

AGENDA
AIR QUALITY ADVISORY COMMITTEE*
TUESDAY January 29, 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 October 30, 2012 Meeting

- II. 2012 Particulate Matter National Ambient Air Quality Standard**
 - Missouri Department of Natural Resources

- III. Decommissioning Missouri Stage II Vapor Recovery Program**
 - Joe Winkelmann, Missouri Department of Natural Resources

- IV. Update Metro East Sulfur Dioxide Study and Metro East Citizens Air Project Activities**
 - Amy Funk, Metro East Citizens Air Project

- 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 March 26, 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, October 30, 2012
East-West Gateway Board Room

Members Present:

Michael Coulson, Chair, East-West Gateway Council of Governments
Betsy Tracy - Federal Highway Administration, Illinois (telephone)
Joe Winkelmann - Missouri Department of Natural Resources
Mike Zlatic - St. Louis County Health Department
Mike Rogers - Illinois Environmental Protection Agency (telephone)
Brad McMahon - Federal Highway Administration, Missouri
Ryan Tilley - St. Charles County
Susannah Fuchs - American Lung Association
Jim Stack - Illinois Department of Transportation

Others Present:

Brian Kresak - US Steel
Kevin Herdler - St. Louis Regional Clean Cities Program

Staff:

Jim Wild Steve Nagle David Wilson Carol Lawrence Gary Pondrom

- 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). The minutes of the September 25, 2012 AQAC meeting were approved as circulated.

- II. Poplar Street Bridge Enhancement - The Slide
 Jim Wild - East-West Gateway Council of Governments

About one and one half years ago, the Missouri Department of Transportation (MoDOT) included in their FY 2012-2015 Transportation Improvement Program (TIP) submittal a \$55 million project to reconfigure and reconstruct the I-70, I-44, I-55 and I-64 interchange at the west end of the Poplar Street Bridge (PSB). The ramp from north I-55 to eastbound I-64 would be torn down and rebuilt as a two lane ramp onto the PSB. The ramp from westbound PSB to I-44 west/I-55 south would be rebuilt as a two lane ramp. The ramp from westbound PSB to I-70 west would be rebuilt. The ramp from I-70 east and Memorial Drive to eastbound PSB would be removed and not replaced. Research done as part of MoDOT's New Mississippi River Bridge study indicated that once the new bridge was open there would not be a need for the I-70/Memorial Drive ramp. It also has geometric, safety and speed constraints. In June 2011, the then EWGCOG Board of Directors Chair Kern (St. Clair County Board Chairman) stripped this project out of the FY 2012-2015 TIP. The Chair was

concerned about removal of the I-70/Memorial Drive ramp and the potential elimination of access of truck/freight traffic to communities in the Metro East as well as evening peak congestion on the PSB. The Board suggested that MoDOT and the Illinois Department of Transportation (IDOT) revisit this proposal and develop some options for the Board to consider.

In Spring 2012, MoDOT presented the same project proposal for inclusion in the FY 2013-2016 TIP. At a special meeting of the EWGCOG Board of Directors in May 2012 MoDOT and IDOT presented their research. Six options had been examined and none were found to be satisfactory. Plus, this ramp is in poor condition. The ramp project had the potential to hold up the adoption of the entire TIP (\$2.5 billion in projects) by the EWGCOG Board of Directors. There was concern that if there was not a resolution, \$30 million of the Missouri funding would go elsewhere in Missouri and the \$25 million would go outside of the City of St. Louis. There was concern that there could be a 12 for and 12 against tie vote and the TIP would not be able to go forward. The Board recommended that staff engage a consultant to do an independent review of the PSB/I-55/I-70 interchange project. Due to the independent review, action on the TIP was deferred until September 2012.

HDR Engineering of Kansas City was selected for the review. They were to: review the design options under consideration by MoDOT and IDOT; assess possibilities for other design alternatives not considered by the states; and develop preferred design recommendations and a final report. They were also directed to: identify options to reduce or eliminate the primary causes of congestion on the PSB; examine the feasibility of keeping the I-70/Memorial Drive ramp; and identify options to access IL Route 3. Project funding would remain at \$55 million. After assembling information from MoDOT, IDOT and EWGCOG, HDR held an in-house review of data and the access justification report (AJR). HDR drew on the expertise of their professional staff (bridge engineers, structural engineers, highway engineers, planners, traffic operations, and engineers who have worked with MoDOT and IDOT).

To address the concern about truck access to the Metro East, HDR proposed that a connector ramp be constructed at the Illinois end of the Martin Luther King Bridge (MLK) that tied into west bound I-64 and Illinois Route 3. There would be an additional travel distance of one to two miles but actual travel time would be reduced.

HDR then examined the bigger, long-term problem of the daily congestion on eastbound PSB into Illinois, particularly during the evening peak. A HDR bridge engineer suggested widening the east bound portion of the PSB by one lane. The PSB is actually two structures which was over-designed for its time. Instead, the eastbound bridge structure would be jacked up, slid over nine feet and then put back down. Another eastbound lane would then be constructed. If the open spaces between existing piers were infilled with concrete and a structure built around them, the bridge could carry the additional load of that new lane. The box beams underneath the bridge deck then would be tied together, making the two bridge structures into one which would be stronger than it is today.

Traffic model showed that with the additional lane there would a good flow on the PSB but there would still be congestion on the eastbound I-64 approach to the PSB. Three eastbound I-64 lanes are reduced to two at the last Missouri exit and then I-64 goes back to three lanes. This configuration

causes some of the eastbound back-up on the PSB. The Sixth St. ramp brings traffic up into the two lane section. HDR recommended that the Sixth St. ramp be extended eastward to join up with new lane on PSB. Entering the PSB eastbound there would be two lanes from I-64, two lanes from I-55 ramp and the Sixth St. ramp extension would total five lanes. To go a step further, HDR also recommended adding a separate collector/distributor lane south of the existing elevated lanes. Drivers would have the option to exit I-64 or continue onto the PSB. In addition the last Missouri exit on east bound I-64 would be reconfigured to be an on-ramp to westbound I-64 and the Broadway on-ramp to westbound I-64 would be reconfigured to be an exit ramp from eastbound I-64. Traffic model shows that congestion would improve significantly.

The findings of the HDR study and their recommendations were presented at a special Board of Directors meeting in mid-September. That way the Board would have time to review the analysis and work out the politics before their regular meeting on September 26. The recommendations presented by HDR would alleviate congestion, provide a long term solution to congestion, have a positive regional benefit and improve safety. The total cost for all these options would be more than the \$55 million of Missouri funds available. The project was divided into three phases based on construction and funding availability. Phase 1 would include the \$17 million MLK connector and \$25.7 million upgrade of three of the four ramps at the west end of PSB. Work on Phase 1 could begin as early as 2015. States have already begun design work. Phase 2 would be set for 2016 and would include the PSB slide, modification of the Sixth St. ramp and rebuilding the I-55 ramp onto eastbound PSB. Phase 2 would cost \$37.3 million. Cost of Phase 1 and Phase 2 would total \$80 million and would solve the congestion problem, redo the interchange and add fifth east bound lane on the PSB. Illinois will need to find \$25 million which is the amount EWG had heard that Illinois could find. Phase 3 would consist of the construction of the collector/distributor lane and the redirection of two ramps in Missouri and is estimated to cost \$31 million. MoDOT will have to look for funding. The total cost for all three phases would be \$111 million. At the end of the HDR presentation, the Board gave HDR a round of applause. The MoDOT District Engineer called it an “elegant solution” to the problem.

At the September 26 Board of Directors meeting, the Board voted to adopt the recommendations made by HDR and made a commitment to amend the FY 2013 -2016 TIP in January 2013. The Conformity Determination and the FY 2013-2016 TIP were approved by the Board. The Board was informed that several things need to be accomplished before January. A new Conformity Determination is to be performed because of the addition to the TIP of the MLK connector, the PSB slide and the extension of the Sixth St. ramp. Since a funding source for Phase 3 has not been identified, it would not be part of the amendment. A financial commitment from Illinois is needed.

Staff is working with IDOT and MoDOT and has begun the Conformity Determination effort. Last week the Governor of Illinois announced the State’s commitment to make available \$25 million for these projects. Illinois has recognized the importance of these projects to the region and to commerce. In January, the amendment to the FY 2013-2016 TIP and the Conformity Determination will be presented to the Board. With approval, can move ahead with getting these projects built. After the New Mississippi River Bridge opens in early 2014, work on the PSB interchange would begin. Work on the MLK connector could begin in 2015.

Mr. Nagle, EWGCOG, said that this summer, EWGCOG Executive Director said that coordinating the independent review was a great example of EWGCOG coming to the rescue. Mr. Wild and EWGCOG staff were given a round of applause. Mr. Stack, IDOT, said that EWGCOG staff did an excellent job to help solve what could have been a difficult situation for all. Mr. Wild, EWGCOG, said that staff had worked very hard on this and it was nice to receive praise for their efforts.

III. Great Streets Initiative

- David Wilson, East-West Gateway Council of Governments

The first round of this initiative began in 2004 when communities from throughout the region were invited to apply for consulting services in order to develop a “Great Street” in their community. Four projects were selected and one was a six block section of South Grand Boulevard south of Tower Grove Park in the City of St. Louis. The South Grand Community Improvement District (CID) and the City of St. Louis partnered in this effort. It already had a number of elements which make up a Great Street. A Great Street is one that serves pedestrians, bicyclists, automobiles and transit and also supports and enhances local economic activity.

Initial consultation began in 2006-2007 and federal stimulus funds in 2009 enabled the implementation of two project phases. The third phase is currently being implemented. Problems identified by South Grand residents were narrow, cracking sidewalks, limited off-street parking, challenging on-street parking, cross walk safety for pedestrians and speed of traffic (posted at 35 miles per hour [mph], average 42-45 mph). Further into the project, identified following environmental issues: street tree health; stormwater; heat island effect; and light and air pollution.

At the beginning of the project, South Grand had two lanes in each direction and parking on both sides of the street. Street configuration option preferred by residents was one lane in each direction with a center turn lane and keeping parking on both sides of the street. The initial design also created bulb-outs at South Grand Boulevard corners to narrow the crosswalk distance for pedestrians. It would improve pedestrian safety, shorten time to cross street and improve travel time of vehicles. As the project moved forward, it was determined that it was possible to install bulb-outs on all sides of intersections. This would create additional green space and rain gardens with native plants would serve as stormwater catchment areas. The Metropolitan St. Louis District (MSD) is interested in researching the effectiveness of such an approach. A city tree consultant recommended increasing the size of tree wells and changing the type of soil to have healthier tree growth. Also proposed was the addition of pervious sidewalk sections to increase rainwater and air flow down to the tree roots. With all the green actions taken, pervious area in the six blocks is estimated to have increased by about 16 percent.

Starting as a one month pilot project, the City Streets Department installed temporary barriers to create the corner bulb outs and restriped the traffic lanes in the six block area. The Streets Director was skeptical about the effectiveness of the “street diet” but when he learned of the local support he agreed to set up this pilot project. Portable signs were deployed announcing the project and listing a telephone number for a survey about it. There was a positive response. The cheapest action taken was the City reduced the speed limit from 35 mph to 25 mph and improved the traffic signal

interconnects. Lane changes are now permanent. The average vehicle speed is now around 32 mph and traffic now moves through this area more efficiently. It also makes neighborhood more safe for pedestrians and reduces street noise.

The rain gardens should be installed in Spring 2013. MSD has been conducting pre-installation monitoring and pollutant analysis of stormwater entering the storm drains and will continue monitoring after the rain gardens are in place. MSD has provided matching funds for these measurements. EWGCOG has partnered with the Missouri Department of Conservation (MDC), the South Grand CID and the St. Louis Academy of Science to install six large signs describing the purpose of and contents of the rain gardens. The South Grand CIP has reported that even though some elements still have to be completed, since the final installation of the bulbouts, tax revenues are up eight percent.

In a related pilot project started a few years earlier, EWGCOG worked with the City of St. Louis and MSD to install pervious surfaces (pervious pavers, pervious asphalt, pervious concrete) in three alleyways. The function of these surfaces and water quality is to be evaluated over time. The principles used in South Grand Great Streets project could be used in other areas. Great Street Initiative images, powerpoints and a design guide can be found at www.greatstreets-stl.org or www.ewgateway.org. Three communities have been selected to participate in a second round of Great Street consulting for Missouri communities.

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

Mr. Nagle, EWGCOG, reported that as the major refineries on the East Coast reduced their operations before Super Storm Sandy there could be an impact on prices. Clean Cities is doing everything it can to make us more energy independent.

Mr. Herdler, St. Louis Regional Clean Cities Program (SLRCC), said that SLRCC is working with Ranken to start a mechanic training class for compressed natural gas (CNG) vehicles. Businesses and school districts are interested in CNG vehicles as well as propane vehicles. Allied Waste brought in 74 trash vehicles fueled with CNG and intends to buy 50 CNG vehicles. Allied Waste's refueling station is located at their St. Charles Rock Road transfer station. Waste Management is also going to use CNG-fueled trash trucks.

SLRCC is planning their activities for the January 2013 St. Louis Auto Show at America's Center in downtown St. Louis. The plan is to take 40,000 square feet in the Edward Jones Dome and replicate a city street with trash trucks, a garage for repairs and charging stations for electric vehicles. There will be a ride and drive area with electric, CNG and propane vehicles and a park area where Auto Show visitors can rest and receive one-on-one information on alternative fuel vehicles.

V. 2012 Ozone Season Wrap Up
- Carol Lawrence, East-West Gateway Council of Governments

There were 40 ozone days with 170 exceedances of the 2008 eight-hour ozone standard. Every monitor in the non-attainment area had double-digit exceedances. The current 2008 ozone standard is 75 parts per billion (ppb). An exceedance of the standard occurs when an eight-hour average of values is calculated to be greater than 75 ppb on any given day. The 2012 summer was the fourth hottest on record. There were over 60 days with temperatures of 90° or higher. There were nine days with just one exceedance and one day where all the monitors recorded an exceedance. As part of this project, EWGCOG also tracks information from four monitors located north and south of the ozone non-attainment area. These monitors experienced 26 ozone days and 37 exceedances.

The 2012 ozone data still has be verified but it appears that the West Alton monitor violated the 1997 eight-hour ozone standard. MoDNR and USEPA are holding discussions about implications and next steps. However, when the five-year running average of 1999-2012 exceedances is examined, continue to see ozone levels decrease. Trend shows a decline in exceedances and area is continuing to make progress. Mr. Wilson, EWGCOG, observed that if the area had not been making progress over the last 15 years, the air quality this summer could have been much worse.

VI. Update Activities of the States
- Joe Winkelmann, Missouri Department of Natural Resources
- Mike Rogers, Illinois Environmental Protection Agency

MoDNR has installed a near-roadway nitrogen dioxide (NO₂) monitor in the greenhouse parking lot in Forest Park north of I-64. Full-time recording of data should begin January 1, 2013. MoDNR worked with the Missouri Department of Transportation to meet the federal near-roadway monitoring requirements.

The Missouri Air Conservation Commission (MACC) met on October 25. The next meeting is December 6 in Jefferson City. There will be a public hearing on the rescission of the rule at 10 CSR 10-6368, control of mercury emissions from electric generating units (EGUs). Since the federal Clean Air Mercury Rule (CAMR) was vacated, this state rule is now obsolete. CAMR is being replaced by the federal Mercury Air Toxics guidelines. The second rule up for public hearing is 10 CSR 10-6191, referencing the federal requirements for sewage sludge incinerators. This rule primarily affects the Metropolitan St. Louis Sewer District. Also up for public hearing is the sewage sludge incinerators emissions guidelines plan. This plan is required by Clean Air Act Section 111(d) to demonstrate that Missouri can enforce the requirements of the sewage sludge incinerators emissions rule. With the plan, Missouri can receive enforcement authority for this rule.

The public comment period on the revisions to the Illinois vehicle emissions inspection program is open until November 5. These revisions were made and implemented in 2000 but the revisions had not been submitted to USEPA Region 5 for approval. If a public hearing is requested, it will be on November 13 in Springfield and the comment period then will be extended until December 13, 2012. A summary of the changes is available under the Air tab at the Illinois EPA web site.

Discussions continue with petroleum industry representatives on the decommissioning of the Stage II Vapor Recovery program for the Chicago area. Anticipate that a rule proposal will be submitted to the Illinois Pollution Control Board in December 2012. The rule proposal will be to end the Stage II program in the Chicago area and for the new Stage II program to begin in January 2014. The deadline for decommissioning of all Stage II facilities would be by the end of 2016 or 2017, depending on comments and/or further discussion. Majority of the Stage II equipment is vacuum-assisted type which is incompatible with the current on-board (vehicle) vapor recovery equipment. When vehicles are refueled, excess air is brought back into the underground gasoline storage tank where it becomes saturated with hydrocarbon vapors. The pressure inside the tank increases until vapors are released through the vent pipe, contributing to air pollution. With the decommission of this type of equipment at service stations in a two to three year period, could get rid of the problem. Illinois EPA could dedicate resources to other programs.

A decision is expected in early December by USEPA Region 5 on a permit petition by US Steel, Granite City Works. Only two comments were received (from USEPA) on a proposed permit for a new baghouse for the basic oxygen furnace at the Granite City Works. It is expected that the permit will be released by the end of the year. The USEPA Appeals Board remanded a permit for Mississippi Lime back to Illinois EPA. Illinois EPA is working to address the issues raised.

VII Other Business

Mr. Wild, EWGCOG, announced that EWGCOG will be co-hosting a Title VI workshop for federally funded jurisdictions and agencies on November 14 at the University of Missouri-St. Louis. Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color and national origin in programs and activities receiving federal financial assistance. Mr. Nagle, EWGCOG, announced that Gateway's annual meeting will be on November 9 at the Hilton at the Ballpark in downtown St. Louis.

Ms. Fuchs, American Lung Association, said that on November 2 the Metro East Citizens Air Project (MECAP) will be hosting the second Metro East Air and Health Forum in Collinsville. At this event, MECAP and the St. Louis Regional Clean Air Partnership will be presenting four Metro East communities with Care for Air award. Discussions are underway for holding a similar type event on the Missouri side next year.

The next meeting was scheduled for January 29, 2013. There being no other business, the meeting of the Air Quality Advisory Committee was adjourned.