

Particulate Matter Problems in Maricopa County and Today's Environment Committee Hearing

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Date: Tuesday, February 22, 2011, 6:12 PM

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Representative Amanda Reeve, Chair, House Environment Committee

Representative Frank Pratt

Representative Karen Fann

Representative Chester Crandell

Representative Heather Carter

Representative Lela Alston

Representative Eddie Ableser

Re: Particulate Matter Problems in Maricopa County and Today's Environment Committee Hearing

Dear Chairperson Reeve and other Arizona House Environment Committee members:

I attended the meeting today, and it is unfortunate that the public wasn't invited to speak, as I can and will answer and address some of the critical issues involved with today's session that were never addressed by those who gave testimony. I hope you are better served and better able to address the problems now that you have the rest of the story.

Representative Carter's question about how many sand and gravel operations are near air monitoring sites came the closest to getting to the truth behind the intractable problem of particulate matter pollution in Maricopa County. I came by the information after extensive interviews and meetings with Rick Haddow, who set up the county's air monitoring system, and who ran it for years. Please note that when I say sand and gravel operations, I also mean to include cement and asphalt plants, rock crushing operations, and the like.)

There are several sand and gravel operations surrounding the 43rd Avenue and Broadway Road air monitoring site, the one with the exceedances. There are also more sand and gravel operations at 51st Avenue and the Salt River bed. I urge you to actually visit that area of the valley, as you will quickly also ascertain that there is a cluster of these sand and gravel operations in the area and there is no other industry in the area, or really even

much street traffic. You will also see the fallout of the last night's dust from these adjacent sand and gravel outfits on local area residents' windshields if you get there in the early morning hours.

Simply put, the particulate matter problem is being caused by these sand and gravel operations. <http://dontwastearizona.org/gravel.html> has a short time lapse of what goes on at night when no inspectors from air pollution agencies are around to notice. Maricopa County has always found some excuse to not have inspectors on duty that time of the day. It just stands to reason that there should be inspectors on duty at times when there are the highest particulate matter readings, but the opposite is true.

Please review the MCAQD's interactive air monitoring website at <http://aqwww.maricopa.gov/AirMonitoring/SitePollutionMap.aspx>, and investigate the history of the particulate matter levels, especially at the 43rd Avenue and Broadway site. You will find that the particulate matter exceedances do not occur during rush hour traffic, and that they are indeed generally always at night time hours between 10PM and 2AM, which is when these sand and gravel operations are working. The same is true for the Coyote Lakes monitor that was removed by MCAQD when it showed exceedances.

If you were able to correlate windy days to the monitoring results, you'd also see that windy days don't usually cause high particulate matter levels. You received testimony that pointed out that windy days only triggered certain air monitors and not throughout the monitoring system. All the excess dust and particulate matter from these sand and gravel outfits gets stirred up and blown about when there is wind, but it is a localized phenomenon caused by the localized build up of large quantities of dust and particulate matter that have been emitted by the operations of the sand and gravel outfits.

As for the emissions inventories alleged by these sand and gravel outfits, see also the attached civil rights complaint filed with USEPA Office of Civil Rights in 2007 regarding the shortcomings of both ADEQ and MCAQD in that respect and other program problems. It details the problems and deficiencies. The civil rights complaint is still outstanding. The emissions of all other industries could be reduced until they are nothing, and there would still be exceedances at the 43rd Avenue and Broadway monitor because the problem is the adjacent sand and gravel companies and their actual emissions.

I must point out here that the issue of cumulative modeling and the prevention of clustering of sand and gravel outfits came up in the legislature when the 5% reduction plan was legislated, but that portion of the proposed bill was removed with the pressure from Rusty Bowers and the ARPA. (It is unfortunate that the home builders were scapegoated as the large cause of the particulate matter problem when it is instead the sand and gravel companies.)

To Representative Crandell's questions about the wind from the west blowing along the Salt River bed, it should be noted that even higher levels of particulate matter were recorded at the 22nd Avenue and Lower Buckeye Road monitor that was moved after

Rusty Bowers, in his role as a state senator, demanded that the monitor be moved. (There is a sand and gravel facility at 19th Avenue and the Salt River bed that had been fined by EPA for excess particulate emissions, and he was moving the monitor to protect the violator.) The 22nd Avenue and Lower Buckeye Road monitor had been there for many, many years. Air and air pollution slumps towards the Salt River bed at night as the night time brings cooler temperatures, as the Salt River bed is the low point of the metro area. So the Salt River bed will always be the place with the worst air quality, except for ozone, which forms after time, distance and high heat. Prevailing winds cause Fountain Hills and the East Valley to have the ozone problem.

But the Sun City area, which has a cluster of 28 sand and gravel operations, some on portable permits and some stationary, is not the low point of the metro area. The particulate matter problems in the Sun City area perfectly illustrate the lesson of the straw that broke the camel's back. Each of these sand and gravel operations actually emits large amounts of particulate matter. Their industry, by definition, is a disturber of soil and emitter of dust.

I believe the information I have provided should be helpful and illustrative in trying to craft a way out of our pollution difficulties. Particulate matter is a killer. I point to the December 14, 2000 *New England Journal of Medicine*, which contains the study entitled, "Fine Particulate Air Pollution and Mortality in 20 U.S. Cities, 1987-1994." It found that a 10 part per billion per cubic meter rise in particulate matter correlated to an immediate increase in mortality levels the very next day. Phoenix was one of the 20 cities studied. (See <http://www.ncbi.nlm.nih.gov/pubmed/11114312>)