

MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
AIR QUALITY TECHNICAL ADVISORY COMMITTEE MEETING

Thursday, February 28, 2008
MAG Office
Phoenix, Arizona

MEMBERS PRESENT

John Kross, Town of Queen Creek, Chairman
David Fitzhugh, Avondale
Lori Brown for Lucky Roberts, Buckeye
*Jim Weiss, Chandler
#Jamie McCullough, El Mirage
Lisa Taraborelli for Tami Ryall, Gilbert
Doug Kukino, Glendale
James Nichols, Goodyear
#Greg Edwards for Scott Bouchie, Mesa
Joe Gibbs for Gaye Knight, Phoenix
Larry Person, Scottsdale
Antonio DeLaCruz, Surprise
Oddvar Tveit, Tempe
*Mark Hannah, Youngtown
*Walter Bouchard, Citizen Representative
*Corey Woods, American Lung Association of Arizona
Barbara Sprungl, Salt River Project
*Brian O'Donnell, Southwest Gas Corporation
Mark Hajduk, Arizona Public Service Company
#Gina Grey, Western States Petroleum Association
*Randi Alcott, Valley Metro
*Dave Berry, Arizona Motor Transport Association
Jeannette Fish, Maricopa County Farm Bureau
*Russell Bowers, Arizona Rock Products Association
*Michelle Rill, Greater Phoenix Chamber of Commerce

Amanda McGennis, Associated General Contractors
*Spencer Kamps, Homebuilders Association of Central Arizona
#Mannie Carpenter, Valley Forward
Kai Umeda, University of Arizona Cooperative Extension
Beverly Chenausky, Arizona Department of Transportation
Diane Arnst, Arizona Department of Environmental Quality
#Scott Bohning for Wienke Tax, Environmental Protection Agency
Dena Konopka for Jo Crumbaker, Maricopa County Air Quality Department
Duane Yantorno, Arizona Department of Weights and Measures
*Ed Stillings, Federal Highway Administration
*Judi Nelson, Arizona State University
Stan Belone for B. Bobby Ramirez, Salt River Pima-Maricopa Indian Community
*David Rueckert, Citizen Representative

*Members neither present nor represented by proxy.
#Participated via telephone conference call.
+Participated via video conference call.

OTHERS PRESENT

Lindy Bauer, Maricopa Association of Governments
Julie Hoffman, Maricopa Association of Governments
Patrisia Magallon, Maricopa Association of Governments
Cathy Arthur, Maricopa Association of Governments
Taejoo Shin, Maricopa Association of Governments
Ranjith Dandanayakula, Maricopa Association of Governments
Dean Giles, Maricopa Association of Governments
Randy Sedlacek, Maricopa Association of Governments
Heather Hodgman, City of Apache Junction

Bob Dulla, Sierra Research
Joonwon Joo, Arizona Department of Transportation
Jane McVay, Arizona Department of Transportation
Scott DiBiase, Pinal County
Russell VanLeuven, Arizona Department of Agriculture
Johannes Zech, Arizona State University
Leonard Montenegro, Arizona Department of Environmental Quality
Scott Norby Cedillo, Arizona Department of Environmental Quality

1. Call to Order

A meeting of the MAG Air Quality Technical Advisory Committee was conducted on February 28, 2008. John Kross, Town of Queen Creek, Chair, called the meeting to order at approximately 1:30 p.m. Jamie McCullough, City of El Mirage; Greg Edwards, City of Mesa; Mannie Carpenter, Valley Forward; Gina Grey, Western States Petroleum Association; and Scott Bohning, Environmental Protection Agency, attended the meeting via telephone conference call.

2. Call to the Audience

Mr. Kross stated that, according to the MAG public comment process, members of the audience who wish to speak are requested to fill out comment cards, which are available on the tables adjacent to the doorways inside the meeting room. Citizens are asked not to exceed a three minute time period for their comments. Public comment is provided at the beginning of the meeting for nonagenda items and nonaction agenda items. He noted that no public comment cards had been received.

3. Approval of the December 17, 2007 Meeting Minutes

The Committee reviewed the minutes from the December 17, 2007 meeting. Doug Kukino, City of Glendale, moved and Joe Gibbs, City of Phoenix, seconded and the motion to approve the December 17, 2007 meeting minutes carried unanimously.

4. Gila River Indian Community Air Quality Management Plan

Mr. Kross stated that at the request of the Gila River Indian Community, this agenda item will be postponed. The Gila River Indian Community notified MAG staff that they are in the process of revising the plan and would prefer to wait on a presentation until the revisions are completed.

5. PM-10 Source Attribution and Deposition Study

Cathy Arthur, Maricopa Association of Governments, introduced the PM-10 Source Attribution and Deposition Study. She stated that the field study was conducted in November through December of 2006. Ms. Arthur added that the study was utilized to prepare the Five Percent Plan for PM-10 that was submitted to the Environmental Protection Agency (EPA) in December 2007. She mentioned that some of the material has been discussed previously as part of the Five Percent Plan development. Ms. Arthur indicated that Bob Dulla, Sierra Research, will provide an overview of the study and a draft report has been prepared. She added that the study was not submitted as part of the Five Percent Plan documentation; however, EPA has indicated that they may reference the study when providing comments on the Five Percent Plan. She commented that MAG contracted with Sierra Research and T&B Systems for the study. Ms. Arthur stated that T&B Systems conducted the field data collection. She added that Bob Baxter, T&B Systems, provided the preliminary results of the field study to the Committee approximately one year ago. She indicated that it has taken one year to pull the data together to be used for the Five Percent Plan and create the final report. Ms. Arthur introduced Bob Dulla, a senior partner of Sierra Research, to provide a presentation on the PM-10 Source Attribution and Deposition Study.

Mr. Dulla stated that the presentation will include: background, study team, study goals, approach in terms of collecting field data, analyses for ambient measurement and source characteristics, model performance, conclusions and recommendations. He indicated that the region had numerous exceedances recorded in late 2005 and early 2006. Mr. Dulla stated that failure to attain the PM-10

standard by December 2006 invoked Section 189(d) of the Clean Air Act, which indicates that the region must prepare a Five Percent Plan that requires annual five percent reductions until attainment. He added that the plan was due by the end of December 2007. Mr. Dulla stated that improvements were discussed in the process of plan development so they will not be repeated. He indicated that the focus of the presentation will be on key insights gained from the field study/analysis.

Mr. Dulla mentioned that the two separate contracts issued for the study were with T&B Systems and Sierra Research. He indicated that T&B Systems focused on ambient monitoring and was responsible for installing instrumentation, collecting data, and targeting periods and times for collecting data. Mr. Dulla commented that Sierra Research performed the data analysis and modeling. He noted that Sierra Research coordinated with T&B Systems, MAG, and a variety of other subcontractors that were involved in the effort. Mr. Dulla stated that MAG also had a contract with UC Riverside to collect SCAMPER measurements. He added that SCAMPER is a device that collects measurements from silt loadings on the road as a vehicle travels on the road. Mr. Dulla mentioned that there was a 100 mile SCAMPER route that went around the region and data was collected four times during 2006. The focus of this study was to collect SCAMPER data in the Salt River Area during the design day periods, which were in late November and early December, when there were stagnant conditions, the worst inversions, and the highest concentrations.

Mr. Dulla stated that Sierra Research subcontracted with UC Riverside to focus on the Salt River Area. He added that the 100 mile SCAMPER route went through the area; however, there were not many roads where data was collected. Mr. Dulla mentioned that a local subcontractor, Applied Environmental Consultants, collected information on a number of locations and facilities that were adjacent or near the monitors in the Salt River Area. He commented that Applied Environmental Consultants observed activity levels in order to estimate what unpaved road and vacant lot emissions would look like in areas around the Salt River. Applied Environmental Consultants also collected silt measurements. MAG contracted with Field Data Services to collect traffic count data in tandem with the SCAMPER measurements.

Mr. Dulla commented that there were high concentrations recorded in December 2006, which was when the field data was being collected. He noted that there were measurements of the activity, including traffic counts by vehicle type, on the days that were being modeled, which is a big advantage. Mr. Dulla mentioned that this study was useful in providing the information needed to have confidence in the emissions estimate being produced, as well as understanding the impacts at the monitors. He indicated that SOTA Environmental collected permit files for the larger sources in the area. Mr. Dulla stated that Rincon Ranch Consulting prepared a statistical analysis of the meteorological data and concentrations to understand which sources might be impacting the monitor sites. Mr. Dulla mentioned that Particle Measurement Technology specializes in particle counts. He indicated that their focus was to collect data on particle deposition. Mr. Dulla commented that all of the named firms were involved in the study and provided information that was integrated into the Five Percent Plan.

Mr. Dulla stated that the basic study goals were to understand and quantify the sources that were impacting the Durango Complex and West 43rd Avenue monitors under both low wind and high wind conditions. He added that another element of this study was to improve source characterization. Mr. Dulla commented that the first step was to review the historical work completed in the area. He noted that the Arizona Department of Environmental Quality (ADEQ) generated an air quality modeling study for the region. Mr. Dulla mentioned that Sierra Research looked at their inventory calculations

to understand where improvements might be needed. He stated that Sierra Research focused on definitions of boundaries for individual sources and roads in order to locate the sources within the modeling domain, and to quantify the emissions from those sources. Mr. Dulla added that Sierra Research wanted to understand what the diurnal profile of activity looked like for the facilities. He mentioned that interviews were conducted with a number of large operators in the area to understand their activity levels. He indicated that they learned from those interviews that the activity levels are highly variable and very demand driven. Mr. Dulla stated that it became apparent in the study that using assumptions about annual activity that is distributed to individual days is a poor substitute for understanding what is causing high concentrations on a specific day. He added that it is much more valuable to have accurate information on the day being modeled; however, it can be difficult to obtain.

Mr. Dulla stated that the ADEQ Salt River Area Technical Support Document (TSD) indicated that transport was a very significant issue. He added that the TSD concluded that many of the sources impacting the monitors in the Salt River Area were located outside of the modeling domain. Mr. Dulla mentioned that this conclusion has a big impact in terms of evaluating control strategies and the effectiveness. He indicated that Sierra Research also looked at the TSD modeling methodology with regard to how sources were defined and the profiles that were used. Mr. Dulla stated that another objective of the study was to look at particle deposition. He added that one important issue to understand is where the sources are located, and getting direct measurement of particle deposition would provide insight to the issue.

Mr. Dulla discussed the approach for the study. He stated that Maricopa County agreed to change the monitoring time for both meteorological and monitoring data from one hour to five minute increments. He added that this change was especially important when low wind speeds were present. Mr. Dulla indicated that when wind is frequently changing direction and at a very low speed, the five minute data gives insight in terms of understanding where the emissions are coming from that are impacting monitors.

Mr. Dulla stated that a series of instruments were added at the West 43rd Avenue monitoring site for this study. He added that a Mini SODAR was installed which is an acoustic measurement device that measures the mixing height. This device was useful in providing the actual measurements of mixing heights on the days in which the standard was exceeded. Mr. Dulla stated that it provided a metric that could be use to compare with what an air quality model would estimate using regional data. He stated that a digital camera that took thousands of pictures was also installed. This provided a great deal of insight into emission sources that are not normally characterized. He mentioned that a Particle LIDAR unit was installed that is a radar scanning device for particle distributions. Mr. Dulla stated that a temporary monitor was also installed at 35th Avenue. He added that two vehicles were equipped for mobile monitoring with DustTraks to obtain measurements for both PM-2.5 and PM-10. Mr. Dulla mentioned that one of the issues was trying to understand the particle size distribution. He indicated that one vehicle was equipped with DustTraks and an aerodynamic particle sizer, which is a unit that looks at the size distribution of particles.

Mr. Dulla stated that another focus of the study was activity measurements. He indicated that the activity measurements included traffic counts, off road travel, source interviews, accident reports for specific dates, and Notices of Violation (NOVs) issued on specific dates. Mr. Dulla mentioned that when assembling the data and looking at concentrations that were recorded, the profiles would be plotted throughout the day. He commented on the morning and evening peaks of activity. Mr. Dulla

mentioned that some high concentrations were not explained by any of the data that was characterized. Mr. Dulla added that the team looked to see if there were any accident statistics or NOVs that were issued during those hours. He mentioned that for particle deposition, four dust jars were located in areas surrounding the Durango Complex and West 43rd Avenue monitors in order to collect actual measurements of particle deposition. Mr. Dulla commented that information on silt measurements was also collected. He stated that one approach was to use the SCAMPER vehicle, which created a profile on all the roads throughout the region and was useful in characterizing the differences on the different roads. Mr. Dulla added that another method was using the vacuum sampling approach, EPA AP-42 methodology. He indicated that with this method, a sample is collected, bagged, weighed, and a sieve analysis is run to determine the silt measurements.

Mr. Dulla stated that the data analysis was broken into ambient measurements and source characterization. He added that with inventory development, Sierra Research started with the ADEQ TSD framework. Mr. Dulla indicated that the modeling domain was from 51st Avenue to 7th Street and Van Buren Street to Baseline Road. He mentioned that the domain which was selected for the study was slightly smaller than the domain in the TSD. He stated that for air quality modeling, the choice was made to configure and apply AERMOD. Mr. Dulla added that Sierra Research focused on evaluating model performance.

Mr. Dulla stated that the key categories of analysis for the ambient measurements were particle size distribution, back trajectories, particle deposition rate modeling, particle deposition monitoring, transport monitoring, nonparametric regression, and field observations. He indicated that back trajectories are key to understanding where the concentrations are coming from that are impacting the monitors during the previous time steps. He added that the back trajectory and five minute data were very helpful in understanding wind currents, wind directions, whether there was a prevailing wind direction, or if wind was present during stagnant conditions. Mr. Dulla discussed particle deposition rate modeling, which is looking at the estimated amount of time the particles remain in the atmosphere. He indicated that Sierra Research was able to compute the time that the particles could be suspended in the air. Mr. Dulla stated that particle deposition monitoring provided the size distribution of the particles that were deposited in the dust jars.

Mr. Dulla discussed transport monitoring. He commented that the ADEQ TSD concluded that transport was significant. Mr. Dulla stated that when concentrations were high at the monitors, they were able to drive the vehicle equipped with DustTraks through the area in order to collect measurements adjacent to the monitors, surrounding the monitors, and at the boundaries of the modeling domain. He mentioned that the data indicated if the concentrations were uniform or how they were distributed. Mr. Dulla indicated that by going out to the boundaries, they were able to show that those concentrations were lower than near the monitoring sites or other locations within the modeling domain. He stated that nonparametric regression provided information on wind speed, wind directions and concentrations so a profile could be created to see where the high concentrations are coming from that are impacting specific locations. He mentioned that nonparametric regression provides insight on sources that may be regularly impacting the monitors. Mr. Dulla discussed field observations. He mentioned that a lot of pictures were taken and Sierra Research was able to learn from these pictures. Mr. Dulla commented on a truck school that was located across from the Durango Complex monitor. He added that the school has now been shut down.

Mr. Dulla stated that in terms of ambient measurements, there were major findings in the study with regard to transport and mixing height. He indicated that the study looked at the different components of transport. He discussed settling velocity by particle size, based on diameter, and particle size distribution. Mr. Dulla mentioned that based on particle size distribution, the time that the particles were going to be suspended in the air was short depending on the ceiling height. He stated that based on the five minute measurements of wind speed and direction, Sierra Research was able to back calculate the locations of the air pockets. He discussed the mobile measurements at the domain boundaries. Mr. Dulla indicated that the data provided insight that led to the conclusion that localized sources are significant in terms of impacting the monitors.

Mr. Dulla commented on the mixing height in ambient measurements. He indicated that the ADEQ TSD showed that the mixing heights were about several hundred meters during severe inversions on the days that were modeled by ADEQ. Mr. Dulla stated that SODAR measurements showed that the mixing heights were below 100 meters and as low as 30 meters during high concentration periods. Mr. Dulla mentioned that Sierra Research was able to use AERMET, which is the preprocessor model for AERMOD, to calculate the ceiling height. Mr. Dulla stated that AERMET consistently replicated measured values in 2006. He commented on the AERMET estimates for design days and stated that a lower mixing height reinforces focus on localized sources. He added that the data was helpful since it allowed Sierra Research to understand the impact of the mixing height in terms of modeling.

Mr. Dulla commented on source characterization. He indicated that the traffic counts were useful since the counts were by hour on the days when violations occurred. Mr. Dulla mentioned that Sierra Research was able to also get counts by vehicle size class. He commented on the silt measurements and that the SCAMPER vehicle provided the silt levels throughout the area. Mr. Dulla stated that Sierra Research was also able to obtain silt measurements using the vacuuming method on the ground in 2007. He added that the vacuuming method was able to provide insight on the benefits of control measures that had been introduced to impact silt levels.

Mr. Dulla mentioned that Sierra Research had conversations with a number of industrial facilities throughout the area. He indicated that the industrial facilities had computerized records on the activity levels of each day including the hours of production. Mr. Dulla noted that the activity level was driven by the demand for the product, which may be different than what is assumed as a typical operating pattern throughout the year. He stated that information on construction activity was also collected. Mr. Dulla mentioned that the detail on hours of operation for construction was not available as it was for industrial sites; however, Sierra Research was able to obtain information on the permits for earthmoving used to identify individual locations where construction was occurring. He added that Sierra Research used aerial imagery to see the acreage that was going to be disturbed and identify the boundaries of the construction area. Mr. Dulla commented on agricultural activity. He stated that the normal approach for estimating emissions for agricultural activity is to determine the crop and passes required for tilling, fertilizing, and any other activities and then distribute those activities throughout the season in which the crop is growing. Mr. Dulla added that during the time period in which Sierra Research was interested, agricultural areas were transitioning from cotton to wheat and operating continuously. He mentioned that this type of insight shifts the understanding from where the sources are coming that are impacting the monitors. He commented on agricultural sources adjacent to monitors.

Mr. Dulla discussed the importance of source resolution and individual boundaries for individual sources. He stated that ADEQ had taken emissions for a number of facilities, roads in particular, and distributed them throughout grid cells that were 400x400 meters in size. Mr. Dulla stated that Sierra Research identified the borders for the individual roads, which changed the source strength. He added that as a result, the source impacted the monitor differently than it would have if distributed within a grid cell. This improvement was made for construction sites, agricultural sites and industrial facilities. Mr. Dulla indicated that the information provided the ability to more accurately identify the source impact at the monitors and gave confidence on the days that were being modeled in 2006. Mr. Dulla noted that there were measurements for 2006, but not 2005. He indicated that some of the insights were extrapolated back to 2005 for use in the SIP. He discussed the confidence in the 2006 inventory.

Mr. Dulla discussed the activity profile, which included vehicle counts and hours of operation. He added that the activity profile provided insight on source strength. Mr. Dulla stated that a category that did not work out as well was high wind events. He explained that high wind events occur when the winds are about 15 miles per hour and able to pick up material off the surface and re-entrain it into the air. Mr. Dulla mentioned that the five minute data was used to develop a profile of the wind distribution for the days that were modeled and allocate hourly average values into individual mile per hour bins. He indicated that emissions were computed for each bin and weighted by number of seconds within each hour. Mr. Dulla commented on the difference in emission estimates using this approach versus hourly average value. Mr. Dulla stated that the analysis resulted in a 10 percent increase in emissions and did not provide the insight in capturing the impacts of high wind events.

Mr. Dulla commented on model performance. He stated that the predicted concentrations generally track the diurnal profile. Mr. Dulla stated that the predicted concentrations versus the measured concentrations tracked reasonably well, particularly in the morning and midday. He mentioned that there was trouble trying to understand the nighttime hours when activity levels fall dramatically, but high concentrations are still in the area. Mr. Dulla indicated that they were not able to replicate what occurred at night and would like to understand it better. He added that there may be events occurring at night in the area that are not reported.

Mr. Dulla presented the comparison of the diurnal distribution of measured concentrations and AERMOD predicted source concentrations for the Durango Complex monitor on December 6, 2006. He mentioned the mix of sources during the morning hours. Mr. Dulla mentioned that there is a rise in activity when the ceiling height is low. He indicated that as the emissions increase, a higher concentration will be generated until the ceiling height starts to rise. Mr. Dulla commented that the ceiling height starts to rise around 8:00 a.m. to 9:00 a.m. in the morning. He stated that when there is room for dispersion, the concentrations begin to fall. Mr. Dulla commented on being able to replicate the profile well. He added that the levels during the midday stay low and in the evening, the ceiling height drops rapidly and concentrations come back up, which is coincident with the rise in activity in the evening. Mr. Dulla mentioned that elevated concentrations remain throughout the night and into the morning that are not explained by the activity levels found. He commented that the model is not doing a good job of predicting these elevated concentrations at night. Mr. Dulla mentioned model performance and looking at this issue in a future study.

Mr. Dulla presented the comparison of the diurnal distribution of measured concentrations for AERMOD predicted source concentrations for the West 43rd Avenue monitor on December 6, 2006. He commented on the West 43rd Avenue monitor comparison not doing as well as the Durango

Complex monitor. Mr. Dulla stated that during the morning hours there was a rise in the activity pattern, which the model showed. He added that for an unknown reason the concentrations remained elevated later in the morning after the ceiling height started to rise. Mr. Dulla mentioned that the model was not able to replicate what was causing the concentrations to remain elevated. He commented on a similar pattern in the evening when there were elevated concentrations relative to what was predicted. Mr. Dulla noted that the figures do not include background estimates. He stated that the study was for 2006 and background estimates were developed for the SIP, which were generally uniform throughout the day. Therefore, all of the predictions would be raised slightly. Mr. Dulla noted that the sources that were modeled for the study were only the sources that were thought to be impacting the monitor sites.

Mr. Dulla presented the model performance of a prediction on a high wind day. He stated that this was a time period where there was a front that came through and the wind was coming from the south-southwest. Mr. Dulla added that there was trouble identifying sources of disturbed land coming from the south-southwest that impacted the West 43rd Avenue monitor. He indicated that when the wind was from the west, the model was able to pick up more areas of alluvial soil and disturbed soil. Mr. Dulla mentioned that there was a peak as wind came up quickly and the model was not able to replicate the event.

Mr. Dulla discussed the conclusions of the study. He mentioned that source strength is an important issue. He stated that attention to detail cannot be understated in terms of its importance. Mr. Dulla added that the boundaries of the sources and the day specific activities are crucial to understanding source characterization. He discussed understanding what happened on a particular day as opposed to an entire season. He indicated that paved road emissions are the largest contributor to ambient PM-10 in the Salt River Area. Mr. Dulla pointed out that paved road emissions are caused by multiple sources including trackout, dragout and windblown dust from vacant lots. He commented on low wind and stagnant conditions. He stated that the highest impacts are occurring during the morning hours after anthropogenic activity starts and before the rise in the mixing height. Mr. Dulla added that localized sources are dominating the monitor impacts. He indicated that the modeled estimates are consistently under predicting the nighttime and early morning concentrations. Mr. Dulla mentioned that in the data for December 2006, wind speed never reached 15 miles per hour. He indicated that wind speed was approximately 9-10 miles per hour, which was not sufficient to cause fugitive dust. Mr. Dulla commented that elevated winds would disperse the material that was in the air and lead to a reduction in concentrations that are occurring during stagnant conditions.

Mr. Dulla stated that recommendations for future studies would include conducting saturation monitoring under low wind stagnant conditions in order to have more measurements at multiple locations within the area. He added that the mobile monitoring was great in terms of providing insight at a lot of locations. Mr. Dulla mentioned that the deficiency of the mobile monitoring was that it did not provide information throughout the day in order to have a continuous pattern and a reference point to use to compare relative to the monitors. He indicated that it would be helpful to know how dispersion is occurring and the impacts of particular sources. He stated that the other recommendation would be evaluating the ability of CALPUFF to represent dispersion within the Salt River Area. He indicated that AERMOD is a model that predicts concentrations based on the emissions that occurred in that hour; therefore, there is no carryover effect from one hour to the next. Mr. Dulla added that a comparison was conducted between CALPUFF and AERMOD late in the study. Mr. Dulla mentioned that CALPUFF is not configured to represent a lot of different sources like AERMOD. He stated that

CALPUFF had a limit of 300 sources and AERMOD had four to five thousand sources. Due to the time constraint of completing the Five Percent Plan for PM-10, Sierra Research was unable to take the time to modify the CALPUFF model and investigate other opportunities. He indicated that it would be useful to understand the impact of carryover and shifting wind direction.

Mr. Gibbs mentioned the difference between 2005 and 2006 and commented on the major findings being universal from year to year. He inquired about the timing issue. Mr. Dulla replied that some of the insight received from the study could be used. He stated that they were able to do the comparison of the mixing height between the SODAR unit and AERMET, the preprocessor for AERMOD. Mr. Dulla added that this comparison provided the confidence that the model was working well in predicting ceiling heights. He mentioned that the model could be used for 2005 and there would be the comfort that it would work well. Mr. Dulla indicated that the 2006 study also provided some insight into diurnal profiles. He stated that the study report has a table for each source category that shows the critical assumptions in the ADEQ analysis, the assumptions used in the 2006 inventory, as well as what was done for 2005 in the SIP.

Mannie Carpenter, Valley Forward, inquired if the report would be available online. Lindy Bauer, MAG, replied that once the final report is received, the report will be listed under Environmental Programs Resources on the MAG website.

6. CMAQ Annual Report

Dean Giles, MAG, gave a presentation on the 2007 Congestion Mitigation and Air Quality Improvement (CMAQ) Funds Annual Report. He stated that the federal CMAQ program guidance requires that states and Metropolitan Planning Organizations (MPOs) complete an annual report that specifies how CMAQ funds have been spent and the expected air quality benefits. He added that MAG, working cooperatively with Arizona Department of Transportation, has completed the annual report for fiscal year 2007 that ended on September 30, 2007. Mr. Giles mentioned that a copy of the report had been included in the agenda packet. He indicated that the 28 projects that are listed include the project amount, project type, project title and description, and the estimated air quality benefit in terms of volatile organic compounds, carbon monoxide, nitrogen oxide, and PM-10. Mr. Giles noted that the Federal Highway Administration has indicated that MAG does not need to report the PM-2.5 air quality benefit since the region is not a PM-2.5 nonattainment area.

7. Update on the Air Quality Monitoring Data

Julie Hoffman, MAG, presented an update on air quality monitoring data for the region. She stated that the 2007 air quality monitoring data for ozone and PM-10 has been compiled and provided at each place. Ms. Hoffman mentioned that for 2007, the region had no exceedances of the eight-hour ozone standard. She indicated that in terms of exceedances this is an improvement from 2006 when the region experienced 24 exceedances at 13 sites. However, since the standard is calculated by averaging three years of the fourth highest ozone concentration at each monitor, the region has had three years of no violations. She stated that the table provided to the Committee shows the fourth highest monitor values for 2005, 2006, and 2007 and the three year average of the fourth high.

Ms. Hoffman stated that for PM-10 in 2007, the region experienced 20 exceedances of the 24-hour PM-10 standard. She added that these exceedances occurred on 11 days at 8 different monitors in the region and ADEQ has been gathering data to determine if these days qualify for natural events. Ms.

Hoffman mentioned that based on information received from Leonard Montenegro of ADEQ, as of November 2007, ADEQ had flagged three of the exceedances at the West 43rd Avenue monitor as natural events. She stated that ADEQ has also indicated that five exceedance days in 2007 will likely be flagged as natural events. Ms. Hoffman added that there are a few exceedances where ADEQ does not know if they will be flagged as natural events. She noted that there have been no exceedances of the PM-10 standard in 2008.

8. Proposed New Air Quality Project for the MAG FY 2009 Work Program

Ms. Bauer discussed the proposed new air quality project for the MAG FY 2009 Work Program. She stated that the project would be for consultant on-call technical assistance in the preparation of an Eight-Hour Ozone Maintenance Plan and preparation of supplemental analyses and information on the MAG Five Percent Plan for PM-10 to EPA as necessary. Ms. Bauer indicated that MAG may also need technical assistance for air quality modeling; traffic surveys and emission inventories; dirt road inventories and tracking the progress made to pave dirt roads; analysis of control measures; tracking implementation of committed control measures; CMAQ evaluation methodologies; and transportation conformity.

Mr. Kross inquired if the consultant on-call assistance will be available to the cities. Ms. Bauer replied that the consultant will be for technical air quality on-call assistance to MAG. She stated that an example of how cities may be impacted would be if a city proposed a CMAQ project where MAG does not have a methodology. The consultant could help MAG devise a methodology to evaluate and produce the cost effectiveness analysis that is brought to the Committee.

Barbara Sprungl, Salt River Project, stated that there has been an indication that EPA is looking at a .075 parts per million standard for ozone. She inquired how that change will impact proceeding with an Eight-Hour Ozone Maintenance Plan. Ms. Bauer replied that the region will need to see what is decided by EPA. She stated that a similar situation occurred with the one-hour ozone standard. She indicated that EPA proposed the eight-hour ozone standard in 1997, and MAG prepared the One-Hour Ozone Maintenance Plan to show that the region would maintain the standard through 2015. She added that EPA approved the plan and then revoked the one-hour standard the next day. Ms. Bauer commented that MAG will have to see what is decided by EPA and the timing of the new standard.

9. Tentative MAG Air Quality Project Schedule

Ms. Bauer stated that MAG has provided the two year schedule to track the MAG air quality activities. She added that the schedule is for calendar years 2008 and 2009. Ms. Bauer noted that page two includes the Eight-Hour Ozone Maintenance Plan schedule. She mentioned that MAG has indicated the major tasks so that the Committee can track when MAG has anticipated that the plan will be due. Ms. Bauer commented that EPA is encouraging MAG to prepare an Eight-Hour Ozone Maintenance Plan. She added that the region has had three consecutive three year periods with no violations. Ms. Bauer noted that EPA has indicated that the region has been placed in the attainment bin with the Washington EPA and therefore should start working on the Eight-Hour Ozone Maintenance Plan. Ms. Bauer stated that page three, under the Five Percent Plan for PM-10, is the new supplemental analyses as well as tracking the plan implementation, which was included in the Suggested List of Measures approved by the MAG Regional Council on May 23, 2007. She added that the unpaved road inventory is also listed under the Five Percent Plan for PM-10.

Mr. Gibbs inquired about what would trigger the supplemental analyses. Ms. Bauer replied that EPA is currently reviewing the Five Percent Plan for PM-10 and may request additional analyses.

10. Call for Future Agenda Items

Mr. Kross announced that the next meeting of the Committee has been tentatively scheduled for March 27, 2008 at 1:30 p.m. With no further comments, the meeting was adjourned.