



JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



STEVEN E. CHESTER
DIRECTOR

February 22, 2005

Mr. Bharat Mathur, Acting Regional Administrator
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard (R-19J)
Chicago, Illinois 60604-3507

Dear Mr. Mathur:

This letter is in response to the January 5, 2005, *Federal Register* notice, "Air Quality Designations and Classifications for the Fine Particles (PM_{2.5}) National Ambient Air Quality Standards; Final Rule," which formalizes the U.S. Environmental Protection Agency's (EPA's) December 17, 2004, designations of seven counties as nonattainment in the Southeast Michigan area. In this final rule, the EPA gives states the opportunity to submit the PM_{2.5} 2004 monitoring data, calculate the 2002-2004 three-year annual average, and request changes in attainment status.

The Michigan Department of Environmental Quality (MDEQ) believes that a change of designation status is appropriate for several counties within Southeast Michigan for the reasons stated below. The MDEQ respectfully requests the EPA change the designations for Livingston, Oakland, Macomb, Monroe, St. Clair, and Washtenaw Counties to attainment.

Michigan has worked diligently to have the 2004 monitoring data completed, quality assured, and certified within the time frame indicated in this rule. This data was recently submitted to EPA. As described below, this data further demonstrates the validity of MDEQ's analysis related to the criteria EPA used to make the designation decision. In addition, one of the two counties with 2001-2003 nonattaining monitors now shows attainment with the 2002-2004 data and is clearly related to the Toledo area, also showing attainment. The following provides support for our request using the monitoring data and the information related to correct use of the designation criteria.

The EPA indicated that the presumptive boundaries for nonattainment areas should be the entire Consolidated Metropolitan Statistical Area (CMSA), set by the U.S. Census Bureau. The MDEQ strongly encourages the EPA to instead use the county PM_{2.5} monitoring data to designate the county attainment or nonattainment. Using this approach and relying on the recent 2002-2004 data, only one county, Wayne, is in nonattainment. For the following reasons we continue to dispute the premise EPA used to include the additional counties.

The PM_{2.5} levels in Southeast Michigan (see Attachment 1) continue to show a downward trend. Several monitors that previously showed violations of the annual PM_{2.5} standard based on 2001 through 2003 values now exhibit attainment based on the 2002 through 2004 values. Only four monitors, all in Wayne County, currently have a design value greater than 15 micrograms per cubic meter, which violates the annual National Ambient Air Quality Standards (NAAQS) (see Attachment 2). Even these monitors show decreasing levels of PM_{2.5} based on the most recent data. The outlying counties of Oakland, Livingston, Macomb,

St. Clair and Washtenaw, as well as Monroe County, are not violating the standard and should be designated attainment.

The monitoring data clearly shows that PM_{2.5} exceedances exist only in the highly industrialized area of Wayne County. This is the same industrial corridor that the MDEQ has been regulating for particulate pollutants for many years. It is not surprising that the PM_{2.5} levels are highest here. It is also not surprising that adjacent counties to the north and west are meeting the NAAQS, since these are not highly industrialized areas.

The wind patterns in Southeast Michigan are indicative of the directional impacts of upwind emissions on the nonattaining monitors in Wayne County. The back trajectory (see Attachment 3) for the highest PM_{2.5} days clearly shows that winds coming from the south and southwest are likely of greatest influence on the violating PM_{2.5} monitors in Southeast Michigan. The EPA's suggestion that winds from all directions have impacts on the high PM_{2.5} days is not supported by the meteorological data for the area.

The EPA indicated during their review of MDEQ's original submittal that the number of vehicle miles traveled (VMT) from the outlying counties was an indication that they contributed to the violating monitors within Wayne County. The EPA explained that the traffic and commuting analysis looks at the number of commuters in each county who drive to another county and the percentage of total commuters in each county who commute to other counties, as well as the VMT for each county. The EPA further stated that a county with numerous commuters would be an appropriate part of the domain warranting inclusion in the nonattainment area. However, as noted in Attachment 4, the majority of VMT within Wayne County come from Wayne County residents. The total incoming VMT from the other counties is less than 35 percent.

The MDEQ has repeatedly stated that the main way to reduce PM_{2.5} levels in southern Monroe County will likely be found in reductions in Ohio. As can be seen in Attachment 5, the Luna Pier monitor closely tracks the Toledo monitor, even more so than it tracks the regional monitor that records emissions coming into the whole region. This strongly suggests that monitored air quality at Luna Pier represents the air mass arriving from Toledo (see Attachment 6 for monitor locations). The new three-year data (see Attachment 7) further confirms this, with the monitors in Monroe County in Michigan and Lucas County in Ohio now demonstrating compliance. A similar downward trend can be seen for the monitors in Lucas County, Ohio and Luna Pier in Michigan (see Attachment 8). The Ohio Environmental Protection Agency has indicated they will be submitting a request to redesignate the Toledo area as attainment. If the EPA decides to grant this request, then the data indicates the EPA should also redesignate Monroe County to attainment.

As indicated in Attachment 9, comparisons of the population data used to exclude Fulton County from alignment with the Toledo CMSA are similar to the values used to include Monroe County in the Detroit area CMSA. We believe that the values should be used consistently for each state. As previously stated by the MDEQ on several occasions, Monroe County should be separate from the Detroit area CMSA. Further, because of the new monitoring data showing attainment for both Luna Pier and Toledo, Monroe County should also now be designated as attainment.

Regarding the level of controls currently within the nonattainment areas, the nitrogen oxides (NO_x) State Implementation Plan (SIP) Call regional controls of NO_x from utilities will

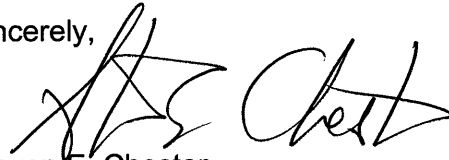
significantly reduce regional levels of NOx and reduce background levels in Michigan. Tier II reductions of mobile emissions will also have a positive impact on reducing PM2.5 levels, as will future diesel rules and multipollutant transport rules. Other than Wayne County, we are monitoring attainment in the counties of Oakland, Macomb, Monroe, St. Clair and Washtenaw. These reductions, in conjunction with the implementation of local controls in the vicinity of the areas violating the standard, will bring Wayne County into attainment. At this time, controls in the surrounding counties are not expected to be necessary to bring Wayne County into attainment.

With tight fiscal budgets due to the depressed state and local economy, the MDEQ must focus its resources on real problems. Time and effort should be spent working with the citizens and stakeholders within Wayne County to bring it into attainment. If controls are determined to be necessary in other counties, the MDEQ will take the necessary actions and is not precluded from instituting them. Retaining the surrounding counties' status as nonattainment would further strain Michigan's resources and economy, and this most recent data demonstrates that to be unnecessary.

In conclusion, the MDEQ requests that the EPA consider this new data and modify their previous decision that subjects the entire CMSA in Southeast Michigan as nonattainment. We respectfully request that the EPA designate only Wayne County as a nonattainment area.

If you have questions or comments, please contact Mr. G. Vinson Hellwig, Chief, Air Quality Division, at 517-373-7069, or you may contact me.

Sincerely,

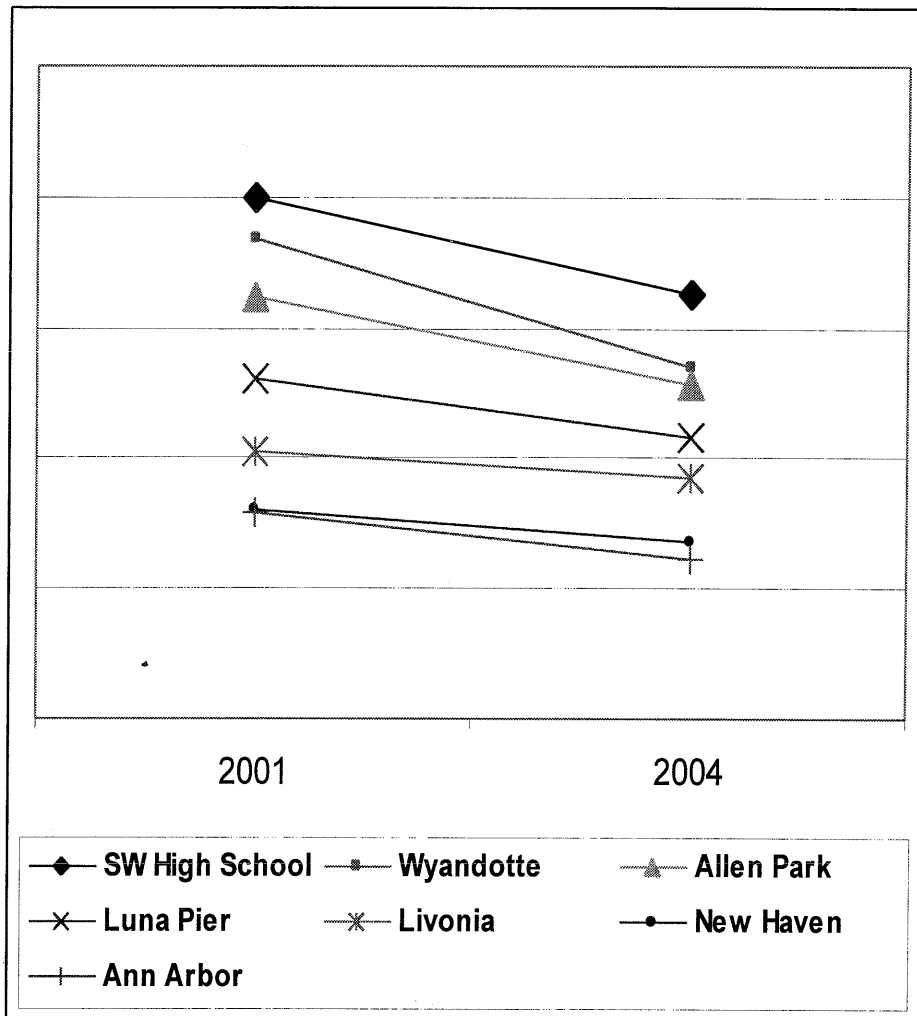


Steven E. Chester
Director
517-373-7917

Attachments

cc/att: Governor Jennifer M. Granholm
Mr. Stephen H. Rothblatt, EPA
Mr. Chuck Hersey, Southeast Michigan Council of Governments
Mr. Jim Sygo, Deputy Director, MDEQ
Mr. G. Vinson Hellwig, MDEQ
Ms. Barbara Rosenbaum, MDEQ
Mr. Robert Irvine, MDEQ
EPA Docket OAR-2003-0061

**Attachment 1: Southeast Michigan
Fine Particulate Trends 2001-2004**



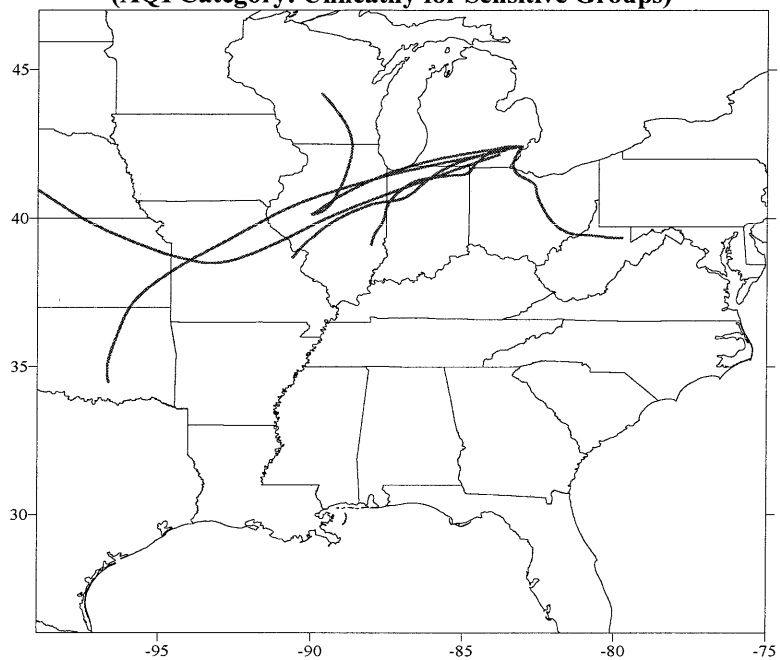
Attachment 2: Southeast Michigan Fine Particulate Monitors 2001-2004

Site	Year	Annual Avg	3-Yr Annual Avg ¹	Site	Year	Annual Avg	3-Yr Annual Avg ¹
New Haven	2001	13.60	13.2	SW HS	2001	18.28	18.0
	2002	13.35	13.5		2002	17.42	17.9
	2003	12.85	13.3		2003	16.69	17.5
	2004	11.36	12.7		2004	15.39	16.5
Luna Pier	2001	15.30	15.2	Linwood	2001	15.72	16.1
	2002	16.26	15.8		2002	15.60	15.6
	2003	13.79	15.1		2003	15.85	15.7
	2004	12.98	14.3		2004	13.69	15.0
Oak Park	2001	14.70	14.7	East 7 Mile	2001	14.50	
	2002	15.00	15.0		2002	15.64	14.9
	2003	14.58	14.8		2003	14.71	15.0
	2004	12.76	14.1		2004	13.23	14.5
Oakland Co.	2001	13.96	13.8	Livonia	2001	14.60	14.1
	2002	13.84	14.0		2002	14.37	14.5
	2003	14.25	14.0		2003	14.20	14.4
	2004	12.11	13.4		2004	12.57	13.7
Port Huron	2001	13.50	13.2	Dearborn	2001	19.61	18.9
	2002	13.57	13.4		2002	19.84	19.9
	2003	13.12	13.4		2003	19.20	19.5
	2004	10.67	12.5		2004	16.83	18.6
St. Clair Co.	2001	14.49	14.3	Wyandotte	2001	18.20	17.4
	2002	14.86	14.5		2002	16.28	17.4
	2003	14.73	14.7		2003	16.32	16.9
	2004	12.87	14.2		2004	13.66	15.4
Ann Arbor	2001	17.25	16.5	Wayne Co.	2001		
	2002	15.96	16.3		2002		
	2003	15.23	16.1		2003		
	2004	14.24	15.1		2004		
Washtenaw Co.	2001	13.50	13.2	Dearborn	2001	19.61	18.9
	2002	13.57	13.4		2002	19.84	19.9
	2003	13.12	13.4		2003	19.20	19.5
	2004	10.67	12.5		2004	16.83	18.6
Ypsilanti	2001	14.49	14.3	Wyandotte	2001	18.20	17.4
	2002	14.86	14.5		2002	16.28	17.4
	2003	14.73	14.7		2003	16.32	16.9
	2004	12.87	14.2		2004	13.66	15.4
Washtenaw Co.	2001	17.25	16.5	Wayne Co.	2001		
	2002	15.96	16.3		2002		
	2003	15.23	16.1		2003		
	2004	14.24	15.1		2004		
Allen Park	2001	17.25	16.5	Wayne Co.	2001		
	2002	15.96	16.3		2002		
	2003	15.23	16.1		2003		
	2004	14.24	15.1		2004		

1. The 3-year Annual Average is based on the averages of the year listed and the two preceding years. The shaded value represents years 2002-2004. Note: The annual NAAQS is 15 µ/m³

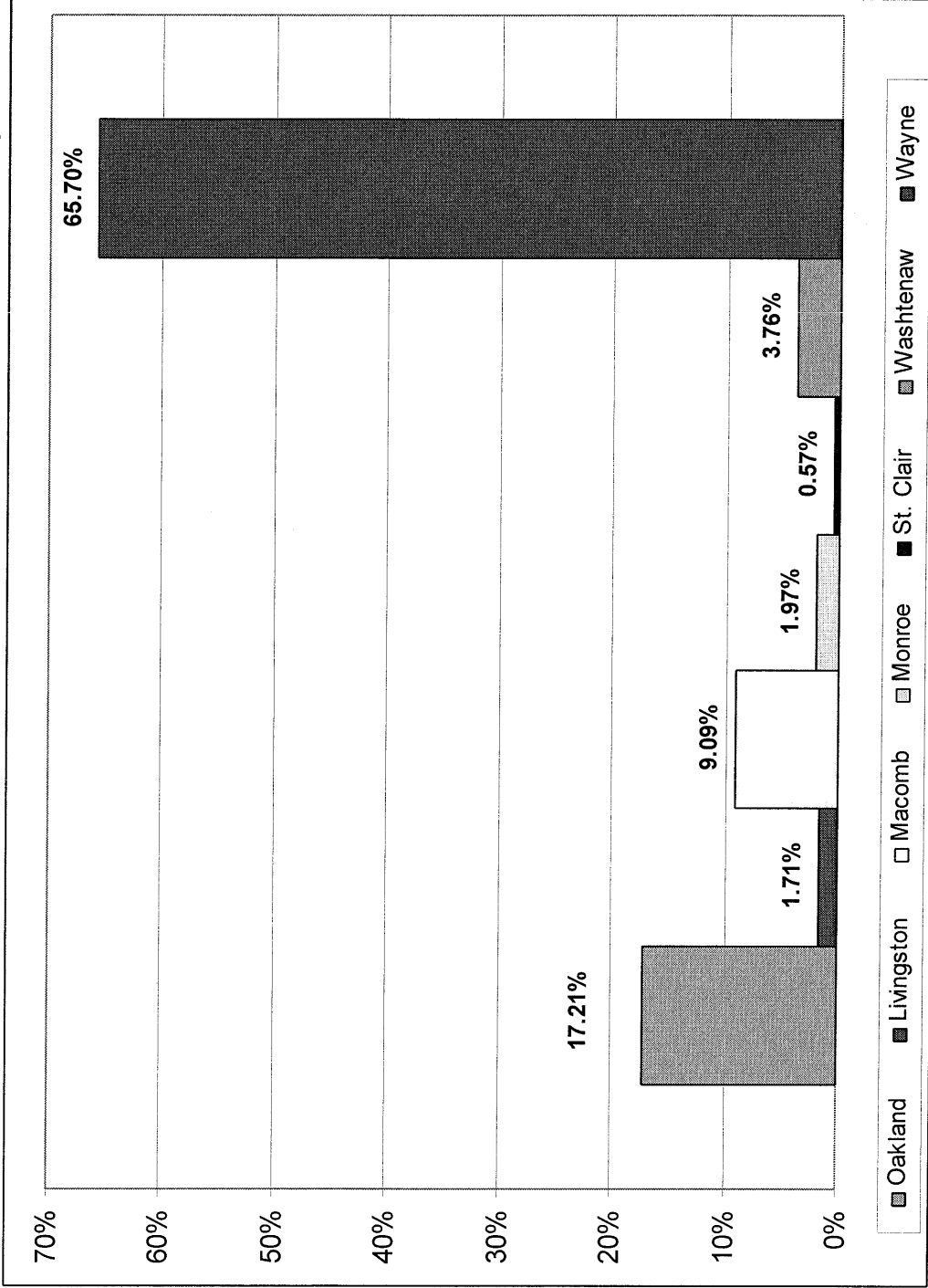
Attachment 3: AQI Unhealthy for Sensitive Groups

**48-Hour Backward Trajectories for Days ≥ 40 $\mu\text{g}/\text{m}^3$ $\text{PM}_{2.5}$
(AQI Category: Unhealthy for Sensitive Groups)**



Note: Trajectories are exclusively biased to the southwest quadrant. Additionally, the data used for the trajectory paths was sorted by daily monitored concentrations.

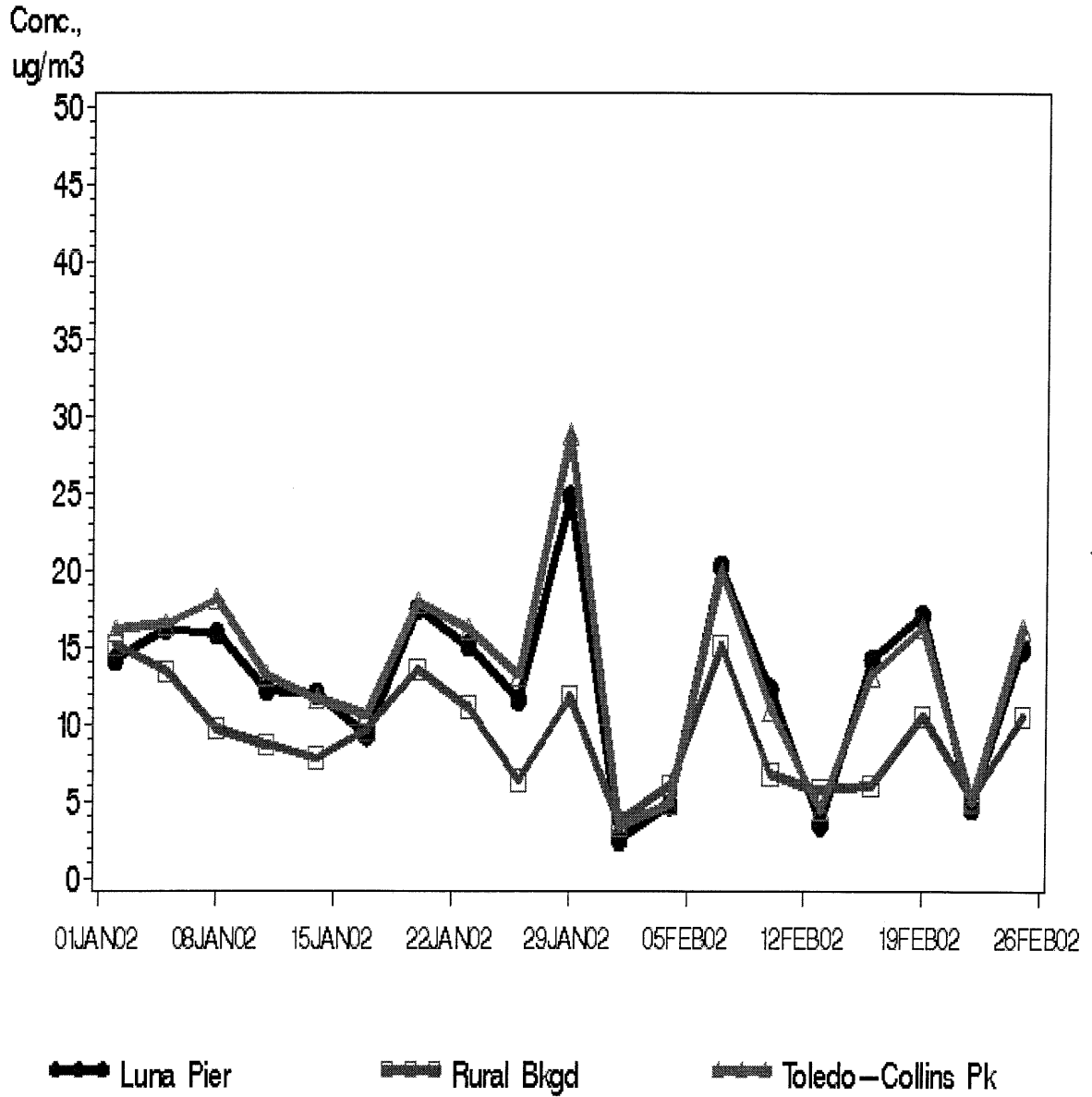
Attachment 4: Percentages of Commuters traveling into and within Wayne County



Note: Total incoming VMT equals 34.3% with the VMT traveled that remain within Wayne County equal to 65.7%. This data was taken from US Census Bureau information.

**Attachment 5: Comparison of Daily PM2.5 Concentrations
of Regional Background, Luna Pier, and Toledo Sites**

Rural Background, Toledo, and Luna Pier PM2.5 Time Series, Winter



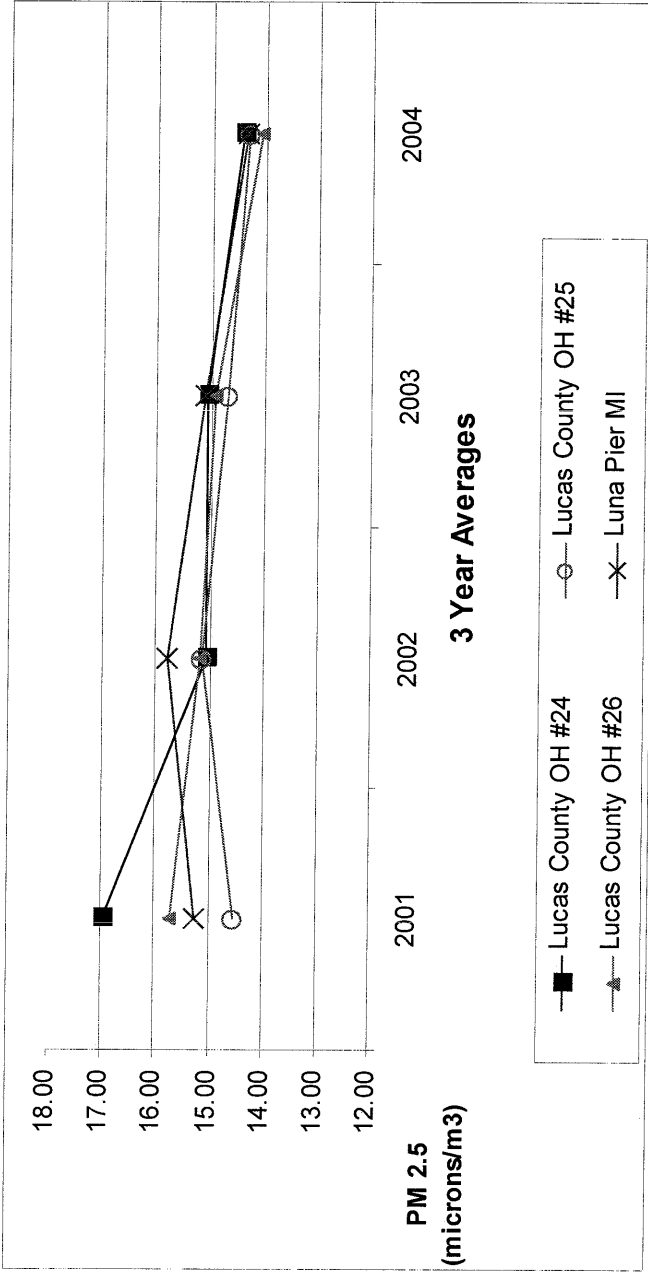
Attachment 6: PM2.5 Monitors in Southeast Michigan and the Toledo, Ohio area



**Attachment 7: Luna Pier MI and Lucas County OH
Fine Particulate Monitors 1999-2004**

Site	Year	Annual	3-Yr Annual
Lucas Ohio # 24	1999	15.7	
Lucas Ohio # 24	2000	19.5	
Lucas Ohio # 24	2001	15.7	16.97
Lucas Ohio # 24	2002	15.0	15.07
Lucas Ohio # 24	2003	14.5	15.07
Lucas Ohio # 24	2004	13.7	14.40
Lucas Ohio # 25	1999	13.5	
Lucas Ohio # 25	2000	15.7	
Lucas Ohio # 25	2001	14.4	14.53
Lucas Ohio # 25	2002	15.3	15.13
Lucas Ohio # 25	2003	14.3	14.67
Lucas Ohio # 25	2004	13.3	14.30
Lucas Ohio # 26	1999	16.5	
Lucas Ohio # 26	2000	15.1	
Lucas Ohio # 26	2001	15.5	15.70
Lucas Ohio # 26	2002	14.9	15.17
Lucas Ohio # 26	2003	14.3	14.90
Lucas Ohio # 26	2004	13.0	14.07
Luna Pier	1999	12.56	
Luna Pier	2000	15.19	
Luna Pier	2001	15.30	15.24
Luna Pier	2002	16.26	15.78
Luna Pier	2003	13.79	15.11
Luna Pier	2004	12.98	14.34

**Attachment 8: Luna Pier MI and Lucas County OH
Fine Particulate Trends 2001-2004**



**Attachment 9: Comparisons of Population Data used in
Fulton County, Ohio versus Monroe County, Michigan**

County	Population	Percent Comparison	Expected Population Growth
Fulton, Ohio	42,573	Fulton to Lucas 9.4%	9%
Lucas, Ohio	453,506		-2%
Monroe, Michigan	149,253	Monroe to Wayne 7.3%	9%
Wayne, Michigan	2,045,540		-2%

Note:

EPA used 2002 population data for Fulton and 2003 data for Monroe. However, all the population data is based on estimated growths by the U.S. Census Bureau.