

ENCLOSURE II

The following jurisdictions are part of the Washington, D. C. metropolitan area and are also part of the existing air quality nonattainment area for the annual fine particulate matter (PM_{2.5}) National Ambient Air Quality Standard (NAAQS):

- Arlington County
- Fairfax County
- Loudoun County
- Prince William County
- Alexandria City
- Fairfax City
- Falls Church City
- Manassas City
- Manassas Park City

These jurisdictions were included in this nonattainment area by EPA despite the fact that all monitors in the area were in compliance with the annual standard at the time of designation, and over the objection of the Commonwealth of Virginia.

To further justify the exclusion of these jurisdictions from any future nonattainment area for the 2006 24-hour PM_{2.5} NAAQS, the following information is presented below:

- Current and future air quality
- Local emissions and reductions
- Area population and traffic trends
- Control of emissions sources

AIR QUALITY DATA

As presented in Enclosure I, all the monitors in the Northern Virginia (NOVA) area are currently in compliance with the daily PM_{2.5} standard. Furthermore, only one monitor in the entire Washington metropolitan area is currently violating this standard by a small amount. This monitor is located in the District of Columbia and has a current design value of 36 µg/m³.

As part of the annual standard planning process, the VADEQ has performed regional modeling for the DC area. This modeling predicts that all monitors in the area will be in compliance with the annual and 24-hour standard by 2009. The maps below show both the current and predicted future status of the Washington area for the daily standard.

Figure 1 – Current (2004-2006) Monitor Status

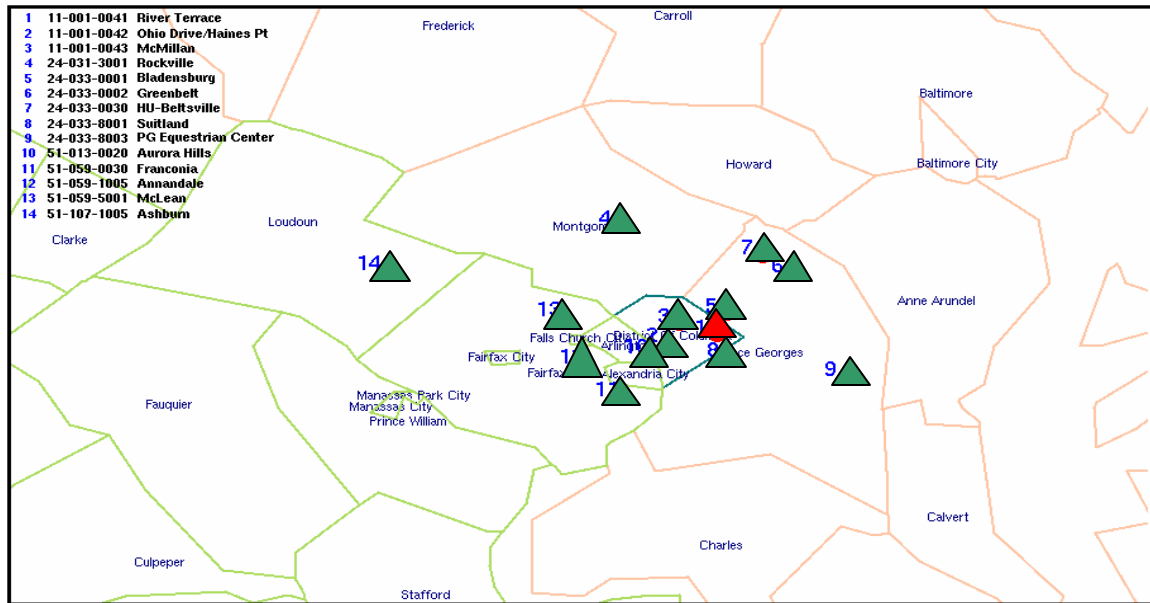
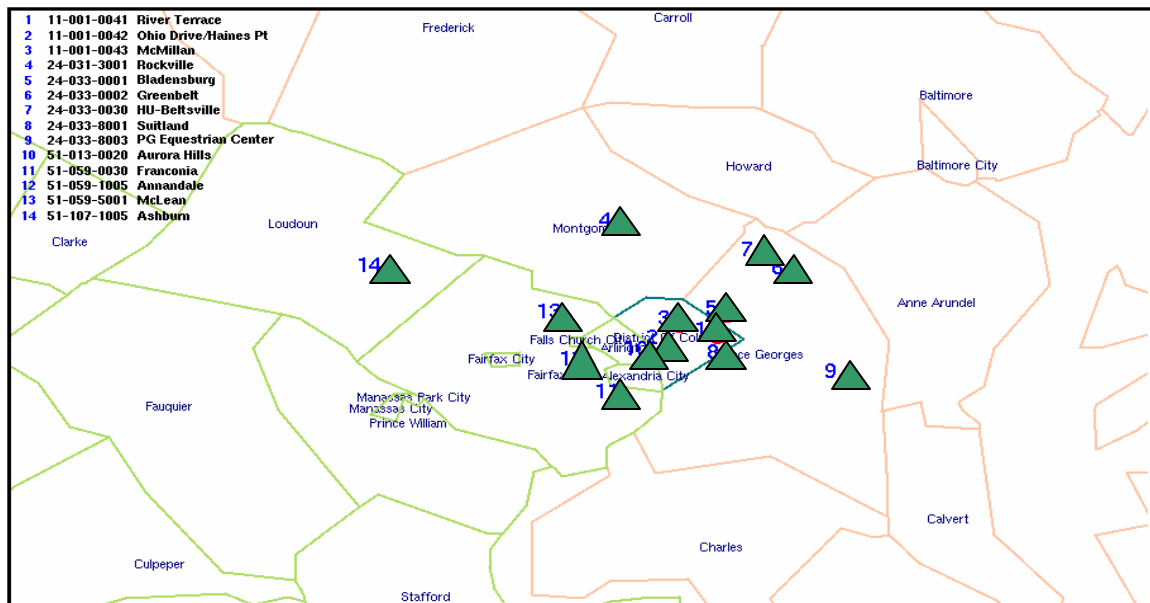


Figure 2 – Future Predicted (2009) Monitor Status



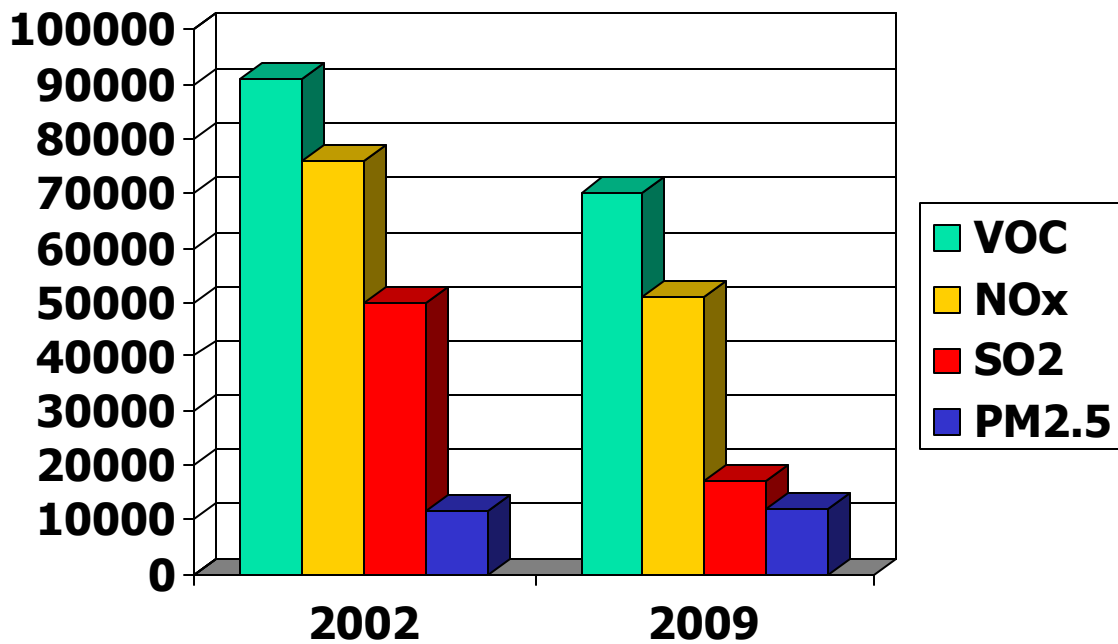
▲ Attainment ▲ Nonattainment

LOCAL EMISSIONS AND REDUCTIONS

Emission of direct PM_{2.5} and the main secondary precursor pollutants of SO₂ and NO_x have dramatically decreased in NOVA since 2002. In point

sources alone, there has been an actual decrease of about 30,000 tons per year of SO₂ and 8,000 tons per year of NO_x in NOVA since 2002. Furthermore these reductions are predicted to continue through 2009. These emission levels are presented in the graph below:

Figure 3 – NOVA Emissions and Emission Reductions (All Sources)



The reduction in SO₂ emissions is of particular note since secondary sulfates is the main contributor to ambient PM_{2.5} levels in the Washington area. VOC emissions continue to decrease which may also benefit the area in reducing the organic carbon contribution to overall PM_{2.5} levels in the area.

AREA POPULATION AND TRAFFIC TRENDS

The NOVA area is one of the fastest growing areas in terms of population in Virginia. This area is also a significant commuter generating area for Washington. As of 2005, the population of NOVA was 2.4 million which represents a 15% increase from the 2000 census.

However, despite this increase in population and associated commuter traffic, motor vehicle emissions have substantially decreased in the area due to federal and state control programs. By 2009, it is predicted that NO_x emissions from mobile sources will be reduced by about 19,000 tons per year, and SO₂ emissions will be reduced by 1,300 tons per year.

CONTROL OF EMISSION SOURCES

Substantial controls have been implemented in NOVA to control PM_{2.5} and precursor emissions.

Point Sources – Significant controls have been applied to the two power generating stations in NOVA. In the case of the Dominion Virginia Power Possum Point Generating Station, a major fuel switching project was completed in 2003 which discontinued all coal operations at this facility. This has resulted in significant reductions in all PM_{2.5} related emissions at this facility. At the Mirant Potomac River Generating Station, controls have been installed to reduce SO₂, NO_x, and particulate matter emissions.

Motor Vehicles – Major controls have also been implemented to reduce PM_{2.5} related emissions from mobile sources. These controls include:

- High-tech vehicle inspection and maintenance
- National low emissions vehicle program
- Tier 2 motor vehicle emissions standards
- Low sulfur gasoline

As mentioned earlier these control programs combine to produce significant reductions in NO_x and VOC emissions, and lesser reduction in SO₂ and particulate matter emissions.

Nonroad Equipment – Controls have also been implemented to reduce PM_{2.5} related emissions from nonroad vehicles and equipment that result in reductions of SO₂, NO_x, VOC, and primary PM_{2.5} emissions. These controls include:

- Nonroad gasoline and diesel engine rules
- Marine engine rule
- Locomotive standards
- Low sulfur gasoline

In addition to these control programs, the VADEQ is in the process of initiating a major multi-million dollar project to retrofit local vehicle fleets and other equipment in NOVA.

Area Sources – A number of control programs have been implemented to further reduce VOC emissions in the DC area. These include AIM coatings, consumer products, auto refinishing, portable fuel containers, and others.