
ANNUAL REPORT ON THE ENVIRONMENT

CHAPTER II

AIR

QUALITY

II. AIR QUALITY

A. ISSUES AND OVERVIEW

1. Introduction

Over the last several years, Fairfax County has demonstrated its commitment to being an active partner in improving the region's air quality. In the past, the Environmental Quality Advisory Council recommended that county staff become more involved in regional planning efforts and that recommendation has been followed. In February 2003 the county executive issued a "Declaration on Air Quality Leadership". Then in the spring of 2003, the Environmental Coordinating Committee chartered an Air Quality Subcommittee composed of cross-agency staff members and tasked them with developing an air quality management plan for the county in cooperation with EQAC. County staff proceeded with this effort and in February 2004 the AQS held a public meeting to present and discuss their conceptual recommendations. Using the county residents input, the committee developed the 2004 Air Quality Protection Strategy Recommendations Report along with a Clean Air Café Menu. These April 19, 2004 documents were presented to ECC, EQAC and the environment committee of the board of supervisors. While EQAC understands that not all of the recommendations can be implemented immediately, EQAC encourages the board of supervisors to implement all of the recommendations in the report. EQAC is pleased with these efforts taken by the BOS and county staff to promote and encourage clean air initiatives and practices. Below is a list of some of the recommendations that have already been implemented. Several of the recommendations were even included as part of the commonwealth of Virginia's Air Quality Severe Area State Implementation Plan submitted March 1, 2004 to meet the Clean Air Act requirements. These efforts clearly demonstrate the board's leadership and commitment to the idea of clean air excellence. Unless otherwise noted, the information shown below was current as of August 2006.

- Diesel retrofits: To date the board of supervisors has approved reprogramming of the electronic controls on certain school bus engines and installation of diesel oxidation catalysts on school buses and other diesel powered county equipment. A contract for the school buses was awarded in April 2004 and the last bus was completed in February 2005. In all, 1,012 buses were retrofitted which is projected to reduce NO_x emissions by 175 tons and hydrocarbon emissions by 30 tons over the remaining life of the buses. Another contract was awarded in June 2005 to install diesel oxidation catalysts on over 100 heavy-duty trucks and this work was finished in February 2006. The next planned diesel oxidation catalyst work will be done on the county's fire trucks. Funding for these efforts came from \$2 million the board of supervisors approved at the FY 2003 Carryover Budget for emission reduction programs along with grant funds totaling \$1.095 million. In addition, funds in the amount of \$1.5 million have been made available for the retrofit of the Connector buses with the catalyzed diesel

particulate filters. Four buses have been retrofitted in a pilot project and 91 more should be complete by the end of 2007.

- **Telework on Code Red Days:** The board of supervisors and the county executive continue to champion this effort on the part of county employees. Approved teleworkers are encouraged to telework on Code Red Days even if they were not scheduled to telework on that day. Currently (May 2005), more than 750 county employees telework two to four days per month. An expansion effort has been underway to raise that number to 1,000 by the end of 2005. Telework expansion reflects the Fairfax County Board of Supervisors' adoption of the regional goal set by the Metropolitan Washington Council of Government – to reach a level of 20 percent of the eligible workforce teleworking one day per week or more by 2005. In order to keep the pressure on to sign-up additional county teleworkers, the county sponsors telework events, recognizes county departments that increase the number of teleworkers, and uses communication tools such as the Employee Courier to feature articles about teleworking and teleworkers.
- **Wind Energy purchase:** Fairfax County has agreed to purchase 5 percent of its electricity from Mountaineer Wind Farm in West Virginia in April 2005. Staff worked with the Virginia Energy Purchasing Governmental Association to change the by-laws to allow this purchase. It is the first wind energy initiative in Virginia. It's a two-year contract and it's a joint purchase with Arlington County. Fairfax County's cost is \$82,000 per year along with the shared \$15,000 cost for negotiation expenses. The projected emission reductions are 6.3 million pounds of CO₂, 23,200 pounds of SO₂ and 11,600 pounds of NO_x. The board of supervisors recently approved funding to continue the wind energy purchase with a new two-year contract to be bid in 2007.
- **Participation as a Clean Air Partner:** Fairfax County government has been a member of Clean Air Partners, a regional public-private partnership chartered by the Metropolitan Washington Council of Governments and formerly known as ENDZONE since 1998. Its mission is to build awareness of how individuals contribute to air pollution and to promote easy and effective voluntary actions those individuals and employers can take to reduce air pollution and improve the health and quality of life in the region. In the spring of 2005, the Office of Public Affairs and the Health Department joined with Clean Air Partners in the "2005 Clean Air Action" media campaign. As a Clean Air Partners sponsor, during the summer months, Fairfax County will be included with other Clean Air Partners in a comprehensive public outreach campaign through radio and television spots, print ads, fliers, promotional materials and Web site links on its Web site. This effort is to build awareness and teach people how their actions contribute to air pollution. The goal is also to promote easy and effective voluntary actions people can take to reduce air pollution and improve their health and quality of life in the region.

- Air Quality outreach: The county has been proactive in its efforts to inform county employees and residents about air quality programs and ways to reduce air pollution. The Office of Public Affairs and the Health Department have been working together to create public education materials about the dangers of ground-level ozone and particle pollution, and actions that county employees and county residents can take to promote cleaner and healthier air in this region. Materials they've developed for adults and children are being distributed in government offices, libraries, recreation centers, community meetings and at many outreach events such as the county fair, *Celebrate Fairfax*. In addition articles on air quality have been distributed through internal county publications and external outreach, including NewsLink, Web sites, cable Channel 16 and homeowners associations. The county also has a notification program that involves the posting of Air Quality Action Day forecasts on Fairfax County Government Cable Television Channel 16 and the county Web site, as well as sending e-mail notifications to all county employees. These messages include appropriate actions to take to reduce contributions to ozone formation. Some actions currently practiced by Fairfax County government when a Code Red Day for ozone is forecast include: the refueling of vehicles after sunset; the restriction on the use of non-essential motorized operating equipment; encouraging employees to telework and teleconference to participate in meetings; and the offering of free trips on the Fairfax Connector buses.
- Use of low volatile organic compound paints: Besides reducing emissions of ozone-forming compounds, low-VOC paints improve indoor air quality by reducing eye or respiratory irritation caused by exposure to paint fumes.
- Episodic ban on the use of VOC-containing paints and pesticides: Deferring the use of VOC-containing paints and coatings on Code Red Days for ozone will reduce VOC emissions (an ozone precursor) and overall ground-level ozone formation. Both the active and inert ingredients of many pesticides are reactive in the formation of ozone. Under this policy, county and contractor applications of pesticides would be deferred on Code Red Days for ozone.
- Episodic ban on the use of gasoline powered lawn and garden equipment: County and contractor mowing and trimming operations will be deferred on Code Red Days for ozone, except on specialized turf areas at the golf courses and athletic field complexes. The county will continue a replacement policy to purchase low-emissions lawn and garden equipment that reduces ozone precursor emissions.
- Episodic ban on the refueling of non-essential gasoline powered cars and equipment: County employees have been notified that they are not to refuel their gasoline powered vehicles and equipment on Code Red Days for ozone until after dusk unless refueling is needed for emergency or vital functions. In order to monitor the effectiveness of this measure, a report of any refueling that occurs on a Code Red Day will be given to agency directors the next day enabling follow-up action without restricting vital functions that require refueling.

- **Best Practices in Pesticide Application:** The Fairfax County Park Authority has implemented an integrated pest management program at golf facilities and athletic field complexes. The Park Authority's approach to select pesticide applications is one of prevention rather than a curative one. This approach greatly reduces the amount of product (VOC emissions) required to keep turf healthy and allows the IPM program to be more effective.
- **Alternative Fueled Vehicle Purchases:** The county favors purchase of low-emission hybrid drive vehicles when appropriate for replacement of vehicles being retired. The current county fleet has 90 hybrid-electric vehicles (59 Toyota Prius, 30 Ford Escape sport utility vehicles and one plug-in hybrid).
- The county has been improving energy efficiency in its buildings and staff has completed numerous heating/ventilation/air conditioning and lighting upgrades with a projected energy savings of 6,630,675 kwh over a two-year period.
- The county is uses green building practices in most of its new buildings and renovation projects. In addition the county has numerous tree preservation and planting efforts (see the Ecological Resources chapter of this report).

EQAC is encouraged by this and feels that the county is moving in the right direction.

a. Clean Air Interstate Rule – Help Reduce SO₂ and NO_x

On March 10, 2005 the U.S. Environmental Protection Agency issued the Clean Air Interstate Rule, which is expected to achieve the largest reduction in air pollution in more than a decade. CAIR will be effective starting July 11, 2005 and it requires 28 eastern states (including the states in the Metropolitan Washington region) to permanently cap emissions of sulfur dioxide and nitrogen oxides. This rule was put into place to address the fact that EPA has determined that upwind states are contributing significantly to nonattainment of 8-hour ozone and fine particulate/PM_{2.5} standards in downwind states. Implementation of the rule should assist nonattainment areas in achieving the National Ambient Air Quality Standards. States covered by CAIR, including Virginia, must submit state implementation plans including control measures to reduce emissions of NO_x and SO₂. EPA is requiring that emissions reductions be implemented in two phases. The first phase of NO_x reductions start in 2009 (covering 2009 – 2014) and the first phase of SO₂ reductions start in 2010 (covering 2010 – 2014). The second phase of reductions for both NO_x and SO₂ starts in 2015. The required emissions reductions requirements are based on controls that are known to be highly effective. When fully implemented, this rule is expected to reduce SO₂ emissions by over 70 percent and NO_x emissions by over 60 percent from 2003 levels. So the hope should be, as we have stated in the past, that we would see something in the neighborhood of a 20 percent reduction in NO_x for Fairfax County as a result. These reductions are an important part of the Washington region's SIP, a plan to reduce air pollution in our region. Actual reductions in the metropolitan area along with reductions of

transported NO_x will be critical to attaining the federal standard during ozone season. This EPA action provides for the NO_x SIP Call cap and trade program to be replaced by the CAIR ozone-season NO_x trading program. The Virginia Department of Environmental Quality hopes to have this regulation approved by the State Air Pollution Control Board by the end of 2006. The rule includes a voluntary public health set-aside that affected plants can donate excess emission credits to. The proposed rule also has an efficient energy/renewable energy set-aside, which could allow the county to get emission credits for its wind energy purchase and energy efficiency programs in county buildings. These credits would then be retired, lowering the allowable emissions in the state. The state would also be able to use these control measures in the SIP, demonstrating further progress toward meeting the ozone standard.

This rule also includes revisions to the Acid Rain Program regulations streamlining the operation of the Acid Rain SO₂ cap and trade program. The effective date for the Acid Rain Program change is July 1, 2006. This EPA action provides for the NO_x SIP Call cap and trade program to be replaced by the CAIR ozone-season NO_x trading program.

A primary concern that we have with this rule is that it allows trading of emission credits and, as a result, emission reductions on a point source basis cannot necessarily be predicted. There are four major power plants in the Washington area and it is our understanding that in some, if not all, of these cases those power plants are emitting considerable quantities of NO_x in this area as a result of decisions to purchase emission reduction allowances outside of the Washington Metropolitan air shed.¹ A particular concern for the Washington area is the Potomac River Generating Plant in Alexandria. Because the plant produced NO_x emissions in 2003 well in excess of its state operating permit, the Virginia Department of Environmental Quality pursued enforcement actions against the plant. In a joint federal-state settlement in May 2006, Mirant Mid-Atlantic agreed to annually eliminate nearly 29,000 tons of harmful NO_x pollution generated by its four electricity generating plants in Maryland and Virginia. The commonwealth of Virginia, in consultation with the Department of Energy, is addressing particulate matter impacts from the Potomac River Generating Plant through a separate proceeding.

Although it should not theoretically have any direct impact on the overall effect of the CAIR, the implications of New Source Review reform are also of concern to us since those reforms may result in additional generation of NO_x at some coal burning facilities in the future.

¹ Three of these plants are in Maryland (Morgantown, Chalk Point and Dickerson) and one is in Virginia (the Potomac River Generating Plant in Alexandria).

b. Planning for the New Eight-Hour Ozone and Particulate Matter Standards

EPA published final non-attainment designations for the eight-hour ozone standard in April 2004. The Metropolitan Washington area, which includes Fairfax County, was designated a moderate non-attainment area. EPA revoked the one-hour ozone standard on June 15, 2005 and the 8-hour ozone standard is now in force. The Metropolitan Washington region must develop a new SIP and submit it to EPA by June 2007 showing how it will attain the eight-hour ozone standard by 2010. The Metropolitan Washington Air Quality Committee, the air quality planning group for the Washington region, along with its Technical Advisory Committee has been working on a plan for development of the eight-hour SIP and identification of additional emission control measures. On May 31, 2005, Virginia Governor Mark Warner, Maryland Governor Robert Ehrlich, Jr. and D.C. Mayor Anthony Williams signed a Memorandum of Understanding creating the **Interstate Air Quality Council**. The Council consists of six members: the secretaries of the environment and transportation from each of the three governments. The IAQC will provide overall guidance and streamline planning to ensure the states and the District meet their shared goals of improved air quality, including compliance with new federal standards for ozone and fine particulates, and efficient transportation. The IAQC will work in concert with the air quality and transportation committees of the Metropolitan Washington Council of Governments to achieve its goals. All of this serves to make the point that the advent of the eight-hour standard continues to leave little doubt that this new standard will inevitably make air quality management activities in the county considerably more difficult.

In December 2004, EPA designated the Metropolitan Washington region as a non-attainment area for fine particle pollution, also known as PM_{2.5}. The designation became effective on April 5, 2005. Nonattainment areas are required by early 2008 to submit a SIP to EPA defining the expected methods for reducing the fine particulate matter level in the air and emissions of PM_{2.5} precursors. MWAQC and TAC will start planning efforts to meet this standard soon. They are still awaiting guidance documents at this time.

In 2005, the county once again had exceedances of the eight-hour ozone standard and there were more days with exceedant levels than in 2003 and 2004. However, amazingly, there were no exceedances of the one-hour ozone standard. As the county moves away from the one-hour standard and into the eight-hour standard, the direct implications of chronic nonattainment, especially of the eight-hour standard, will become a much more serious matter in the region. Fairfax County must continue to work with the MWAQC to develop control measures that can be implemented in the region to attain compliance with the ozone standard.

c. Severe Area SIP Planning

On May 13, 2005, the Environmental Protection Agency approved Virginia's one-hour "Severe Area SIP". In February 2004, MWAQC approved the new "Severe Area" SIP for submittal (by March 1, 2004) to EPA by Maryland, Virginia and the

District. Upon its redesignation as a “severe” non-attainment area in February 2003, the Washington region was required to prepare a new SIP to show compliance with the more stringent severe area requirements. An interim SIP submittal in August 2003 fulfilled some of these requirements. The rest of the requirements were fulfilled by the March 2004 submittal. The new SIP includes an updated attainment demonstration reflecting revised MOBILE6-based motor vehicle emissions budgets, the demonstration of 3 percent per year rate of progress from 1999-2002 as well as from 2002-2005, the adoption of contingency measures for failure to make ROP during those periods, and the submission of Reasonably Available Control Measures. There are other requirements as well.

In developing this SIP, the MWAQC identified a series of control measures that it feels will allow the region not only to demonstrate progress toward, but in fact to attain, the ozone National Ambient Air Quality Standards by November 15, 2005.² These include new regulations requiring redesigned fuel containers, low-VOC paints and consumer products and changes to certain business practices that result in high VOC emissions. Most of these regulations are in place and have been implemented in the region.

An additional portion of the region’s emission control strategy is a “voluntary bundle” of emission reductions from innovative programs implemented by local governments. These programs include a gas can exchange, use of low-VOC paints, purchase of wind power, retrofitting of diesel school buses and purchases of alternative fueled vehicles. Fairfax County was a leader in committing to implement many of these critical programs.

d. Conformity Planning Requirements and Status

The purpose of the air quality conformity analysis is to assure that planning for transportation activities is consistent with air quality attainment / management targets. In non-attainment areas such as the metropolitan Washington area, the Constrained Long Range Plan for transportation and Transportation Improvement Program cannot be fully implemented if, collectively, the projects included in them result in emissions (of certain criteria pollutants) in excess of the limits established by the region’s air quality plan, the state implementation plan.

The Metropolitan Washington region was previously designated as a severe non-attainment area, under the one-hour ground level ozone standards. The region had to demonstrate attainment of the standards by November 2005. The region developed a plan to do this and established limits on emissions of volatile organic compounds and nitrogen oxides from the transportation (mobile) sector. The one-hour ground level ozone standard was revoked in June 2005 and replaced with a tougher, eight-hour ground level ozone standard. The region did demonstrate attainment of the one-hour ground level ozone standard by November 2005.

² The details of this SIP, such as they are, can be reviewed on the COG Web site at www.mwcog.org/environment/air.

The region is classified as a moderate non-attainment area under the new eight-hour standard and has until June 2010 to demonstrate attainment of the standard. The region is currently developing a new plan to demonstrate attainment, which will establish new limits of VOC and NO_x emissions from the transportation sector. The current schedule calls for the plan to be completed and submitted to the state air agencies, which must submit it to the U.S. Environmental Protection Agency by June 15, 2007. The region has continued to perform the conformity analysis on its CLRP and TIP. Per US EPA's conformity regulations, the emissions limits set in the one-hour ozone plan is being used to demonstrate conformity. Once new emissions limits are set by the eight-hour SIP, transportation plans and programs will have to conform to these new limits. It is expected that the new limits on VOC and NO_x emissions limits will be lower than those set under the one-hour plan.

Additionally, in December 2004, EPA designated the Metropolitan Washington region as nonattainment of the standards for another criteria pollutant, Particulate Matter (expressed as "PM_{2.5}"). The Metropolitan Washington region will have to demonstrate attainment of the PM_{2.5} standards by April 2010. The region's SIP to attain the PM_{2.5} standards is due to the US EPA by April 2008. The designation as a PM_{2.5} non-attainment area had an immediate affect on transportation planning in the region in that it had a one-year grace period, starting April 5, 2005, in which to demonstrate the PM_{2.5} emissions from transportation sector would not be increasing in future years. If such a conformity demonstration were not completed by April 6, 2006, the CLRP and TIP would have lapsed. This would have halted further federal funding and approval of transportation improvement projects. The Transportation Planning Board, the designated Metropolitan Planning Organization for the region, working with the Metropolitan Washington Air Quality Committee and all three air agencies in this region, and following the U.S. EPA guidelines for conformity analysis, completed its PM_{2.5} conformity analysis in December 2005. This analysis was approved by the Federal Highway Administration and the Federal Transit Administration in February 2006.

The region has plans to develop a detailed plan to demonstrate attainment of the PM_{2.5} standards. This plan will establish new limits on the amount of PM_{2.5} emissions from transportation sector. Once this PM_{2.5} plan is finalized, the region will have to limit PM_{2.5} emissions from the projects in the CLRP and TIP to these new levels.

2. Air Quality Status in Northern Virginia

a. Ground-level Ozone

The Metropolitan Washington area, including Fairfax County, was classified as a severe non-attainment area for the one-hour ozone standard and a moderate non-attainment area for the eight-hour ozone standard during 2004. To obtain compliance with the eight-hour standard, the three year average of the fourth-highest daily maximum eight-hour average value at each monitoring site in a region must not exceed 0.08 ppm.

b. Ozone Exceedances in 2005

Attainment of the ozone standard in the Metropolitan Washington area will require each monitoring site in the region to have a three-year average of the fourth-highest daily maximum 8-hour average of data not to exceed 0.08 ppm.

Monitors in Fairfax County recorded violations of the eight-hour ozone standard on twelve days during the 2005 ozone season. Violations occurred at four different county monitoring sites. The Washington region registered nineteen days with violations of the eight-hour standard during the 2005 season.

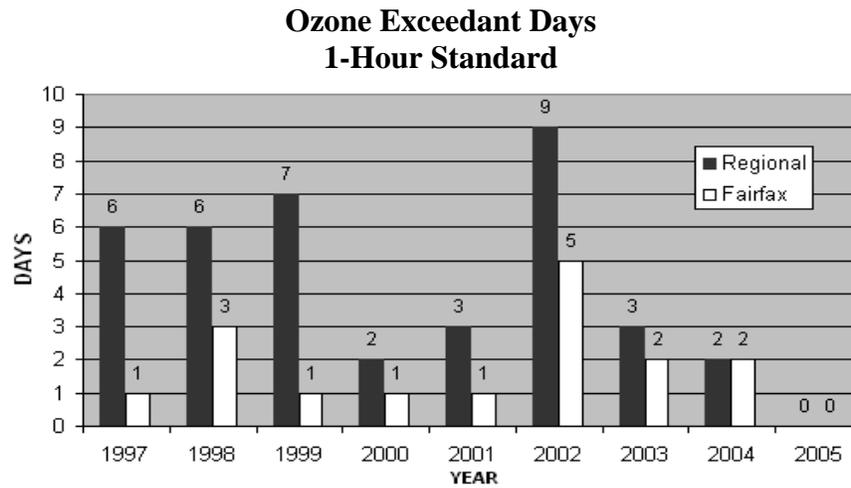
Obviously it is going to be very challenging for the region to meet the eight-hour standard. It will not be easy to implement additional control measures for this region, but they will be necessary to reach attainment of the standard. It is hopeful that CAIR will help reduce ozone transport into the region, but staff will have to continue to work with EPA and regional planning groups to ensure that transport is controlled in any way possible.

c. Air Quality Trends

The Metropolitan Washington Council of Governments analyzes monitored air quality data in the metropolitan region. In a recent news release (dated September 2006), COG states that the air quality in this region is improving. COG reports that ozone levels have decreased over the past decade, even on hot, dry summer days when ozone most often forms. In addition, air quality monitors throughout the region have measured lower concentrations of ozone and more monitors are now in compliance with the standard. COG stated that the metropolitan Washington region now has 44 percent fewer days of air pollution from ground level ozone since 2003 than it did in preceding years. The region has made great strides reducing the emissions that cause ozone. Emissions of nitrogen oxides, which are found in vehicle exhaust and power plant emissions, have decreased. Cleaner fuels are helping and increased controls placed on power plants since 2003 have helped immensely. In the same time period, emissions of volatile organic compounds from chemical solvents, paints and gas cans have also been reduced. The region's air quality continues to be significantly affected by ozone emissions transported into the region from other areas. The new Clean Air Interstate Rule should help reduce ozone transport.

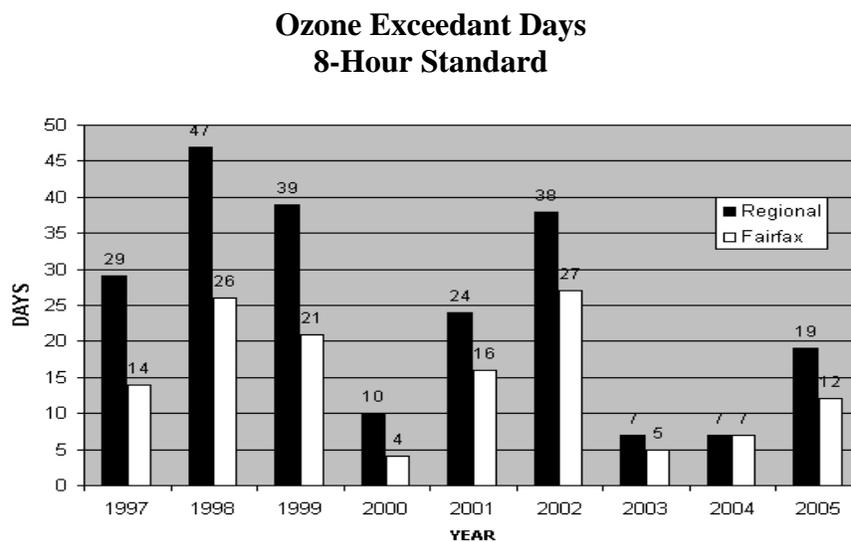
According to COG and the Fairfax County Health Department, there were no one-hour ozone exceedances in 2005 in either Fairfax County or the Metropolitan Washington Region (Figure II-1). However, the eight-hour ozone standard is making it more difficult for the region to meet the federal standard (Figure II-2, Figure II-3 and Table II-1). This indicates that the county cannot afford to reduce or diminish its air quality planning efforts.

Figure II-1: Air Quality Trends in Relation to a One-Hour Ozone Standard



Source: Fairfax County Health Department

Figure II-2: Air Quality Trends in Relation to an Eight-Hour Ozone Standard



Source: Fairfax County Health Department

**Figure II-3: Air Quality Trends in Relation to an Eight-Hour Ozone Standard
(continued)**

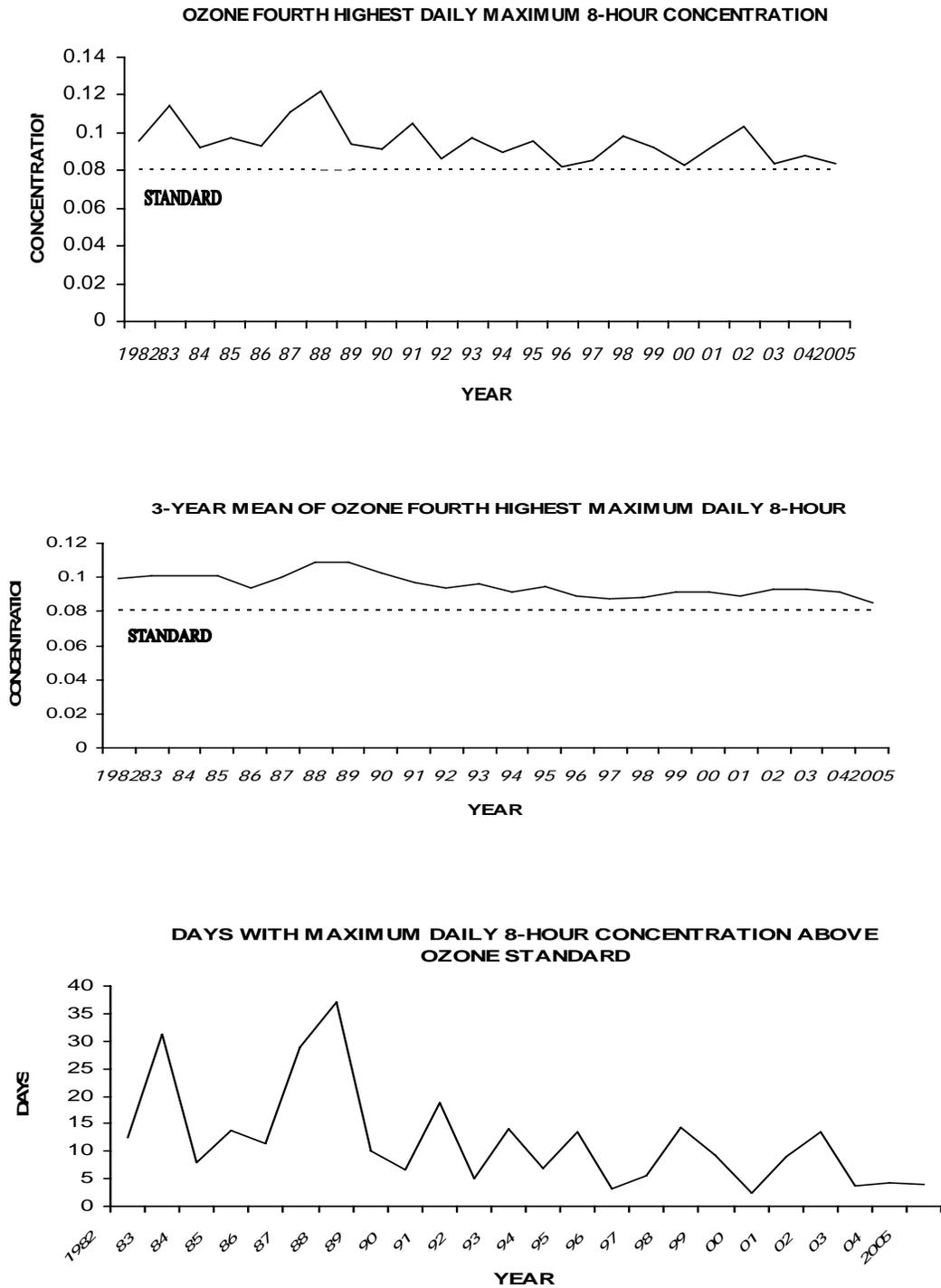
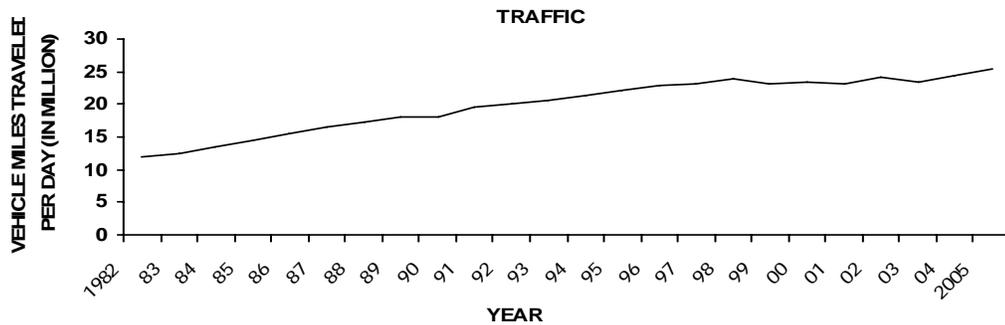


Figure II-3 (Continued)



Source: Fairfax County Health Department/Fairfax County Monitoring Sites, VDOT

Table II-1: Regional Eight Hour Ozone Exceedances, 2005		
Date	Number of Stations that Exceeded the Standard	Max. Values in the Metropolitan Statistical Area; Max. 8-Hour Ozone (ppm)
June 25	1	0.087
June 26	1	0.086
June 30	1	0.091
July 1	1	0.086
July 12	2	0.100
July 20	1	0.088
July 21	1	0.093
July 22	1	0.094
July 26	5	0.097
August 2	1	0.089
August 3	3	0.097
August 4	8	0.097
August 5	10	0.094
August 6	2	0.088
August 11	5	0.094
August 12	3	0.088
August 13	2	0.088
September 9	1	0.088
September 12	1	0.086

Source: Metropolitan Washington Council of Governments.

B. MAJOR PUBLIC AGENCY RESPONSIBILITIES

1. Introduction

Although compliance with National Ambient Air Standards and resulting air quality management responsibilities is a function of federal law, in Fairfax County we have a situation where these responsibilities have been split between the commonwealth of Virginia and the regional metropolitan planning organization. MPOs are set up under the CAA in metropolitan areas with populations in excess of 50,000. In more difficult situations, MPOs are multi-jurisdictional, as is the case in the Washington MPO. Members of MPOs are appointed by the governors and mayors of affected jurisdictions to represent areas included in the MPO. The MPO works with state departments of transportation and transit providers in identifying transportation needs and priorities. They make transportation investment decisions for the metropolitan area and, by default, for the individual regions encompassed within the MPO.

2. Commonwealth of Virginia

a. Virginia State Air Pollution Control Board

This board is authorized to propose policies and procedures for air quality regulatory programs, including emissions standards for landfills and vehicles.

b. Department of Environmental Quality

This Department is responsible for establishing standards for air quality monitoring and vehicular inspection and maintenance programs.

c. Virginia Department of Transportation

This department is responsible for planning, developing, delivering and maintaining transportation for the traveling public.

3. Region – The Metropolitan Washington Council of Governments, the Metropolitan Washington Air Quality Committee and the National Capital Region Transportation Planning Board

COG is the Metropolitan Washington regional planning group that works toward solutions to regional problems related to air and water quality, transportation and housing. COG also manages other programs such as those responsible for forecasting demographic changes. The MWAQC, which is a part of COG, is responsible for all air quality planning in the Metropolitan Statistical Areas identified under Section 174 of the CAA. The authority of MWAQC is derived from the certifications made by the Governors of Virginia and Maryland and the Mayor of the District of Columbia. MWAQC was established to conduct interstate air quality attainment and maintenance

planning for the Metropolitan Washington region. Members are appointed and Fairfax County currently has three members of the board of supervisors on the committee. In 2005, Dana Kaufman is chairman of MWAQC. The TPB serves as the designated MPO for the Washington region and is responsible for regional transportation planning and conformity. The TPB is staffed by the Department of Transportation Planning, which is part of COG. Members of the TPB are appointed, and Fairfax County currently has two members of the board of supervisors sitting on the TPB. TPB and MWAQC work together on air quality and transportation issues. COG is also responsible for issuing air quality indices on a weekly basis.

a. MWAQC Technical Advisory Committee

This Committee was established to advise and assist MWAQC in planning for and maintaining the region's air quality. Members review technical issues and documents before they are submitted to MWAQC for review and approval. The chairman of the committee for 2005 is Tad Aburn, Maryland Department of the Environment. In 2006 Jim Sydnor, Virginia Department of Environmental Quality will serve as chairman.

b. Interstate Air Quality Council

On May 31, 2005, Virginia Governor Mark Warner, Maryland Governor Robert Ehrlich, Jr. and D.C. Mayor Anthony Williams signed a Memorandum of Understanding creating the Interstate Air Quality Council. The Council consists of six members: the secretaries of the environment and transportation from each of the three governments. The IAQC will provide overall guidance and streamline planning to ensure the states and the District meet their shared goals of improved air quality, including compliance with new federal standards for ozone and fine particulates, and efficient transportation. The IAQC will work in concert with the air quality and transportation committees of COG to achieve its goals.

c. Forecasting Subcommittee

This Subcommittee considers how to monitor and report the new eight-hour ozone standard and how to devise guidelines for issuing health alerts during the ozone season.

d. Attainment Subcommittee

This Subcommittee considers evidence for the case that the Washington non-attainment area can attain the eight-hour ozone standard with the control measures already adopted.

e. Conformity Subcommittee

This Subcommittee reviews Air Quality Conformity Determinations prepared by the TPB to ensure that regional transportation plans are consistent with plans to improve air quality. This includes verifying that estimated emissions from mobile sources, such as cars, trucks and buses, do not exceed the mobile budget, a cap on regional mobile emissions contained in the region's air quality plan.

e. Air Quality Public Advisory Committee

This Committee has been set up to provide a vehicle to brief residents on actions pending before MWAQC. This Committee functions as an important source of feedback from the public on air quality concerns in the metropolitan area.

f. Control Measures Workgroup

This workgroup was established to research control measures and develop a plan of emission reducing control measures for the region to implement in an effort to reach attainment for ozone. With the recent designation of PM_{2.5} nonattainment, this group will probably add emission reducing control measures for attainment of this standard to its duties.

4. County of Fairfax**a. Department of Health, Division of Environmental Health, Air Quality Module**

This Division is authorized by the Fairfax County Code, Chapter 103, in cooperation with federal and state agencies, to conduct an air monitoring program. In the past, this Division has provided consultative services to those requesting assistance in indoor air quality issues and other air quality-related matters. If there is a substantial threat to public health, on-site investigations are supposed to be provided concerning indoor air quality and exposure to toxic substances in non-occupational, indoor environments. A representative from the Health Department now sits as a member of the MWAQC Technical Advisory Committee and functions as a conduit to communicate with the county on air quality issues of concern to MWAQC. At the present time, the Air Quality Program Manager represents Fairfax County on this committee.

During a time of increasing responsibility to coordinate and manage the increasingly complex body of information relevant to air quality planning in Fairfax County, EQAC is pleased that an Air Quality Program Manager position has been filled to work on planning issues. The Air Quality Section continues its monitoring network in the county measuring levels of criteria pollutants in an effort to measure compliance with the National Ambient Air Quality Standards. All of the monitoring data obtained from these sites goes into the National Air Quality Database.

b. Department of Transportation

This agency is responsible for the planning and the coordination of improvements that reduce both congestion and the vehicle miles traveled.

C. PROGRAMS, PROJECTS AND ANALYSES

1. Regional Air Quality Planning

In response to our recommendation in 2002 that the county establish air quality planning capabilities in the Health Department, the decision was made to fill an Air Quality Program Manager position, which was filled in February 2005. This staff member is working with the Director of Environmental Health and the Environmental Coordinator to manage air quality efforts on behalf of the county. Those efforts are evolving and EQAC is involved, in a limited way, in reviewing and advising with respect to those activities. EQAC will continue to do everything it can to try to cooperate with the county in their efforts to identify short-term strategies that can result in compliance with the ozone NAAQS.

D. CONCLUSIONS AND OBSERVATIONS

1. In August of 2002, at the request of the deputy county executive, EQAC provided a summary of our concerns regarding air quality management needs in Fairfax County that included recommended staffing needs and related job description(s). We concluded our observations at that time by stating that "...planning capability will mean nothing unless the results of that capability can be adequately integrated into county activities." In November 2002, at about the time that we released our 2002 Annual Report recommending the hiring of a full-time air quality planner, the county embraced a two-track approach to air quality management that culminated in a series of announcements at the February 12, 2003 ECC/EQAC meeting dealing with air quality management. Since that time, EQAC interaction with the county has occurred principally through our interactions with the ECC and for the most part has been focused on long-term issues associated with the management of land-use/transportation issues associated with the Comprehensive Plan. This seems primarily to have been an outgrowth of our concerns about the possible relevance in Fairfax County of the concept of "Smart Growth". Meanwhile, in 2003 the county developed its own approach to air quality planning, and following discussions with MWAQC, developed an Air Quality Subcommittee designed to develop recommendations for the ECC and BOS on local and regional air quality issues. In April of 2004, the AQS presented its recommendations to the BOS Environmental Committee. EQAC is pleased with the work of the Subcommittee that included a variety of air quality management strategies as shown in the interim report and Clean Air Café menu that was presented to the board's Environmental Committee. Many of those strategies have already been

completed and EQAC recommends that the board adopt and implement all of the recommendations shown in the menu and report.

2. We seem to be at an interesting point with respect to air quality management in Fairfax County. It is laudable that the county is now focused on the issue of air quality management and is working with COG and others involved in regional planning. We are especially pleased that the county has come forward with SIP (VOC and NOx) emission reduction strategies for both short-term ozone action days and long-term ongoing initiatives. These efforts played a significant role in the Washington region's ability to develop and submit a severe area SIP that has been more acceptable to the EPA. The pattern of ongoing violations, however, discloses a problem that requires reductions that must have impacts on the actual attainment of the standard. We understand that regional planning is taking place to develop control strategies to address this problem and we suggest that the county stay involved in this process.
3. Based on the discussions that have occurred between EQAC, the ECC and the Planning Commission, we understand the problems and concerns and even the limitations associated with the long-range nature of land use planning as it relates to transportation and air quality. We will continue to interact in that venue to try to constructively address the issues that have been discussed there. Meanwhile, we continue to welcome the opportunity to be as interactive as possible with the Air Quality Subcommittee and its activities.

E. COMMENTS

EQAC reiterates and updates its recommendations from the 2005 Annual Report on the Environment:

1. County staff should continue to participate in the regional planning efforts through the Metropolitan Washington Council of Governments in identifying both quantifiable and qualifiable emission reduction measures and strategies to reduce air pollutants so that the Clean Air Act standards can be attained. We continue to recommend close coordination and communication between EQAC and the county on strategies and activities necessary to comply with the ozone and fine particle standard.
2. EQAC is pleased with the work of the county's Air Quality Subcommittee that included a variety of air quality management strategies as shown in the interim report and Clean Air Café menu that was presented to the board of supervisors' Environmental Committee. EQAC recognizes that a significant number of projects that are shown in the report and menu have been funded and implemented. EQAC commends the board on its strong support for air quality and recommends that the board continue to fund air quality projects and initiatives that are shown in the county's Environmental Improvement Program.

3. EQAC is also pleased to see the air quality outreach effort that the county has started. By getting the word out to people we can obtain voluntary actions and efforts to help improve the region's air quality. EQAC recognizes that this outreach effort would not be possible if it were not for the board's strong support in funding air quality monitoring equipment replacement and outreach and education efforts in FY 2005 through FY 2007. EQAC commends the board for this effort and recommend that the board continue to fund the air quality outreach program. EQAC would also like to commend the board and county on obtaining a National Association of Counties award in 2005 for its commitment to air quality excellence. The Air Quality Subcommittee should continue promoting clean air education programs and initiatives and find ways to expand their audience.

F. RECOMMENDATIONS

No new recommendations are proposed this year.

LIST OF REFERENCES

2005 Ozone Data Information, Fairfax County Health Department, Air Quality Section, Division of Environmental Health

Agency Responses to the Environmental Quality Advisory Council Recommendations Contained within the 2005 Annual Report on the Environment

Air Pollution Has Declined Significantly Since 2003; Metropolitan Washington Council of Governments News Release dated September 27, 2006

Clean Air Interstate Rule, www.epa.gov/air/interstateairquality/index.html.

Federal Register, Part II, 40 CFR Parts 51, 72 et al, Environmental Protection Agency dated May 12, 2005.

Virginia, Maryland and the District of Columbia Partner to Improve Air Quality, Office of the Governor News Release dated May 31, 2005.

Regional Summit, Interstate Air Quality Council Memorandum, dated May 31, 2005.

Fine Particle Standards, Air Quality Conformity Assessment, Metropolitan Washington Council of Governments dated June 8, 2005.

Transportation Conformity Rule Amendments for PM_{2.5} Standard, www.epa.gov/otaq/stateresources/transconf/index.htm

Virginia DEQ Web site, www.deq.state.va.us/ozone/

Declaration on Air Quality Leadership, (memorandum from the county executive to senior management team dated February 12, 2003).

Implementation of Available Ozone Action Best Practices, (memorandum from the county executive to senior management team dated July 21, 2003, describing the background and objectives for the Air Quality Sub-Committee and attaching its Charter).

State Implementation Plan (“SIP” or “Severe Area SIP”) to Improve Air Quality in Washington, DC – MD – VA Region, (final SIP and appendices available at the MWCOG Web site (www.mwcog.org/environment/air/)).

Air Quality Management/Fairfax County, (memorandum from the Environmental Quality Advisory Council to the deputy county executive dated August 28, 2002).

Correspondence dated November 15, 2002, from the deputy county executive to EQAC describing the intentions of the county with respect to air quality in response to the August 28, 2002, memorandum from EQAC.

Fairfax County Web site: <http://www.fairfaxcounty.gov/airquality>

