriculture has become more productive with more land covered with crops and increased irrigation which may be contributing to the cooler temperatures. The CSSR uses the years 1901-1960 as a baseline and the comparison period is from 1987-2016. Increases in average annual temperature have been recorded all over the United States. Projections for the mid and late 21st century have been illustrated in maps representing low and high emission scenarios. The higher emission scenario in the late 21st century shows St. Louis in a region that would see an increase in average annual temperature of ten degrees. Another set of maps depicts the projected change in number of days above 90 degrees and number of days below 32 degrees. The baseline time period had about 44.4 days above 90 degrees, and the comparison period had about 46.1 days. Overall the number of days below freezing has decreased across the United States. Changes in precipitation were also determined. Maps show that most of the country over the last century has gotten wetter, while areas in the Southwest and Northwest have gotten drier. In Hannibal, MO on May 1st every year during the baseline period there were 11 days with water levels over the flood stage. Looking at May 1st every year from 1969-2018 there were 25 days over the flood stage. Changes in land use and precipitation patterns have contributed to the increase in flooding.

Volume 2: Impacts, Risks and Adaptation, was released in November 2018. The 29 chapter report covers both national topics and regions of the U.S. and was prepared by 300 authors. Dr. Posey contributed to the Midwest chapter. He discussed six key messages for the Midwest from the Assessment. The first key message for the Midwest is that projected changes in precipitation, coupled with rising extreme temperatures before midcentury, is projected to reduce Midwest agricultural productivity to levels of the 1980s without major technological advances. There is a drying effect of warmer air on plants and soils. Vapor pressure deficit (VPD) is the difference between how much moisture is in the air and the amount of moisture in the air at saturation. Warmer air can maintain more water as vapor, putting more demand for moisture on plants. Through modeling it is shown that warmer conditions will cause an increase in VPD which is one of the factors that will lead to reduced productivity in plants.

The second key message is about forestry. Threats from a changing climate are interacting with existing stressors, such as invasive species and pests, to increase tree mortality and reduce forest productivity. Without adaptive actions, these interactions will result in the loss of economically and culturally important tree species. Forest diversity can increase resilience to climate change effects.

The third key message focuses on biodiversity and ecosystems. Species and ecosystems are typically most at risk when climate stressors, like temperature increases, interact with land-use change, habitat loss, pollution, nutrient inputs, and nonnative invasive species. Climate change is outpacing plants' ability to shift their habitat range. Changes in climate are affecting animal species as well as plants. Warming water temperatures are causing a reduction in suitable habitat for fish for longer periods of time throughout the year. Due to competition for suitable habitat and increasing temperatures, there has been an increase in fish kills in Midwestern inland lakes. Wetland restoration projects are helping to reduce the impacts of climate change on aquatic species.

Human health is the focus of the fourth key message. Climate change is expected to worsen existing health conditions and introduce new health threats due to the increased frequency and intensity of poor air quality days, extreme high temperature events, and heavy rainfalls; extending pollen seasons; and modifying the distribution of disease carrying pests and insects.

The fifth key message is about transportation and infrastructure. Stormwater management systems, transportation networks, and other critical infrastructure are already experiencing impacts from changing precipitation patterns and elevated flood risks. Green infrastructure is reducing some of the negative impacts by using plants and open space to absorb stormwater. There needs to be more awareness of the risk that more major flooding events will occur and create transportation-related problems in more areas. There are many examples of green infrastructure around the Midwest such as street trees which provide important stormwater management and reduce the urban heat island effect. Other major examples of green infrastructure include green roofs, urban woodlands, green walls, and urban agriculture. Another topic in this section is the daylighting of streams. From the 1930s to the 1970s many creeks and streams were put into pipes. Several stormwater management authorities in the Midwest have begun restoring the natural conditions of these streams as a way to improve stormwater management.

The sixth message was about indigenous peoples. Tribal nations are especially vulnerable to climate change because of their reliance on threatened natural resources for their cultural, subsistence, and economic needs. Developing knowledge for decision-making in cooperation with vulnerable communities and tribal nations will help build adaptive capacity and increase resilience.

Chapter 13 of the report addressed air quality. This chapter was written with assistance from other sections of the report such as the human health and forestry chapters. The key messages from the air quality chapter focused on: respiratory and cardiovascular health effects; wildfires; allergic illnesses including asthma and hay fever; and the potential to simultaneously mitigate climate change and improve air quality.

3. Illinois Green Economy Network

- Robert Hilgenbrink, Illinois Green Economy Network

The Illinois Green Economy Network (IGEN) is a consortium of all 39 Illinois community college districts formed in 2008. The mission is to provide a platform for collaboration among all

Illinois community colleges and their partners to drive growth of the green economy. The vision is to see the Illinois community college system become a global leader in transforming the economy and education for a sustainable future. The current focus is on energy and curriculum. IGEN's approach leverages the power of a sustainability network with the deep community connections of individual colleges to expand deployment of clean energy technologies, increase employment opportunities, and foster community engagement. IGEN is led by an administrative team that implements and manages all network initiatives and programs, as well as provides general operations. The administrative team receives strategic direction from and reports to a six member community college Presidents' Steering Committee. The administrative college is Kankakee Community College and the fiscal agent is Lewis and Clark Community College in Godfrey IL.

In the past ten years IGEN has received \$30 million in grants and other funding sources. With these funds, energy-saving measures have been implemented that have resulted in 4,899,566 kWh savings. Seventeen colleges have created fifty certificate and degree programs to provide career pathways to jobs in the green economy. Seventeen renewable energy projects were installed at college campuses or partner facilities totaling 667 kW. There were 500 attendees at the community-based solar market development program that resulted in seven completed installations. Through the Solar for Schools Program 2,000 middle and high school students educated.

The current funding for IGEN comes from an Illinois Secretary of State grant which is being used for education and training for renewable energy and energy efficiency technology, and for the operations of the network. Another source of funding is from a U.S. Department of Energy grant which will go toward expanding the solar workforce through the Illinois community college system. Six Illinois community colleges and three industry partners are participating in the Department of Energy grant efforts.

4. American Fuel Group Report

- Kevin Herdler, St. Louis Regional Clean Cities Program

The American Fuel Group is beginning to collect data for its annual report on fuel reduction and emissions totals. Mr. Herdler attended a biodiesel conference in San Diego where they presented information on the Clean Cities Program. The next big event is the NTA conference in Indianapolis in March 2019. Mr. Herdler is currently working with Mr. Schmidt from the Illinois Department of Transportation on having the I-70 corridor from the east coast to Colorado identified as an alternative fuel corridor. East-West Gateway received a request for a letter of support for the I-70 corridor project. Currently there is one DERA project in progress for which Clean Cities is partnering with the Ozark Clean Air Alliance.

5. Update Activities of the States

- Stacy Allen, Missouri Department of Natural Resources (MoDNR)

The Since the AQAC meeting in October 2018 there has been one Missouri Air Conservation Commission (MACC) met in November 2018. MoDNR's request for redesignation to attainment for the 2012 PM_{2.5} standard for the St. Louis area was adopted. The MACC also adopted 17 rule amendments as a part of the final steps of the red tape reduction efforts at MoDNR. Once the amendments are printed in the state regulations, they will be sent to U.S. EPA for consideration to become permanent rules. The next MACC meeting will be on January 31, 2019 in Jefferson City. There is one item for the public hearing concerning the SIP revision of the infrastructure plan relating to the 2015 ozone standard. The comment period for this proposed revision will close on February 7, 2019. The next MACC meetings will be on March 28, 2019 in Jefferson City and April 23, 2019 in Kansas City.

This spring MoDNR will be working on the Good Neighbor SIP as a part of the 2015 ozone NAAQS. This SIP will demonstrate that Missouri is not negatively impacting air quality in neighboring states. A public hearing is tentatively scheduled for the March 28 MACC meeting and the public comment period may begin at the beginning of February. The re-designation request for the 2012 PM_{2.5} standard has been sent to U.S. EPA.

During summer 2018 MoDNR finalized the plan regarding the Volkswagen Settlement and began announcing project application periods. In fall 2018 there was an application period for school bus replacements and as of January 2019 some of the new school buses are already in place. MoDNR also addressed financially disadvantaged school districts by creating a list of 29 priority school districts. Five were chosen on a lottery basis to receive a new school bus for free. The next application periods opened were for government owned trucks, and transit and shuttle buses. That application period was extended to January 11, 2019. The applications are currently being reviewed.

In November 2018 the Electric Vehicle Infrastructure working group met. It was decided to create three sub groups to better examine the goals, timelines, barriers, and the process to acquire proposals and bids. Electrify America, another group involved in the VW settlement, has already installed three charging stations on I-44 between St. Louis and Springfield. Electrify America is also working on stations between St. Louis and Kansas City along I-70.

- Buzz Asselmeier, Illinois Environmental Protection Agency

IEPA has submitted their re-designation to attainment request for the 1997 PM_{2.5} standard to EPA Region 5. In addition, IEPA has sent in the Alton SO₂ attainment demonstration SIP.

6. Other Business

The OneSTL Energy and Emissions Working Group has been working with students at the Washington University Sustainability Exchange to conduct a regional greenhouse gas inventory. There are still data that need to be collected from local utilities to create a comprehensive greenhouse gas inventory. Not many greenhouse gas inventories have been done on a regional scale. Over the next year a final draft of the inventory report will be put together and will be vetted by agencies and organizations. On February 15 the working group will have a focus group meeting at the Earthways Center to discuss their future direction and goals. If anyone is interested or knows anyone who would be interested in contributing they can contact Mr. Young.

The OneSTL Sustainability Labs is held on the last Tuesday of the month at T-Rex in downtown St. Louis. Starting in May OneSTL is looking to start satellite sustainability labs in Alton and St. Peters to allow more people to get involved.

7. Adjournment

There being no other business, the meeting was adjourned. The next meeting will be on March 26, 2019.