Chair
Mark A. Kern
Chairman, St. Clair County Board
Vice Chair
Tishaura Jones
Mayor
City of St. Louis
2nd Vice Chair
Tim Brinker
Presiding Commissioner
Franklin County
Executive Committee
Steve Ehlmann
County Executive, St. Charles County
Dennis Gannon
County Executive, Jefferson County
Dennis M. Knobloch
County Board Chairman
Monroe County
Dr. Sam Page
County Executive, St. Louis County
Kurt Prenzler
Chairman
Madison County Board
Members
Honorable Rita Heard Days
Councilwoman, 1st Council District
St. Louis County
Mike Elam
Councilman, District 3
St. Charles County
Megan Green
President, Board of Aldermen
City of St. Louis
Michelle Harris
President
Municipal League of Metro St. Louis
Roy Mosley
St. Clair County
Charles Powell III
Mayor, City of East St. Louis
Herb Roach
Vice President, Southwestern Illinois
Council of Mayors
David Schwind
Madison County
Herbert Simmons
President, Southwestern Illinois
Metropolitan & Regional
Planning Commission
Seth Speiser
President, Southwestern Illinois
Council of Mayors
Donald R. Summers, Jr.
St. Louis County
Regional Citizens
Barbara Geisman
C. William Grogan
John A. Laker
Ron Williams
Non-voting Members
Holly Bieneman
Illinois Department of Transportation
Vacant
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

EAST-WEST GATEWAY
Council of Governments
Creating Solutions Across Jurisdictional Boundaries

AGENDA
AIR QUALITY ADVISORY COMMITTEE*
TUESDAY, June 27, 2023
10:00 – 11:30 a.m.
In Person at East-West Gateway and Virtual

Please join my meeting from your computer, tablet or smartphone.
https://meet.goto.com/421012605

You can also dial in using your phone.
United States: +1 (872) 240-3212

Access Code: 421-012-605

I. Call to Order
- Carol Lawrence, Chair, East-West Gateway Council of Governments
  A. Minutes of the May 30, 2023 Meeting

II. The Launch of TEMPO (Tropospheric Emissions: Measurement of Polltion), April 7, 2023: NASA's First Mission Primarily Devoted to the Improvement of U.S. Air Quality
- Dr. Jack Fishman, Saint Louis University

III. St. Louis Regional Clean Air Partnership 2023 Activities
- Susannah Fuchs, American Lung Association

IV. American Fuels 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 will be on August 29, 2023

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.

Gateway Tower
One Memorial Drive, Suite 1600
St. Louis, MO 63102-2451

314-421-4220
618-274-2750
Fax 314-231-6120

webmaster@ewgateway.org
www.ewgateway.org

MINUTES
AIR QUALITY ADVISORY COMMITTEE
Tuesday, May 30, 2023
10:00 am – 11:30 am
VIRTUAL AND IN PERSON MEETING

Members Present:
Carol Lawrence, Chair – East-West Gateway Council of Governments
Mike Henderson – Missouri Department of Transportation
Kevin Jemison – Illinois Department of Transportation
Susannah Fuchs – American Lung Association
Christopher Schmidt – Illinois Department of Transportation
Rory Davis – Illinois Environmental Protection Agency
Betsy Tracy – Federal Highway Administration, Illinois
Tom Caldwell – Illinois Department of Transportation
Dan Weitkamp – Federal Highway Administration, Missouri
Aaron Basham – Missouri Department of Natural Resources

Others Present:
Stacy Allen - Ameren
Michael Hutcheson - Ameren
Cecelie Cochran – Federal Highway Administration, Missouri
Jason Heitman – Environmental Protection Agency Region 7
Torrey Taylor
Beth Gutzler – Metropolitan Congregations United
Karen Rothery – Valley Park Sacred Heart Green Team

Staff:
Mary Grace Lewandowski, Aaron Young, Jennifer Vuitel, Anna Chott, Paul Hubbman, James Kelly, Saranya Konala, Maureen McCarthy

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 March 28, 2023 AQAC meeting were approved as circulated.

2. Metropolitan Congregations United's Air Quality Efforts and Projects

- Beth Gutzler, Metropolitan Congregations United

Metropolitan Congregations United (MCU) received a grant from the Missouri Foundation for Health to do a community based air quality monitoring program focusing on particulate matter (PM) pollution on the Missouri side of the metropolitan region. When the grant was being planned, a partnership was formed between multiple groups including the Washington University Environmental Studies Department, The Nature Conservancy, the Sierra Club, Washington University Turner Lab, and others. Much of the interest in obtaining a grant came out of the 2019 Environmental Racism Report from Washington University. However, it was determined that there needed to be more community involvement to build on its findings. The goals for community based air quality monitoring were to fill the air quality data gap present in north and south St. Louis and to promote Environmental Justice (EJ) in order to achieve health equity by addressing air quality. The Environmental Racism Report outlines air quality as one of the leading urban environmental challenges. To connect with the community through MCU there have been public meetings and canvasing to share the air quality monitoring efforts.

Below is a map of where their $PM_{2.5}$ monitors are currently located. As of June 30th, 2023 MCU will have an entire year of data collected.

The goal is to see how PM concentrations vary spatially and temporally in the St. Louis region. Being able to locate the sensors at congregations will allow us to see if there is a hyper local spatial variation within certain neighborhood areas in north and south St. Louis.

This work is being done with QuantAQ technology, which is recommended by the Environmental Protection Agency (EPA) to make sure the data stays consistent. So far the data trends have shown that $PM_{2.5}$ levels are the highest in the fall, then winter, summer and spring. Based on an hourly average of $PM_{2.5}$ levels it was found that the highest concentrations were occurring overnight due to the pollutants in the air settling. When this data was shared with community members, it caused many of them to want to learn more about air quality and what they can do to avoid higher pollution levels. A case study is being done at St. Ann Parish in Normandy, MO to look more closely at why this monitoring site has had the highest number of red days. The study has sparked conversations within that community about what may be causing the high levels and what are actions they can take to reduce the pollution. Citizen science projects such as this has been a great way to get more people involved and more informed about air quality.

Data collected from all the sites has shown so far that most of the sites are trending the same way. The study being done by Dr. Turner's lab won't be released until July or August, but the preliminary data shows that there have been mostly green days for $PM_{2.5}$. This has led MCU to wonder why there have been reported breathing issues amongst the parishioners if $PM_{2.5}$ is not the likely cause.

Karen Rothery, a member from the Sacred Heart Green Team in Valley Park, MO, shared how being a part of MCU's AirWatchSTL has led to action in her community. On January 17th, 2023, an organization called The Valley Park Properties, LLC, presented to the Valley Park Planning and Zoning Committee. They were requesting a conditional use permit at 65 Shady Lane in Valley Park with the intent to lease this site to allow a waste to energy plant described as a type of green energy electrical generation plant. Incinerating the waste is supposed to be an alternative to using landfills. By law, the zoning and planning committee is required to hold a public hearing on use of this property, and it was announced on the Valley Park Governments' website to be on Monday, February 3rd. Community members were informed of this plan due to the vigilance of a valley park citizen, Laura Clark, who used the website NextDoor to alert Valley Park citizens of this possible lease action. Concerned citizens researched and submitted reports on neighborhood community websites which became a source for everyone to learn about what type of plant this would be.

It has serious consequences, such as possible air and water contamination. The proposed location for this plant is close to the Meramec River. It was also discovered that there is a possibility of toxic emissions being released into the air. Citizens of Valley

Park and surrounding towns were encouraged to attend the February 3rd meeting. Typically only two or three people attend these meetings, but over 100 individuals attended that Valley Park City Hall gathering. The large crowd caused the presenter to rescind the permit request. This shows the power of rallying members of a community to speak up for their wants and needs.

Ms. Gutzler stated that as a result of community outreach efforts, over 500 people have signed Air Quality Reform Petitions since May 2022. Individuals have provided statements at the MCU's Gamaliel affiliate announced environmental justice as one of their priorities in December 2022. So far there have been twelve public air quality meetings that range from small groups to public meetings. MCU leaders grew the original work and continue to do so by engaging in citizen science efforts from purple air monitoring installation to social media content creation.

3. Connected 2050: Long-Range Transportation Plan for the St. Louis Region

- Saranya Konala, East-West Gateway Council of Governments

The draft of Connected 2050 will be available for public comment through June 7. It will then be presented to the Board of Directors for approval in June. Connected 2050 represents East-West Gateway's vision and priorities for the St. Louis transportation system through the year 2050. The plan includes priorities for highways, bridges, public transit, and bicycle and pedestrian routes. One of the key elements of the plan is to balance technical needs, budgetary constraints, and public desires. This plan is updated every four years and should be thought of as a living document.

There are four documents associated with Connected 2050. The first is the Transportation Equity Assessment, which is not officially part of the long-range transportation plan (LRTP). Its purpose is to provide an objective assessment of transportation disparities in the region and help influence the content of Connected 2050. The second document, the LRTP, is the main document of the plan and focuses on defining the regional transportation policy. The third document, The State of the System, is a technical supplement to Connected 2050 and contains all of the data analysis behind the main LRTP document. The fourth document is the Air Quality Conformity Determination and Documentation which provides the conformity determination for the plans and projects proposed in the LRTP.

Connected 2050 presents a new set of guiding principles to guide transportation decision making going into the future. These principles were developed based on an extensive public and stakeholder engagement process in 2022 and were approved by the East-West Gateway Board of Directors in October of 2022. The principles were broken into three tiers: Our

Communities and Regions, Our Transportation System, and Our Process. The principle that encompasses air quality is the Healthy and Sustainable Environment principle. As a result of the comprehensive community engagement last summer it was revealed that the second highest item people want to have addressed for a healthier environment is reducing air pollution from vehicles.

Information on air quality in the region can be found in all of the documents. A lot of the analysis in all of the documents is presented in terms of six different transportation equity populations: minorities, persons in poverty, persons with a disability, seniors, no vehicle households, and those with limited English proficiency. Members of these populations live all over the East-West Gateway region. Within the Transportation Equity Analysis transportation pollution and environmental hazards were analyzed using three different metrics: traffic proximity, diesel particulate matte emissions, and asthma. These metrics were tracked as a part of the Climate and Economic Justice Screening Tool and the U.S. Environmental Protection Agency Environmental Justice Mapping and Screening Tool.

Traffic proximity measures how close people live to major roads. It has been found that a higher percentage of all six transportation equity populations live in high traffic areas than non-transportation equity populations. Diesel particulate matter is particulate matter emitted from diesel engines. The highest concentrations of these emissions are located along the interstates with high traffic volumes. An interesting finding is that individuals in no-vehicle households are 1.86 times more likely than individuals with a vehicle to live in a high diesel particulate matter tract. Asthma prevalence in adults is just one of the measures of health outcomes associated with traffic proximity or exposure to pollutants. Allergies, genetics, and poor indoor air quality also affect this metric. People who live in poverty are 2.87 times more likely than those with incomes above the poverty level to live in high asthma tracts.

The LRTP also tracks regional transportation system performance which includes about 40 performance measures across different types of categories such as safety. Twenty-five of these measures are federally required and three focus on transportation disparities. Several measures are related to air quality. The first is the annual days above the “unhealthy for sensitive groups” level on the EPA-developed Air Quality Index (AQI). The second is the VOC and NO_x emissions reductions from transportation projects and the third looks at transportation disparities. Transportation disparity is rated on a scale of 0 to 100, with 100 indicated no discernable disparity and the St. Louis region has a score of 54.

A key element of the LRTP is the investment priority projects. Project selection begins with project submissions from the Illinois Department of Transportation (IDOT), Missouri Department of Transportation (MoDOT), and Metro St. Louis. The projects were e evaluated with eight different guiding principles that each have about three different criteria within them. Under the Healthy and Sustainable Environment principle there is a project measure that looks

at if a project improves air quality or reduces greenhouse gas emissions. Within the Choices and Access for All principle it is determined if projects improve transit, walking, biking, or support alternatives to driving such as carpooling. The submitted projects undergo a preliminary evaluation to see which ones rate well across all of the guiding principles. After the projects were chosen an investment priority project list was developed. These projects were split into three tiers. Tier one includes projects that are planned for the years 2024 – 2030, tier two is for 2031 – 2040, and tier 3 is 2041 – 2050.

The projects were then put through the Air Quality Conformity Determination process to make sure they do not increase the level of emissions in the region to a point that the air quality standard is violated. Currently the region is in non-attainment for the 2015 ozone standard and in maintenance for the 2008 ozone standard. It was found that Connected 2050 is in conformity of the air quality standards.

4. Air Quality and Conformity 101

- Carol Lawrence, East-West Gateway Council of Governments
- Maureen McCarthy, East-West Gateway Council of Governments

Ozone is formed when VOCs and NO_x emissions from vehicles and industry react chemically with oxygen in the lower atmosphere. Ozone formation is heavily influenced by the weather. Temperatures of 85 degrees or higher, direct sunlight, and low wind all contribute to high ozone levels. Ozone is carried by the wind and moves into and out of the St. Louis region and so there are monitors placed just outside of the non-attainment area that track the movement of ozone.

East-West Gateway (EWG) works on air quality issues with the Missouri Department of Natural Resources (MoDNR), the Illinois Environmental Protection Agency (IEPA), MoDOT, and IDOT to help reduce transportation related air pollution in the region. EWG leads the Ozone Data Sharing Project. We track the ozone data in the EWG counties in Missouri and Illinois from 9 am – 9 pm each day during the ozone season which runs from March 1st to October 31st each year. That data is combined and distributed to the EWG partners in each state and EPA Region 7. In addition, EWG hosts the Air Quality Advisory Committee and conduct the Air Quality Conformity Determination for the LRTP and Transportation Improvement Program (TIP).

The ozone monitoring network is made up of six monitors in Missouri and four monitors in Illinois that are within the non-attainment area. The non-attainment area is made up of all of the counties in the EWG region and Bowles Township in Franklin County, MO. The monitors that sit just outside that area are called the transport tracking monitors. So far this season there have been several really bad air quality days. On May 24th all of the monitors except Bonne Terre recorded an exceedance. On May 28th and 29th the air quality was orange on the EPA-developed AQI scale, which is a color coded scale that indicates different levels of health

concerns associated with air quality. EWG creates monthly AQI graphs that provide a visual representation of the air quality over an entire month. The first ozone standard was set in 1979 and then strengthened in 1997, 2008, and 2015 which is the current standard in use. In November 2022 the St. Louis region was reclassified from marginal to moderate non-attainment for the 2015 ozone standard. This was based on the 2018 to 2020 monitoring data that indicated the region failed to attain the standard by August 3, 2021. St. Louis was one of 22 other regions in the country that were reclassified.

The St. Louis region is in maintenance for the 2008 standard which has not yet been revoked. The region is in attainment for the annual $PM_{2.5}$ standard.

Each ozone non-attainment area is designated as marginal, moderate, serious, severe, or extreme. The requirements for marginal and moderate non-attainment areas can be seen below.

- **Requirements unique to Marginal area**
- Conduct emissions inventory
- Have major point sources (100 tpy) report their emissions annually
- New Source Review (NSR) permit program for new or modified existing point sources
- NSR offset rate for new major point sources is reduction of 1.1 tons existing emissions for every 1 ton of new emissions
- 2018 - 2020 monitoring data to show attainment for all monitors
- Attainment date – August 3, 2021

- **Requirements unique to Moderate areas**
- Marginal planning requirements
- Additional SIPs are to be prepared and examination of current permit process
- Demonstration that I/M program in place meets requirements of a Basic I/M program
- Contingency measures for failure to attain
- NSR offset rate for new major sources of 1.15 tons of existing emissions for every 1 ton of new emissions (up from 1.1 tons)
- 2021 – 2023 monitoring data to show attainment for all monitors
- Attainment date – August 3, 2024

There is a multi-faceted approach to improving ozone levels. Actions that can help include vehicle technology improvements, cleaner burning gasoline, vehicle emissions testing programs, transportation projects that reduce congestion, ridesharing programs, individual decisions, and controls on industry.

Transportation Air Quality Conformity is done both for the LRTP and TIP. The process requires projects to be analyzed to determine that they meet the requirements of state ozone plans and do not worsen air quality. This is designed to make sure that federal transportation investment is consistent with goals contained in Missouri and Illinois State Implementation Plans (SIPs) to achieve/maintain ozone standards. The process comes from the EPA Conformity Regulations,

40 CFR Part 93 and is conducted by EWG staff with assistance from the Inter Agency Consultation Group. The final conformity determination is made by the Federal Highway Administration and Federal Transit Administration.

Computer modeling is used to evaluate and document the impact of proposed transportation activities contained in the TIP and LRTP. Modeling is done for the 2008 and 2015 ozone standards. For each of the years selected to be analyzed the estimated VOC and NO_x emissions from the projects in the LRTP and TIP have to be less than or equal to the Missouri and Illinois emissions budgets. The process and findings of the conformity determination are documented and go out for public comment along with the draft LRTP or TIP. The documents will then be presented to the EWG Board of Directors for approval.

More information can be found on the EWG website as well as all of the EWG partner's websites.

5. Update on Activities of the States

- Rory Davis, Illinois Environmental Protection Agency

IEPA is preparing the attainment demonstrations for the moderate ozone areas of Chicago and St. Louis and IEPA is working to get them out for public notice soon. Illinois has developed new motor vehicle emission budgets that will be a part of the attainment demonstration. Plan to do consultation shortly.

IEPA is also working on their regional haze plan and is in consultation with federal land managers.

IEPA is also looking at various measures to control NO_x and VOCs emissions in the Chicago and St. Louis areas. Certainly transportation measures like electrification are helpful for that. The state is working on a reasonably achievable control technology rule for certain emission sources such as turbines and engines found in stationary pollution sources. The state is also looking at lawn and garden equipment and other small sources as well.

- Aaron Basham, Missouri Department of Natural Resources

- St. Louis Ozone moderate plan - working with East-West Gateway (EWGW) to develop the motor vehicle budgets for the Attainment Demonstration and reasonable further progress (RFP) components, working in-house on all the other planning requirements. It's possible that the Attainment Demonstration can be posted in time for a July public hearing (if so, need to post by June 26).

- Last Missouri Air Conservation Commission (MACC) meeting – May 25th. No public hearing or adoption items. Staff provided a statewide emissions and monitoring trends report. Also, there are several items of interest in the Director's report – this report is on the MACC webpage. Topics of interest included permit website enhancements, response to Metropolitan Congregation United (MCU) petition on monitoring enhancements, fee stakeholder meetings, and EPA's Geospatial Measurement of Air Pollution (GMAP) monitoring study in St. Louis.

- Next MACC meeting is July 27 in Jefferson City. No public hearing scheduled yet, but it is possible there could be the hearing on the moderate St. Louis ozone nonattainment plan. No adoption items scheduled.

- Inflation Reduction Act (IRA) - Climate Pollution Reduction Grants (CPRG) – MoDNR submitted their work plan and budget prior to the May 30 deadline. Awaiting EPA approval. The overall goal is to be inclusive and ensure any project an entity may want to apply for under the implementation phase will be covered in Missouri's Preliminary Climate Action Plan (PCAP), which is due March 1, 2024. MoDNR plans to hold several outreach meetings across the state to solicit input and educate the public. We understand that EWG submitted their Notice of Intent to Participate in the metropolitan area funding pool as the lead agency for St. Louis.

- The PM – Branch Street monitor in the City of St. Louis has measured several exceedances of the PM10 standard over the last two years. Our monitoring group conducted a site evaluation and noted two concerns about satisfying regulatory siting criteria, which have changed since the site was first installed. MoDNR is working with EPA to assess the citing criteria issues.

- Inflation Reduction Act (IRA) Monitoring Grant – Our monitoring group submitted a work plan for a grant under the IRA to add a temporary air toxics monitoring site in Kansas City (similar to the Blair Street site in St. Louis). We also have a research project on low and middle scale air quality monitors to assess cost, reliability, data quality, quality assurance procedures, maintenance costs and procedures, and potential uses. Depending on the results of the study it could lead to lower costs for an expanded network.

- Ozone NAAQS Reconsideration – Clean Air Science Advisory Committee (CASAC) drafted a response to EPA's 2nd draft policy assessment and in it recommended EPA lower the primary ozone standard from 70 ppb to within 55-60 ppb. They also recommend EPA set a distinct secondary standard based on the W-126 index.

- On May 23 EPA proposed new GHG requirements for power plants. MoDNR is looking into this proposed rule and determining whether to submit comments by the July 24 deadline.

6. Other Business

7. Adjournment

The next meeting will be on June 27, 2023. There being no other business, the meeting was adjourned.