

AGENDA
AIR QUALITY ADVISORY COMMITTEE*
TUESDAY June 25, 2013
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 April 23, 2013 Meeting

- II. Air Quality and Global Climate Change**
 - Mark Hildebrandt, Ph.D., Southern Illinois University Edwardsville

- III. Near-Roadway NO₂ Monitoring Network**
 - Stephen Hall, Missouri Department of Natural Resources

- IV. RideFinder's School Pool Initiative**
 - Laura Barton, Ride Finders

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

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

- VII. Other Business** - Next meeting date July 30, 2013

- 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.

MINUTES
AIR QUALITY ADVISORY COMMITTEE
Tuesday, April 23, 2013
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
Mike Zlatic - St. Louis County Health Department
Betsy Tracy - Federal Highway Administration, IL
Bruce Carmitchel - Illinois Department of Transportation
David Bloomberg - Illinois Environmental Protection Agency
Susannah Fuchs - American Lung Association

Others Present:

Jim Stack - Illinois Department of Transportation, District 8
Joe Gray - Illinois Department of Transportation, District 8
Amy Funk - Metro East Community Air Project
Bob Klepper - Missouri Coalition for the Environment
Kathy Andria - American Bottom Conservancy
Bryan Kresak - U.S. Steel
Christopher Schmidt - Illinois Department of Transportation
Kelley Belina - St. Louis University
Jack Fishman - St. Louis University
Jennifer Meyer - St. Clair County Health Department

Staff:

David Wilson 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 (EWGCOG). Ms. Andria, American Bottom Conservancy (ABC), asked that the March minutes be revised to state that USEPA is proposing to require the Veolia hazardous waste incinerator in Sauget to install a multi-metals continuous emissions monitoring system (CEMS) on one unit for one year. ABC recommended that CEMS be installed on all three units at the facility as if CEMS is put on one unit, there is potential that other units could be used to exceed the limits. Corrections to the minutes of the March 26, 2013 AQAC meeting were approved as circulated.

II. One STL: Many Communities, One Future - Regional Plan for Sustainable Development - David Wilson, East-West Gateway Council of Governments

In October 2010 EWG and its Consortium partners received a \$4.78 million Regional Sustainable Community Planning grants from the U.S. Department of Housing and Urban Development (HUD). Over 180 people have participated in four standing committees and associated subcommittees and work groups. This is one of the most ambitious planning efforts undertaken by EWG in that it has to be completed in a 2 1/2 year time span. Starting in 2012, the partnership has hosted 33 public meetings in 11 different Community Planning Areas in the region. These CPAs were chosen based on level of interest of local government officials and was an attempt to have a broad cross section of the different types of communities in the region. The plan is to be called “One STL: Many Communities, One Future”. One STL advances a prosperous, healthy and vibrant future for St. Louis communities and the entire region including economic development in the context of clean air and water, wise land use and energy efficiency. The deadline for the plan to be completed is December 13, 2013. After this date, implementation is to start.

The draft plan is to be completed by the end of July. Open houses will be held in August and September. In September, the draft will be presented to the EWG Board of Directors. The Board is to adopt the final plan in October. The morning of the November 2013 EWG Annual Meeting, there will be several workshops concerning OneSTL.

The Consortium partners have been identifying what can be addressed at a regional scale and working to build support for a regional approach. OneSTL can set a comprehensive but flexible framework for voluntary participation at various levels by local municipalities. It is a voluntary plan and do not have the authority to mandate anything. It will delineate policies, projects, partners and ways to track progress. The plan will spell out: vision; value statements; approach and guiding principles; goals, objectives and strategies; and implementation plan. Right now, the implementation plan will identify things that EWG will be able to do. Still to determine is to what degree the plan identifies elements of implementation that may be performed by others. Once adopted, will need to keep strengthening leadership and provide long term viability.

The St. Louis region is many connected communities at the confluence of two great rivers, sharing one prosperous, healthy, and vibrant future. Together we will build an inclusive and opportunity-rich region that embraces our unique heritage, geography, and diverse communities. Highlighted regional positives include: central location in the Midwest and the nation as key to building a prosperous future in the global economy; rivers as the foundation of our rich agricultural productivity, biodiversity, geography and trade; individual and interdependent communities; and diverse, educated and talented population. For now and future generations want to: create high quality, healthy communities for all residents; maintain a high quality environment; and support a robust economy and opportunities for all people in the region.

Themes were heard at the public meetings were used to formulate OneSTL goals. Regional goals address interest for: greater collaboration and connectedness; prosperous or resilient economy; everyone in region being reached with that prosperity; acknowledging uniqueness/distinctive

communities; education; green (air, water, land use); efficient (energy and resiliency); and preparedness (refers to safety: from crime; on street for pedestrian; from flood risk). Copies of the draft OneSTL goals and objectives were distributed.

The Applied Research Consortium (collaboration of St. Louis University, University of Missouri-St. Louis and Southern Illinois University at Edwardsville) is developing a regional web-based data sharing portal (<http://stlousdata.org>). The data portal contains GIS-based regional mapping data provided by EWG and local GIS users can share their data. A 30 member volunteer work group has assembled a web-based tool kit containing information on 100 different management practices that a local government could utilize.

Mr. Zlatic, St. Louis County Department of Health, asked who was the point of contact for St. Louis County. Mr. Wilson, EWG, said that the staff from the Department of Planning have been actively involved in this effort and there were four CPAs in the County. The Department of Planning led a study on affordable housing and prepared a document on the review of codes, ordinances and zoning to improve sustainability.

Mr. Coulson, EWG, asked how many CPAs there were. Mr. Wilson, EWG, said there were 11 and they were really more like community engagement areas as did not have the resources to do specific planning at that level. Three public meetings were held in each area. Five communities from these CPAs are going to participate in a pilot study to look at their codes and ordinances in the context of sustainability. They are: O'Fallon, MO; Bellefontaine Neighbors; Alton; Belleville; and Festus. They can act as models for other communities. Mr. Coulson, EWG, asked if the CPA approach diluted the original concept of the project concerning redensifying the urban core. Mr. Wilson, EWG, said that all communities in the region can do a lot to make their own core more walkable and a more attractive place. Communities that are going to be successful over the next 25 to 50 years are those that think pro-actively about creating opportunities to densify their core and make it more walkable.

Ms. Funk, Metro East Community Air Project (MECAP), asked if the study of Transit Oriented Development (TOD) around MetroLink stations would be part of the final plan. Mr. Wilson, EWG, said that this broad, regional survey is part of OneSTL and is funded through the HUD grant. The lead consultant team has selected five stations for an in-depth study of the potential for TOD. In addition, the City of St. Louis is conducting a TOD study around three possible station locations.

Mr. Winkelmann, Missouri Department of Natural Resources (MoDNR), observed that in other parts of Missouri voluntary efforts, including public awareness campaigns, had been effective in meeting air quality objectives. At this level, it is more about giving people more access to different choices in transportation. Choices could happen by building around transit stations, encouraging job development around transit stations and by creating more walkable/bikeable neighborhoods. In this way, address safety and accessibility and serves to reduce auto emissions. Ms. Fuchs, American Lung Association (ALA), said that for last 15 years, her organization, EWG, the Missouri Department of Transportation (MoDOT) and others have been involved in local public awareness campaigns to inform residents about the voluntary actions they can take. Right now the ALA is working with MECAP and RideFinders on a idle reduction campaign.

Ms. Andria, ABC, asked that, in light of climate change and the intense weather events, are there any communities willing to limit development in the floodplain. Mr. Wilson, EWG, said that one item mandated by HUD and USEPA to be addressed in the plan is the issue of climate impact and planning for potential climate change. In every CPA, flooding was identified as an issue.

III. St. Louis University Ozone Garden Project
- Jack Fishman, Ph.D., St. Louis University
- Kelly Belina, St. Louis University

The Ozone Garden Project is an effort to create public awareness of ground level ozone pollution and its effects on plants. Dr. Fishman brought the concept to the St. Louis University (SLU) Center for Environmental Sciences (CES) from his work at the National Aeronautic and Space Administration (NASA). Ms. Belina is the project manager. Last summer an ozone garden was planted near the McDonnell Planetarium at the St. Louis Science Center in Forest Park. The garden contains wild and agricultural plants that are sensitive to ground level ozone pollution. It also has a weather station and an ozone monitor. The ozone monitor and the weather station were obtained from the GO₃ Project in Boulder CO. Hourly ozone levels and weather data is wirelessly transmitted to equipment located inside the Planetarium's communication room. Data on ozone, weather and physical leaf damage is collected and research conducted. Eventually, the aim is to establish a network of ozone gardens around St. Louis area and in other locations.

The concept for ozone gardens came from a 2011 NASA publication entitled "Ozone-Induced Foliar Injury Field Guide. There is an ozone garden in the Great Smokey Mountains National Park containing plants native to the Smokies and another at the Air Quality Learning Center at the Penn State Arboretum. The U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS) branches located at North Carolina State University and the University of Illinois are conducting research on crops and ozone.

Ozone is taken in through the pores (stomata) on the leaves of plants. Ozone reacts with other chemicals and creates reactive molecules which can cause a variety of problems. Plants begin to show symptoms at ozone levels of 40 parts per billion (ppb). Plants become susceptible to diseases and insects and decrease their ability to produce and store food. At high ozone levels, plants experience reduced reproductive capabilities and decrease in yield in crop species. At the end of the ozone season, the cumulative damage to plants can be seen. For example, the milkweed plant is ozone sensitive. Monarch butterflies lay their eggs on milkweed leaves and the caterpillars feed on the leaves. Decreasing the amount of healthy milkweed will affect monarch butterfly population. In 2008 the Royal Society estimated the cost to global agriculture to be between \$14-26 billion. Research has shown that the cost of ozone to the soybean farmers in the U.S. likely exceeds \$1 billion. Dr. Fishman, SLU, added that ozone levels also affect pine forests which impacts the lumber and paper industry.

Last summer was hot and dry (low humidity) with very high ozone levels. Work had to be done to the irrigation system and to manage pests. Overall, everything grew well. Throughout the summer ozone levels were above 40 ppb and average daily maximum ranged between 70-80 ppb. In

September began to see leaf damage on the common milkweed and the ozone sensitive snap beans. The sensitive beans lost more leaves than the ozone tolerant snap beans.

In 2013 plan to add two more ozone gardens at Grant's Farm in St. Louis County and at Southwestern Illinois College in Belleville. The same plant species and monitoring equipment will be at all three sites. New plants include ozone sensitive and ozone tolerant soybeans (seeds donated by University of Illinois researcher), potatoes and yellow crownbeard.

Ms. Andria, ABC, asked what was the cost of the ozone garden. Ms. Belina, SLU, said that the biggest cost was around \$6,000 for the GO_3 Project ozone monitor and weather station. Cost for site preparation, soil, mulch and fencing depends on the site. The seeds were donated. In the future hope to collect seeds from the perennial plants and distribute them to other ozone gardens. Plan to replicate the informative signs prepared by the Science Center and install at the other sites.

IV. St. Louis Regional Clean Air Partnership 2013 Activities - Susannah Fuchs, American Lung Association

On Wednesday, the national American Lung Association will release its State of the Air report. Every county in the U.S. is graded on their ozone and PM2.5 levels based on 2009-2011 monitoring data. The findings are embargoed until tomorrow. For St. Louis, there have been improvements but need to keep doing what are doing and to do more.

The St. Louis Regional Clean Air Partnership (SLRCAP) is focused on voluntary behavior changes on an ongoing basis. Originally, SLRCAP concentrated on voluntary efforts to "shave the peaks" on high ozone days. For 2013, the emphasis is on collaboration and trying to work with existing programs of partner agencies, like St. Louis Earth Day, MECAP and RideFinders. SLRCAP is working with MECAP on their annual Metro East Air Quality Forum. Plan to hold a Missouri-focus forum as part of the September Green Homes and Great Health Festival at the Missouri Botanical Garden. SLRCAP is working with the St. Louis Chamber on their Green Business Challenge and will advise new participants on steps they can take to improve air quality. SLRCAP has generic idle reduction street signs to distribute to those interested. Local quality forecasting begins May 1. Media partner KMOV prepares the forecast and the ALA distributes it to media and interested individuals and groups.

SLRCAP is working with the local U.S. Green Building Council on their Green School Quest initiative. SLRCAP continues to prepare and distribute end of school year "backpack" letters (either paper or electronic) to go home with elementary students describing simple steps parents can take to improve air quality. Approximately 15,000 school children in the metropolitan area receive these letters. SLRCAP is also sponsoring a children's bookmark contest.

On May 30, Ms. Fuchs will be participating in the Citizens for Modern Transit's Great Race to promote different modes of transportation. Team Transit, Team Bike, Team Car Share and Team Carpool will race from the Old Post Office in St. Louis to the Clayton MetroLink station.

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

In the next few weeks Illinois EPA will submit to USEPA Region 5 a draft lead rule for Mayco Industries in Granite City. Mayco has already submitted a construction permit request for the installation of and modification to the capture and control system at the facility so it will be in compliance. They will have to resubmit a modified permit. The rule will be taken to the Illinois Pollution Control Board (IPCB) shortly. The IPCB has scheduled two hearings on the proposed Stage II Vapor Recovery requirements for the Chicago area. The first is on May 8 at the IPCB offices in Springfield and the second is on June 5 at the Michael A. Bilandic Building in Chicago. Information on this docket (R2013-018) is available at the IPCB website (www.ipcb.state.il.us).

Ms. Andria, ABC, asked what Illinois EPA was going to do to assure that there will not be any monitor shutdowns like last year. Mr. Bloomberg, Illinois EPA, said that he would research this. Ms. Lawrence, EWG, said that in 2012 the Alton monitor was offline for 58 days due to equipment vandalism. She added that on April 19 the West Alton monitor was taken offline due to the threat of Mississippi River flooding. There was an extended discussion on monitor siting requirements and the challenges state air agencies face.

The Missouri Air Conservation Commission (MACC) is a seven member executive board that sets the direction of air pollution control in the State of Missouri, adopts rules and approves plan. Currently there are only four members which makes it challenging to have a quorum and keep plans and rules on schedule. Mr. Winkelmann said that if any Missouri residents were interested, they should nominate themselves to the Governor. Ms. Fuchs, ALA, related the experience of a person who was nominated for MACC. When it became apparent that he was not going to be approved by the State Senate, he withdrew his nomination. She observed that it is a very political process. Mr. Winkelmann, MoDNR, added that there is a Missouri statue which states that if an nominated individual is not approved by the State Senate, then that individual is banned for life from serving on any commission in Missouri. So if there is a problem, the Governor's office will ask that person to withdraw their name from consideration.

The next MACC meeting is April 25 in Joplin. The MACC is to adopt revisions to boundary recommendations for the sulfur dioxide (SO₂) standard. Based on the most recent data, Greene County is no longer in violation of the one hour SO₂ standard and should be designated as unclassifiable/attainment. Up for adoption is the Section 110 (of Clean Air Act) Infrastructure State Implementation Plan (SIP) for the 2010 nitrogen dioxide (NO₂) standard. A Section 110 SIP is administrative and demonstrates the State's ability and authority to implement, enforce and maintain the standard throughout that portion of the state that is not classified as non-attainment.

At the May 30 MACC meeting there will be a public hearing on several rules which are out on public notice. There is a proposed revision to the statewide New Source Review (NSR) rule/construction permit to make the state rule in line with USEPA's revision for plant wide applicability limit for greenhouse gas emissions and go along with Step 3 of the greenhouse gas tailoring rule. It will also

remove the USEPA's grandfather provision allowing certain sources to use coarse PM as a surrogate from fine PM during the transition period to PM_{2.5} permitting. Another public hearing topic will be a rule clarification on the control of sulfur emissions from stationary boilers, specifically for brewery industry. There will be a hearing on proposal to rescind an expired rule on control of oxides of nitrogen (NO_x) emissions from upwind sources. Another item will be an amendment to a statewide rule on the control of PM emissions from industrial processes which adds a hierarchy of rule compliance methods. A proposed inventory fee amendment to the Reporting Emission Data, Emissions Fees and Process Information rule is up for hearing. State statute sets the inventory fee structure and requires that the MACC approve it every three years. MoDNR is proposing that the fee remain the same. A rule up for public hearing is a clarification to the Control of NO_x Emissions from Large Stationary Internal Combustion Engines rule to correct the words "a kiln" to "an engine" in subsection (3)(F). Up for public hearing will be revision to Section 110 infrastructure SIP for ozone and revision to Section 110 infrastructure SIP for SO₂. These revisions are administrative in nature.

VI. Other Business

On April 27 there will be a Clean Air Fair at the Greater Mt. Caramel Missionary Baptist Church in the City of St. Louis.

Ms. Funk, MECAP, announced that planning is underway for the third Metro East Air and Health Forum for October 18 at the Caseyville Township Center. If there are suggestions for topics or speakers, contact Ms. Funk at amyfunk@illinois.edu. She introduced Jennifer Meyer who is the Environmental Director at the St. Clair County Department of Public Health.

Mr. Zlatic, St. Louis County, announced that St. Louis County opened a household hazardous waste collection facility at the Metropolitan St. Louis Sewer District (MSD) Lemay wastewater plant. Residents of the City, St. Louis County and Jefferson County can bring in up to 50 pounds of waste free of charge. The Missouri legislature has been debating the elimination of funding for solid waste management districts. Mr. Zlatic's staff is assembling information on administrative costs/percentages for districts and will present this information to the State Senator leading this effort. He added that the National Association of Clean Air Agencies (local and state air pollution agencies) is holding their Spring meeting in St. Louis on May 6-8.

Ms. Andria, ABC, announced that USEPA has extended the comment period until May on the proposed rule to amend regulations concerning excessive emissions during periods of start up, shut down or malfunction at a facility.

The next meeting of the AQAC was scheduled for June 25, 2013. There being no other business, the meeting of the Air Quality Advisory Committee was adjourned.