

US EPA ARCHIVE DOCUMENT



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December 26, 2000

The Secretary

717-787-2814

Mr. Bradley M. Campbell
Regional Administrator
U.S. Environmental Protection Agency
Region III
Mail Code 3RA00
1650 Arch Street
Philadelphia, PA 19103-2029

Dear Brad:

The Pennsylvania Department of Environmental Protection is hereby providing recommendations under Section 107(d)(1)(A) of the Clean Air Act Amendments (CAAA) to the Environmental Protection Agency (EPA) on designation of eight-hour ozone areas for the Commonwealth. We are providing these recommendations in the event that the eight-hour National Ambient Air Quality Standard for ozone is promulgated in its present form.

We understand that the Clean Air Act Amendments (CAAA) gives the Commonwealth the opportunity to submit recommendations, supported by the most recent quality-assured monitoring data, for attainment/nonattainment areas following the promulgation of new or revised air standards. After opportunity for public comment, EPA may make modifications and promulgate all or part of the Governor's recommendations. If EPA determines that a modification to the recommendation is necessary, EPA will notify the state no later than 120 days prior to promulgating the designation. This will provide an opportunity for the state to work with EPA if the state believes EPA's decisions are not appropriate.

That standard has been remanded to EPA by a federal court and is currently under review by the US Supreme Court. We ask EPA to keep the Commonwealth apprised of its schedule for decision making on eight-hour designations, in light of the uncertainty that the Supreme Court review imparts.

Designations for ground-level ozone serve two purposes. First, they trigger an air quality planning process to ensure that the areas attain and maintain air quality standards. Second, they define the area within which the public needs to know that ozone concentrations in the summer could affect their health. In the proposal that the Department offered for public comment, we presented a way to reconcile two competing objectives – the need to communicate monitored air quality concentrations to the public and the need for a rational planning area to formulate

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additional local measures to improve the air. The complicating factor in developing our proposal was the significant effect that the transport of pollution into Pennsylvania by states to our south and west has on our air quality and their continuing refusal to do their fair share in meeting public health-related standards. We know this is an issue that EPA wrestled with during the 1997 development of the new NAAQS implementation guidance. It is still the idea that guides our thinking. We have refined our recommendations to address many of the comments we received on our original proposal.

Public Review

The Department conducted a public comment period on its proposed recommendations from July 8 to August 11, 2000. We have included a comment/response document, which summarizes issues raised during the comment period along with the Department's response as well.

Recommended Designations

Attached is our list of recommended designations, the design value for each monitor and recommended boundaries.

Proposal Summary:

Transport of ozone and multistate/national control measures

Air crossing Pennsylvania's borders is often already above the eight-hour federal health-based standards, as demonstrated by those monitors located at Pennsylvania's southern and western borders to measure ozone transport. Many areas of Pennsylvania will not be able to achieve the eight-hour standard without Midwestern and Southern state compliance with broad regional measures to reduce NOx. EPA regulations (the "NOx SIP Call") and Pennsylvania's actions (Section 126 petition and Chapter 145 regulations) will provide a framework to achieve those reductions.

Pennsylvania will also derive significant emission reduction benefits from nationwide mobile measures such as cleaner cars, diesel vehicles and fuels. In addition, stakeholders in eight counties (Southcentral Pennsylvania and Lehigh /Northampton /Berks) have already recommended measures to attain the standard and reduce their contribution downwind. With the successful and timely implementation of the NOx SIP call and these other measures, we expect most areas of the state will attain the eight-hour standard. Pennsylvania is recommending a "transitional nonattainment" designation for these areas. This strategy helps such areas avoid the stigma of "nonattainment." Because most of these areas have no Ozone Action Day program, Pennsylvania will enhance its notice to the public with continuing information about unhealthy ozone levels in the area by implementing an enhanced statewide public notification program to assure the public is notified of predicted high ozone days during this transition period.

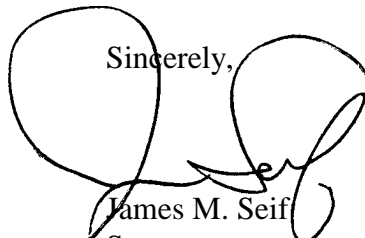
The transitional concept is not unfamiliar to EPA. The concept of “areas of influence” and “areas of impact” arose during FACA meetings on standard implementation. EPA’s draft implementation guidance itself used the term “transitional” in recognition that some areas are mostly not in control of their own air quality. We urge EPA to continue to follow that path in implementing the eight-hour ozone standard as well as other standards with large regional implications. With the interstate transport reduction programs and many of the stakeholder recommendations, Pennsylvania expects these transitional areas to attain the eight-hour standard prior to the state implementation submission deadlines.

Boundary Recommendations

Pennsylvania is recommending that EPA continue to follow Metropolitan Statistical Area boundaries except in Southwestern Pennsylvania. An expanded interstate nonattainment area is recommended because air quality data show a dominance of transported pollutants impacting the Pittsburgh MSA. No interstate organization such as the Ozone Transport Commission or even an interstate Air Quality Control Region exists to facilitate coordination. In addition these upwind areas are sparsely, if at all, monitored for air quality levels and are not subject to Congressional mandate transport area controls as are the Ozone Transport Region states. These recommended boundaries are shown in Attachment II.

Thank you for your consideration of the Commonwealth recommendations. Please feel free to contact me at the above number, or James Salvaggio at 717-787-9702 with any questions.

Sincerely,



James M. Seif
Secretary

Enclosure

Proposed Eight-Hour Ozone Designation Areas
Comment and Response Document

October 11, 2000

Bureau of Air Quality
Department of Environmental Protection

Proposed Eight-Hour Designation Areas Comment and Response Document

The Department of Environmental Protection published a notice of comment period on July 8, 2000 in the Pennsylvania Bulletin (30 PaB 3511). The public comment period closed on August 11, 2000.

This document summarized the written comments received during the public comment period. A response to each comment is provided. Please note the number in parenthesis after each comment refers to the number of the commentator.

List of Commentators

Number	Commentator
1	Marie Rust Regional Director National Park Service Northeast Region 200 Chestnut Street Philadelphia, PA 19106-2878
2	Frederick M. Anderson State Issues Management Advisor – Northeast ExxonMobil 3225 Gallows Road Room 8B617 Fairfax, VA 22037
3	Lloyd W. Hopkins, Jr., Chairman Berks County Planning Commission 633 Court Street, 14 th Floor Reading, PA 19601-4309
4	Bob Orchowski, Manager Environmental Services Orion Power Midwest 2000 Cliff Mine Road Suite 200 Pittsburgh, PA 15275
5	Kevin Stewart Director of Environmental Health American Lung Association of Pennsylvania 630 Janet Avenue Lancaster, PA 17601-4584
6	Nancy F. Parks, Chair Clean Air Committee Pennsylvania Chapter Sierra Club 201 West Aaron Square P.O. Box 120 Aaronsburg, PA 16820-0120

7	Charles McPhedran Senior Counsel Citizens for Pennsylvania's Future 117 South 17 th Street, Suite 1801 Philadelphia, PA 19103
8	John C. Elston Administrator, Air Quality Management State of New Jersey Department of Environmental Protection P.O. Box 418 Trenton, NJ 08625-0418
9	Michael Fiorentino, Esq. Clean Air Council 105 N. Front Street Suite 106 Harrisburg, PA 17101
10	Jan Jarrett Director of Outreach Citizens for Pennsylvania Future 212 Locust Street Suite 410 Harrisburg, PA 17101 Suzanne Seppi Executive Director Group Against Smog and Pollution P.O. Box 5165 Pittsburgh, PA 15206 Keven Stewart Director of Environmental Health American Lung Association of Pennsylvania 630 Janet Avenue Lancaster, PA 17601-4584 Beth McConnell Clean Air Advocate PennPIRG 1334 Walnut Street 6 th Floor Philadelphia, PA 19107

11	Harold D. Miller Director The Southwestern Pennsylvania Growth Alliance 425 Sixth Avenue Suite 1000 Pittsburgh, PA 15219
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RESPONSE TO COMMENTS

1. The areas designated should follow county boundaries and use metropolitan statistical area (MSA) boundaries. (1), (2), (5)

The Department agrees.

2. Emission offset programs including “lowest achievable emission rates” should be required of major stationary sources in all nonattainment areas. (1)

In Pennsylvania these requirements are already in place statewide as required by the Clean Air Act (CAA) for the entire Ozone Transport Region.

3. Two commentators supported the use of the transitional category (3,4). However, six commentators opposed its use. (5,6,7,8,9,10). The reasons for opposition include that such a category is not permissible under the CAA, it does not accomplish the stated DEP objectives, it is misleading to the public concerning health related air quality levels, it does not deal with transport downwind, and it does not deal with “rampant development.”

The Department appreciates and understands the concern expressed by a number of commentators concerning use of the transitional category. The Department has looked for alternatives that would correctly express the planning situation for these areas. We believe currently adopted and planned programs will bring these areas into attainment. The Department wants to focus on the two major urban areas, particularly Philadelphia. This does not mean that surrounding areas’ contributions to air quality in other areas will not continue to be reviewed as an important factor for attainment in the more problematic areas as was recently done as part of the Department’s stakeholder process.

Notwithstanding the commentators’ suggestions, the Department continues to believe that transitional status best expresses to the public that these areas with programs already being implemented, will “transition” to attainment. These areas are expected to be in attainment prior to the State Implementation Plan submission deadline.

In the interim for those transitional areas not covered by our Ozone Action programs, the Department is planning to upgrade our Air Quality Index program. This will allow better, timely notification when ozone will reach levels considered to be unhealthy or approaching unhealthy.

Finally, to more clearly indicate to the public that these areas are not currently meeting the eight-hour standard and because there are only two legal designations under the CAA, the Department will recommend they be categorized as “Transitional Nonattainment Areas.”

4. The proposal conflicts with the Stakeholder recommendations by focusing only on regional NOx reductions. (5), (6), (7) and (10)

The Department did not intend to imply that the Southcentral and Reading/Lehigh Valley Stakeholder recommendations, other than the regional NOx reductions, would be unnecessary. The Department fully intends to continue to pursue those recommendations, most of which are currently in the process of adoption and/or implementation. In fact, the expected emission reductions from these strategies are part of the reason that DEP recommended transitional status for the Southcentral and Reading/Lehigh Valley Stakeholder areas.

5. The public should be given the opportunity to review monitoring data. (4)

Measured ozone levels are always available to the public through DEP's Web site or upon request. Real time data and a variety of data summaries are posted on the Department's web site. DEP also publishes an annual report for all measured pollutants.

6. The 1996 emission inventory is not appropriate for background for designations because emissions are expected to change significantly. (4)

The comment is correct that emissions have and will continue to change significantly. However, actual 1999 levels are not yet available for all source categories. Also, this information was only one of several pieces of information used to develop boundaries.

7. The 1997-99 air quality data is inappropriate for setting design values for areas for the future. (4)

This is the most recent data available. If comprehensive quality-assured 1998-2000 data is available, it will be submitted to EPA with appropriate changes. The Department has used the transitional area concept to help account for expected changes in ambient air quality levels.

8. The transitional designation conflicts with the Southcentral and Reading/Lehigh Valley Stakeholder recommendations. (6,7)

The Department does not agree. The Stakeholder modeling showed that both areas would be at the eight-hour standard with implementation of the recommended strategies. Therefore, the Department believes transitional status is appropriate for these areas. The Stakeholder modeling represented two three-day episodes. The eight-hour standard is the fourth highest daily eight-hour concentration for each year averaged over three years. Thus, it cannot be directly compared to a one-day eight-hour concentration.

9. Has EPA certified the 1998 and 1999 air quality monitoring data? (6)

EPA does not “certify” state and local monitoring data. They do set criteria for agencies to follow in quality assuring monitoring data which DEP follows. The 1998 and 1999 data has been quality assured. Once monitoring data for 2000 has been fully collected and quality assured it will be available to reassess eight-hour areas.

10. One commentator disagreed with the Department’s statement that classifications and mandated measures under the one-hour standard would not necessarily apply to the eight-hour standard. (6)

The Department disagrees. Under an interim implementation policy on the revised ozone standard, in May of 1998, EPA interprets the relevant portions under section 181 of the CAA as explicitly linked and applicable only to the one-hour standard.

11. The Department failed to meet the CAA deadline of June 30. (6)

The Department decided it was more important to seek public comment on the Commonwealth’s recommendations than to send the recommendations by the June 30 date selected by EPA. It is likely that final federal action will not occur until early 2001. The CAA did not set June 30, 2000, as a specific deadline.

12. York, Lancaster, Lehigh and Berks Counties should be part of the Philadelphia Metropolitan Area and Northampton County should be part of New York City. (8)

The Department disagrees. This would break up MSA’s. It would also split the Allentown-Bethlehem-Easton area when that area has been one land-use and transportation planning area and has strong regional economic ties.

In addition, there is a basic conflict in the CAA between (1) defining areas based on monitoring to determine attainment and (2) defining areas based on where primary emission reductions should be achieved. Using the EPA recommended MSA approach is a compromise between these two conflicting approaches when transport is an issue. At this time, the Department believes using the smaller area is preferable for transportation conformity, more effective public involvement and more effective local planning.

Finally, Pennsylvania has an excellent track record for doing its fair share and recognizing its contribution to downwind areas. Pennsylvania will continue to do this as demonstrated by the recent Southcentral and Reading/Lehigh Valley Stakeholder processes which addressed contributions to the Philadelphia and New York City areas. The Ozone Transport Commission also performs planning that integrates these areas and makes reorganizing these areas unnecessary.

13. How can DEP recommend different status for areas with similar design values? (5,6,7,11)

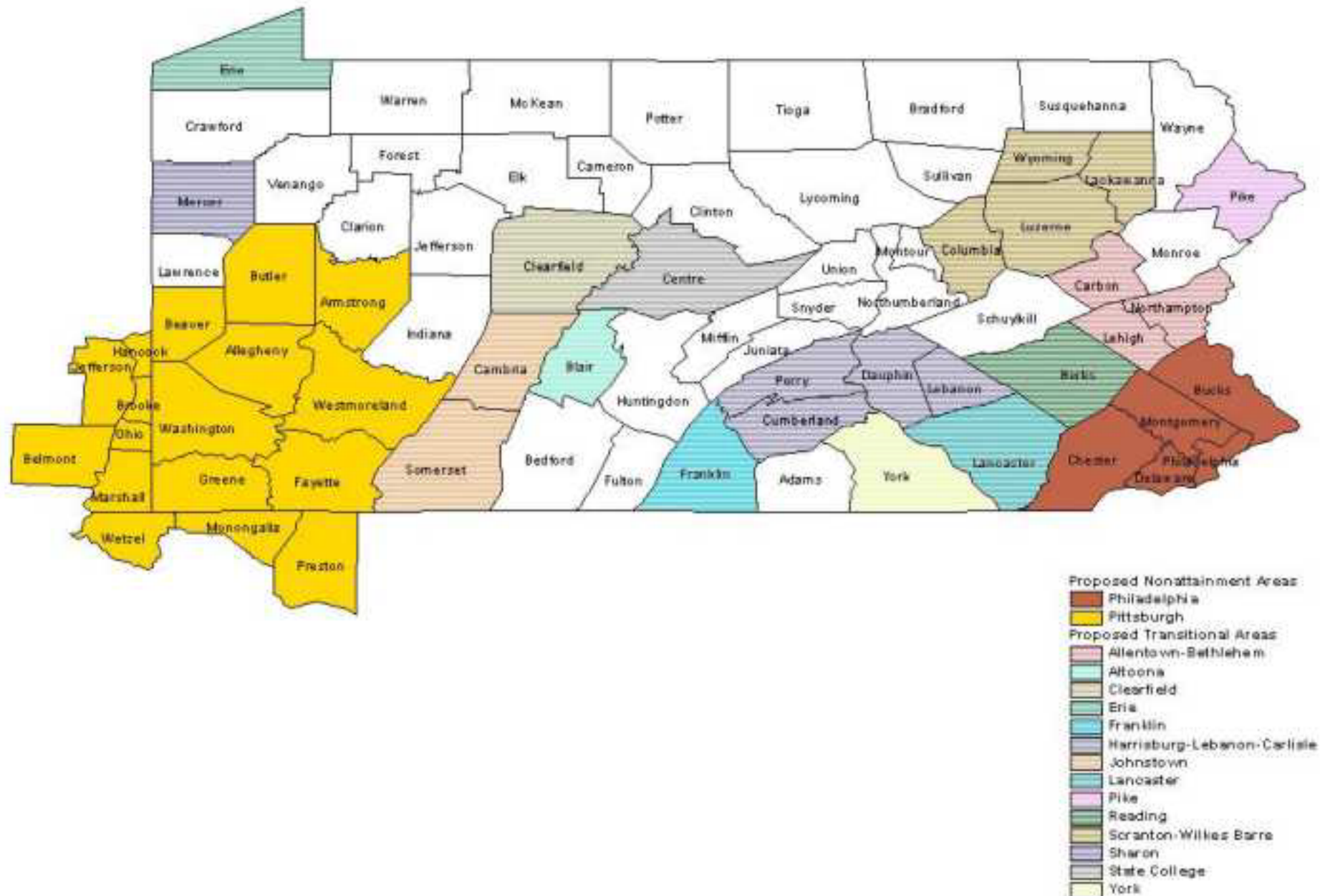
Several factors are involved in these decisions. First, the expected emission reduction impact from future control strategies. Philadelphia and Pittsburgh have implemented more local measures than other areas. When the Stakeholder recommendations are implemented in the Southcentral, Reading and Lehigh Valley areas, greater air quality improvements will take place. Many of these measures have already been implemented and are reflected in current monitoring levels for Pittsburgh and Philadelphia.

14. The Pittsburgh area should be either a) attainment based on EPA modeling projections, b) unclassifiable or no recommendation due to uncertainties or c) should have included significant portions of WV and OH due to their impact on air quality. (11)

The Department believes that air quality will improve significantly in the Pittsburgh area with the NO_x SIP call reductions and Stakeholder recommendations. However, that improvement is not expected to be sufficient to confidently predict attainment with the eight-hour standard. The Department is participating with the Ozone Transport Commission on new eight-hour modeling. This effort may give Pennsylvania better support to predict eight-hour attainment in Southwestern Pennsylvania. At this time, the Department believes continued planning is required to determine the air quality status of the Pittsburgh area.

The Department believes the suggestion for adding adjacent counties has merit. In Ohio and West Virginia, these areas are not subject to new source review requirements (see comment 1) as are all counties in Pennsylvania. Therefore, the Department will recommend to EPA an expanded interstate nonattainment area for Pittsburgh.

Proposed 8-Hour Ozone Designations



October 11, 2000

Pennsylvania Areas	County Design Value*	Proposed Designation
AQCR 045 Metropolitan Philadelphia Interstate		
Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD CMSA		
Bucks County	103 ppb	Nonattainment
Chester County	No monitor	Nonattainment
Delaware County	100 ppb	Nonattainment
Montgomery County	104 ppb	Nonattainment
Philadelphia County	90 ppb	Nonattainment
AQCR 151 Northeast Pennsylvania – Upper Delaware Valley Interstate		
Allentown-Bethlehem-Easton MSA		
Carbon County	No monitor	Transitional/Nonattainment **
Lehigh County	100 ppb	Transitional/Nonattainment
Northampton County	93 ppb	Transitional/Nonattainment
Reading MSA		
Berks County	96 ppb	Transitional/Nonattainment
Scranton-Wilkes-Barre-Hazleton MSA		
Lackawanna County	90 ppb	Transitional/Nonattainment
Luzerne County	92 ppb	Transitional/Nonattainment
Wyoming County	No monitor	Transitional/Nonattainment
New York City Area		
Pike County	No monitor	Transitional/Nonattainment
Remaining counties inside AQCR 151		
Bradford County	No monitor	Attainment
Monroe County	Incomplete data/shut down***	Attainment
Schuylkill County	No monitor	Attainment
Susquehanna County	No monitor	Attainment
Sullivan County	No monitor	Attainment
Tioga County	No monitor	Attainment
Wayne County	No monitor	Attainment

AQCR 178 Northwest Pennsylvania – Youngstown Interstate		
Clearfield County Area		
Clearfield County	93 ppb	Transitional/Nonattainment
Erie MSA		
Erie County	93 ppb	Transitional/Nonattainment
Lawrence County Area		
Lawrence County	83 ppb	Attainment
Sharon MSA		
Mercer County	96 ppb	Transitional/Nonattainment
Remaining counties inside AQCR 178		
Cameron County	No monitor	Attainment
Clarion County	No monitor	Attainment
Crawford County	No monitor	Attainment
Elk County	No monitor	Attainment
Forest County	No monitor	Attainment
Jefferson County	No monitor	Attainment
McKean County	No monitor	Attainment
Potter County	No monitor	Attainment
Venango County	No monitor	Attainment
Warren County	No monitor	Attainment
AQCR 195 Central Pennsylvania Intrastate		
Altoona MSA		
Blair County	95 ppb	Transitional/Nonattainment
State College MSA		
Centre County	90 ppb	Transitional/Nonattainment
Johnstown MSA		
Cambria County	93 ppb	Transitional/Nonattainment
Somerset County	No monitor	Transitional/Nonattainment
Scranton-Wilkes-Barre-Hazleton MSA		
Columbia County	No monitor	Transitional/Nonattainment
Williamsport MSA		
Lycoming County	74 ppb	Attainment
Remaining counties inside AQCR 195		
Bedford County	No monitor	Attainment
Clinton County	No monitor	Attainment
Fulton County	No monitor	Attainment
Huntingdon County	No monitor	Attainment
Juniata County	No monitor	Attainment
Mifflin County	No monitor	Attainment
Montour County	No monitor	Attainment

Northumberland County	No monitor	Attainment
Snyder County	No monitor	Attainment
Union County	No monitor	Attainment
AQCR 196 South Central Pennsylvania Intrastate		
Franklin County Area		
Franklin County	97 ppb	Transitional/Nonattainment
Harrisburg-Lebanon-Carlisle MSA		
Cumberland County	No monitor	Transitional/Nonattainment
Dauphin County	94 ppb	Transitional/Nonattainment
Lebanon County	No monitor	Transitional/Nonattainment
Perry County	90 ppb	Transitional/Nonattainment
Lancaster MSA		
Lancaster County	101 ppb	Transitional/Nonattainment
York MSA		
York County	94 ppb	Transitional/Nonattainment
Remaining counties inside AQCR 196		
Adams County	No monitor	Attainment
Pittsburgh-West Virginia-Ohio Nonattainment Area		
AQCR 197 Southwest Pennsylvania Intrastate		
Pittsburgh MSA		
Allegheny County	101 ppb	Nonattainment
Armstrong County	Incomplete data	Nonattainment
Beaver County	92 ppb	Nonattainment
Butler County	No monitor	Nonattainment
Fayette County	No monitor	Nonattainment
Washington County	101 ppb	Nonattainment
Westmoreland County	85 ppb	Nonattainment
Greene County Area		
Greene County	97 ppb	Nonattainment

Remaining counties inside AQCR 197		
Indiana County	No monitor	Attainment
Additional counties outside AQCR 197		
Wheeling MSA		
Marshall County, West Virginia	No monitor	Nonattainment
Ohio County, West Virginia	85 ppb	Nonattainment
Belmont County, Ohio	No monitor	Nonattainment
Steubenville-Weirton MSA		
Brooke County, West Virginia	No monitor	Nonattainment
Hancock County, West Virginia	87 ppb	Nonattainment
Jefferson County, Ohio	81 ppb	Nonattainment
Remaining counties outside MSAs		
Wetzel County, West Virginia	No monitor	Nonattainment
Monongalia County, West Virginia	No monitor	Nonattainment
Preston County, West Virginia	No monitor	Nonattainment

*Three Year Average (1997-1999) of the 4th Highest Maximum for 8-Hour Ozone Concentrations

** For purposes of this table, a “transitional/nonattainment” area is one with air quality that does not meet the standard but that will most likely attain once measures to reduce interstate transport are in place.

***Monitor was designated a special purpose monitor. This monitor had only one year of complete data. EPA expects three years of complete data to designate attainment areas.

**Commonwealth of Pennsylvania
Department of Environmental Protection**



**Proposed
Eight-Hour Ozone Designation Areas**

July 2000

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Introduction

The Pennsylvania Department of Environmental Protection is proposing to make recommendations to the Environmental Protection Agency (EPA) on designation of eight-hour ozone areas for the Commonwealth, in anticipation of EPA's eventual implementation of the eight-hour National Ambient Air Quality Standard for ozone. That standard has been remanded to EPA by a federal court.

The Department is seeking comment on whether to use terminology and methodology different from that used to designate the current one-hour ozone areas. Changes would be appropriate if they provide for more effective planning and/or faster attainment of the ozone standards. EPA provides criteria for states' recommendations for designating areas. We have provided data that addresses the criteria

Overview

What is ozone?

Ground-level ozone continues to be the primary air pollution problem in Pennsylvania. Reducing concentrations of ground-level ozone is important because ozone levels above the health-based standard are a serious human health threat, and also can cause damage to important food crops, forests, and wildlife. Ozone in the troposphere, also called ground-level ozone, should not be confused with stratospheric ozone – located in the upper atmosphere – which protects the earth by blocking out damaging solar radiation.

Ozone is not emitted directly to the atmosphere, but is formed by photochemical reactions between volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) in the presence of sunlight. The long, hot, humid days of summer are particularly conducive to ozone formation, so ozone levels are of general concern during the months of May through September.

The primary sources of man-made VOCs and NO_x, the ozone precursors, are the evaporation of fuels and solvents (gasoline and consumer products), combustion of fuels (motor vehicles, power plants, and other industries), and chemical and industrial processes.

Clean Air Act Process

The Clean Air Act requires EPA to review public health standards for major air pollutants every five years and update National Ambient Air Quality Standards, if necessary, to “protect public health with an adequate margin of safety” based on the latest, best-available science. During its most recent review of the ground-level ozone standard, EPA concluded that the existing standard did not adequately protect the public from adverse health effects.

Therefore, in 1997, EPA promulgated a new standard, which averages ozone concentrations over eight hours, rather than over one hour. Under the form adopted by EPA, areas are allowed to disregard their three worst measurements every year and average performance over three years to determine if they meet the standard.

Section 107(d)(1)(B) of the Clean Air Act Amendments (CAAA) requires EPA to designate areas after promulgating a new national ambient air quality standard. EPA promulgated a new ozone standard on July 18, 1997. On May 14, 1999, the U.S. Court of Appeals for the District of Columbia issued a decision remanding, but not vacating, the eight-hour ozone standard. Noting that the court decision did not challenge the need to designate areas, EPA is proceeding with the designation process and is requesting that states submit their recommendations. American Trucking Assoc. v. EPA, 175 F.3d 1027, 1047-48, on rehearing 195 F.3d 4 (D.C. Circuit 1999). On May 22 and 30, the US Supreme Court granted petitions from the US government and industry to review the circuit court decision. A final decision may not be made until spring 2001.

The CAAA gives the Governor of a state following the promulgation of new or revised air standards the opportunity to submit recommendations for attainment/nonattainment areas, supported by most recent quality-assured monitoring data. After opportunity for public comment, EPA may make modifications and promulgate all or part of the Governor's recommendations. If EPA determines that a modification to the recommendation is necessary, EPA will notify the state no later than 120 days prior to promulgating the designation. This will provide an opportunity for the state to work with EPA if the state believes EPA's decisions are not appropriate. Because of the litigation surrounding the eight-hour ozone standard, there is no definite schedule for making final designations at this time. However, EPA anticipates that designations may be made by early spring 2001.

What would be the effects of designation as nonattainment?

Section 110 of the Clean Air Act requires states to submit State Implementation Plans (SIPs) within three years after promulgation of a new standard. A SIP describes how the standard would be attained in each nonattainment area. However, because of the litigation of the eight-hour ozone standard, there is no definite schedule for SIP submittal at this time.

The Clean Air Act Amendments of 1990 established a series of classifications (marginal, moderate, serious, severe and extreme), each with their own attainment date and measures that must be implemented. According to EPA, because these classifications were tied strictly to the one-hour standard, neither the classifications nor the mandated measures necessarily apply to designations under the eight-hour standard.

States have the primary responsibility for determining how the ground-level ozone standard will be achieved. However, measures adopted by states under the one-hour standard cannot and should not be repealed. Therefore, Pennsylvania would continue provisions

pertaining to the one-hour ozone standard and the Ozone Transport Region (OTR), including vehicle emission inspection/maintenance, Reasonably Available Control Technology (RACT) for existing stationary sources of air pollution, and New Source Review (emission offset program) for new or modified sources.

Eight-hour designations will have less effect in a state like Pennsylvania that is within the OTR than outside, because more has already been done within the OTR to improve air quality. One effect of designation under the eight-hour standard would be the requirement for demonstrating transportation conformity. Areas would have to show that their transportation plans, programs and projects help improve air quality.

Transport of ozone and multistate/national control measures

Air crossing Pennsylvania's borders is often already above the eight-hour federal health-based standards, as demonstrated by those monitors located in higher altitudes at Pennsylvania's southern and western borders to measure ozone transport. Many areas of Pennsylvania will not be able to achieve the eight-hour standard without Midwestern and Southern state compliance with broad regional measures to reduce NO_x. EPA regulations (the "NO_x SIP Call") and Pennsylvania's actions (Section 126 petition and proposed state Chapter 145 regulations) would provide a framework to achieve those reductions.

Pennsylvania will also derive significant emission reduction benefits from nationwide mobile measures such as cleaner cars, diesel vehicles and fuels. In addition, stakeholders in eight counties (Southcentral Pennsylvania and Lehigh /Northampton /Berks) have already recommended measures to attain the standard and reduce their contribution downwind. With the successful and timely implementation of the NO_x SIP call and these other measures, we expect most areas of the state would attain the eight-hour standard. Since local actions and emissions reductions may be required for areas designated nonattainment, Pennsylvania is proposing to recommend a "transitional" designation for areas that will achieve the eight-hour ozone standard after full implementation of the NO_x SIP call. This strategy would help such areas avoid the stigma of "nonattainment," yet provide the public with continuing information about unhealthy ozone levels in the area.

Available Data

Appendix I includes maps that address EPA's criteria, which pertain to air pollution emissions and population densities, in their guidance for designating areas for the eight-hour ozone standard. Manmade emissions of volatile organic compounds and oxides of nitrogen are given in tons per day. Volatile organic compound emissions from natural sources are given in tons per year.

Appendix II shows monitoring data for counties in Pennsylvania and neighboring states that are at issue. Monitoring data for the years 1997-1999 were used. (EPA has determined that the eight-hour ozone standard is met at an ambient air quality monitoring site when the average annual fourth-highest daily maximum eight-hour average ozone concentration is less than or equal to 0.08 ppm.) The ozone level given is the annual fourth-highest maximum eight-hour average ozone concentration.

Proposal

The Department is proposing to recommend establishment of eight-hour ozone designations based primarily on Metropolitan Statistical Area (MSA) boundaries (see description below). These areas would be similar to the areas that were designated for the one-hour ozone standard. MSAs with an ozone monitor measuring a violation of the eight-hour ozone standard would either be designated as a nonattainment area or as an area that will reach attainment with the full implementation of the NO_x SIP call (“transitional” area). Counties not in an MSA with an ozone monitor measuring a violation of the eight-hour standard would be designated “transitional.” Treating areas expected to meet the eight-hour standard with the NO_x SIP call differently from other areas parallels EPA’s draft guidance (11/98) for eight-hour ozone standard implementation.

These boundaries are shown in Figure 1 in Appendix I.

EPA issued general guidance, which describes criteria that states can examine when considering combining MSAs with adjacent or nearby areas. Some of the critical factors recommended include population density similarities (See Figure 5), emission levels (See Figures 2, 3 and 4), air quality, and meteorology.

Discussion about MAs, MSAs and CMSAs

Designation areas are usually based on the boundaries formed by a Metropolitan Statistical Area (MSA) and Consolidated Metropolitan Statistical Area (CMSA), but they do not need to be based on MSAs and CMSAs exclusively. In some instances, MSAs may be combined. Also, portions of MSAs may be excluded as long as the rationale for such action is explained with documented data.

The Office of Management and Budget defines Metropolitan Areas (MA), MSAs, and CMSAs. An MA is an area with a minimum population of 50,000 or a Census Bureau defined urban area with a total of at least 100,000. An MA comprises one or more counties. An MA may also include one or more outlying counties that have close economic and social relationships with a central county. An MSA is a relatively freestanding MA and are not associated with other MAs. Non-metropolitan areas in an MSA typically surround these MAs. If an MA has more than one million people in it, a Primary Metropolitan Statistical Area

(PMSA) may be defined within it. PMSAs consist of a large urbanized county or cluster of counties that demonstrate very strong economic and social links. When PMSAs are established, the larger area of which they are a component part is designated a Consolidated Metropolitan Statistical Area (CMSA).

Examples of Pennsylvania MSAs and CMSAs

Harrisburg, in Dauphin County, is an MA that has strong links to Cumberland, Lebanon, and Perry Counties. No other cities in these linked counties have a population sufficient enough to be considered an MA. Therefore, Dauphin, Cumberland, Lebanon, and Perry Counties are one MSA. Lancaster is an MA, and Lancaster County is considered a stand-alone MSA despite Lancaster's strong ties to the Harrisburg MA.

Philadelphia has a population of more than one million people and is defined as a PMSA. Due to the strong social and economic links established between Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties, this entire region comprises the Philadelphia PMSA. In addition, the Philadelphia and New Jersey and Delaware areas exhibit strong links to each other. This much larger area is defined as the Philadelphia-Wilmington-Atlantic City CMSA.

Appendix I

Figure 1. Proposed 8-hour Ozone Areas In Pennsylvania

Figure 2. 1996 NO_x Emissions From Manmade Sources

Figure 3. 1996 VOC Emissions From Manmade Sources

Figure 4. VOC From Natural Sources

Figure 5. 1996 Population Density

Figure 1

Proposed 8-Hour Ozone Designations

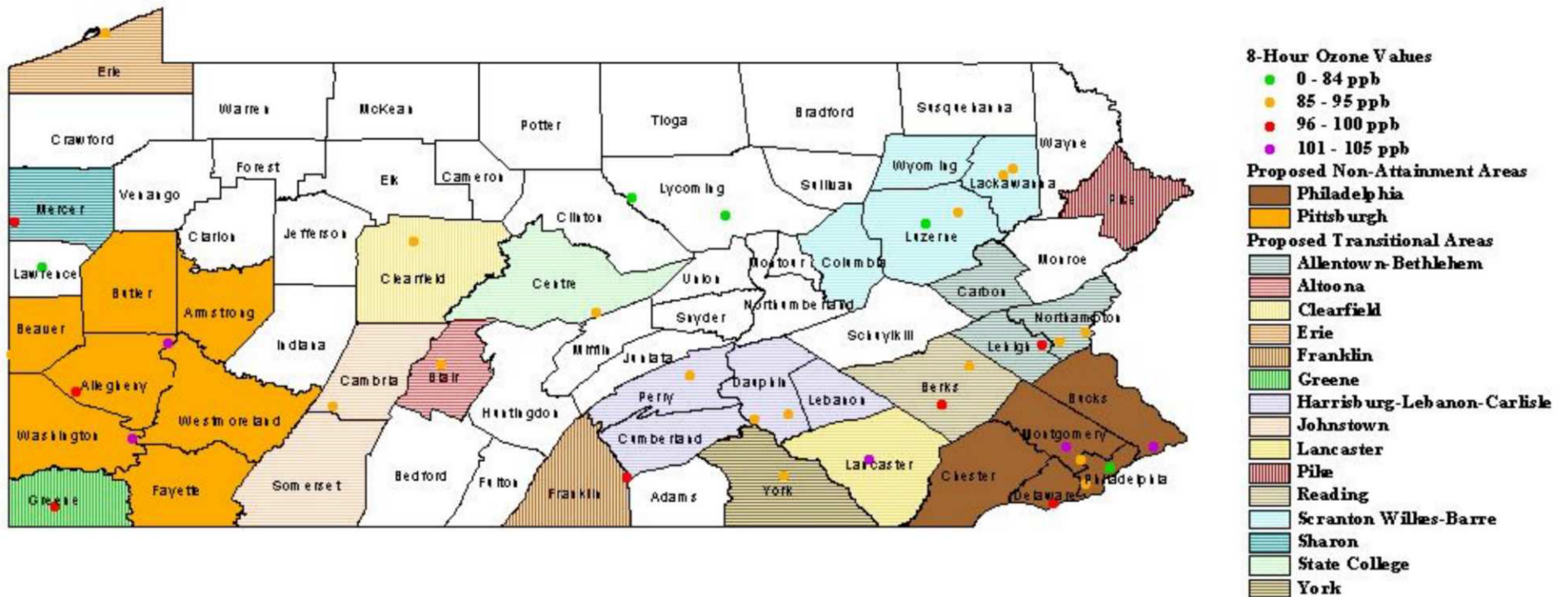


Figure 2.
1996 NO_x Emissions From Manmade Sources

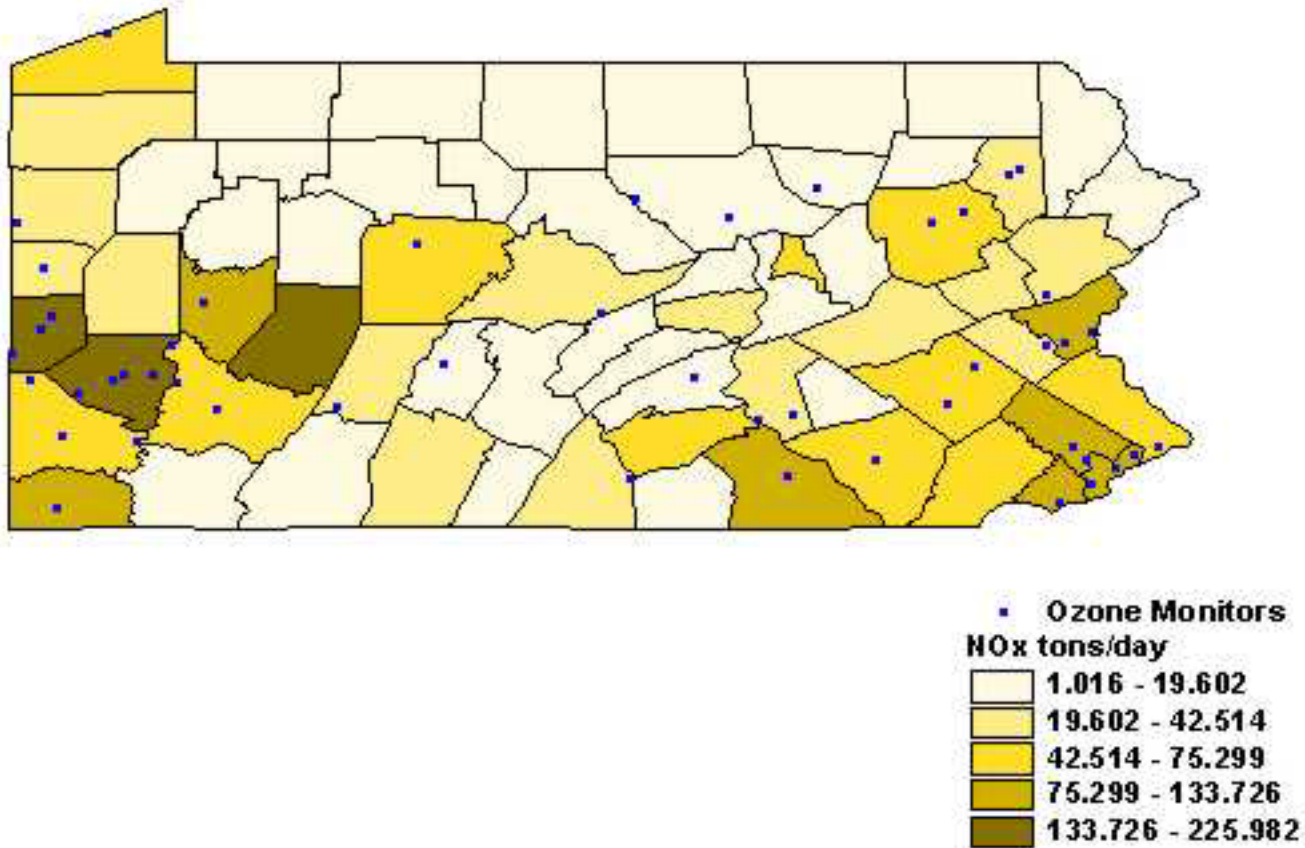


Figure 3.
1996 VOC Emissions From Manmade Sources

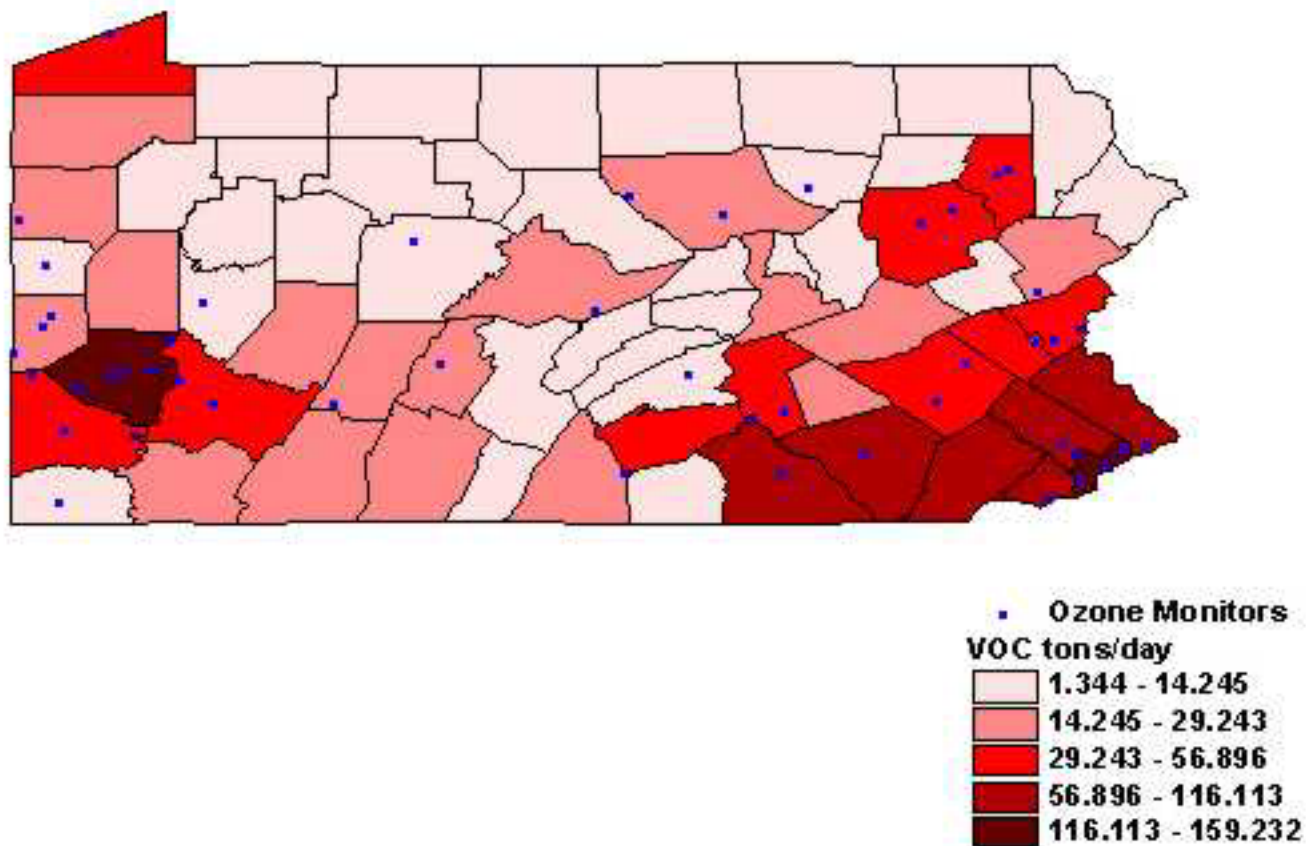


Figure 4.
1996 VOC From Natural Sources

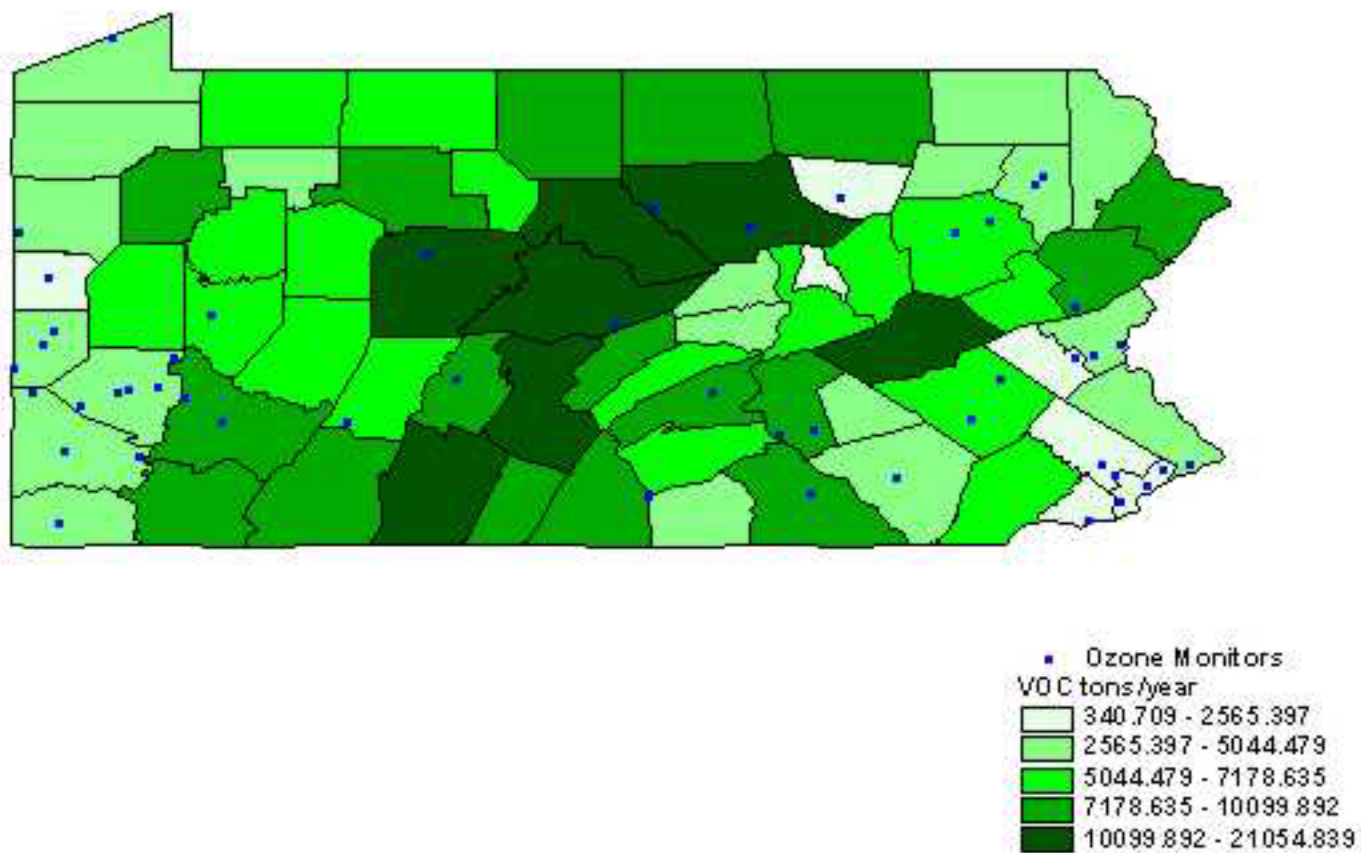
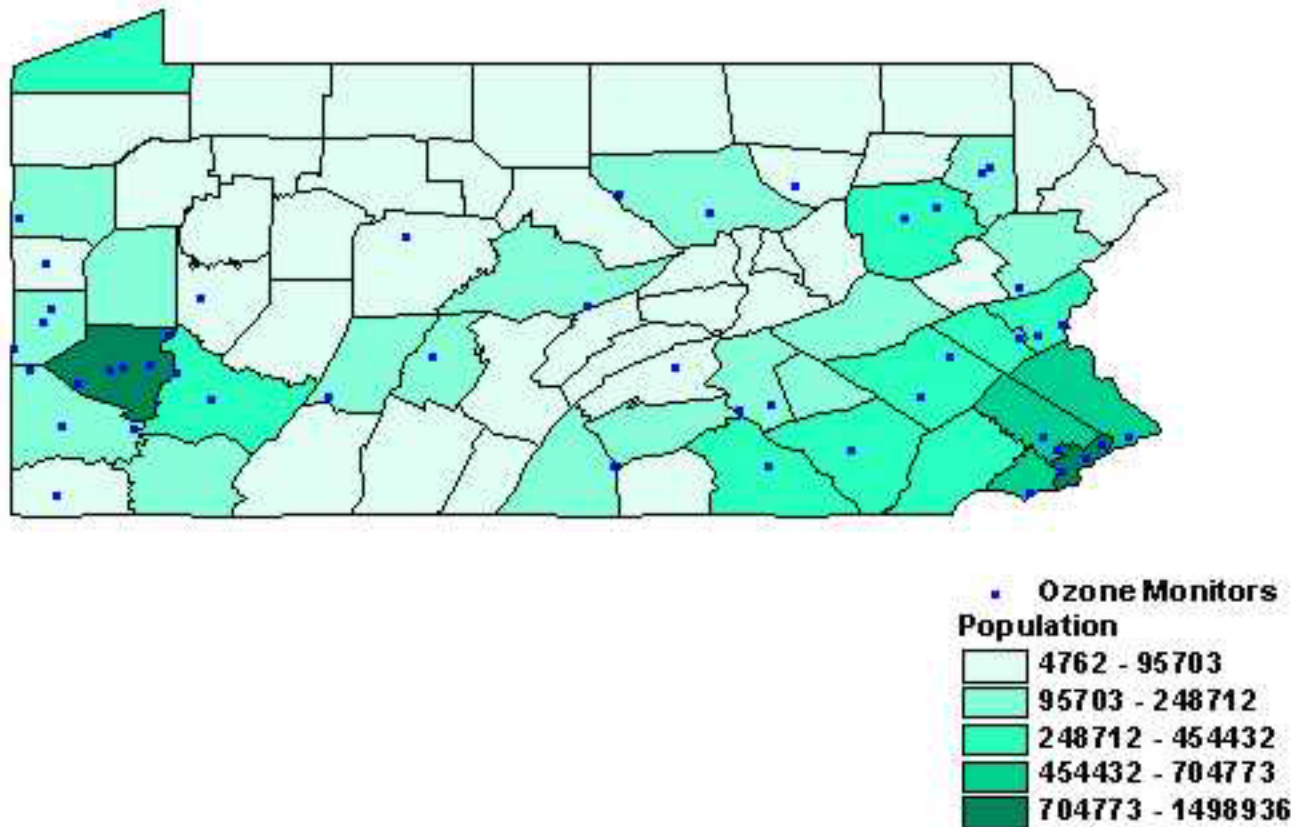


Figure 5.
1996 Population Density



Appendix II

Appendix II

Pennsylvania Areas	County Design Value*	Proposed Designation
AQCR 045 Metropolitan Philadelphia Interstate		
Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD CMSA		
Bucks County	103 ppb	Nonattainment
Chester County	No monitor	Nonattainment
Delaware County	100 ppb	Nonattainment
Montgomery County	104 ppb	Nonattainment
Philadelphia County	90 ppb	Nonattainment
AQCR 151 Northeast Pennsylvania – Upper Delaware Valley Interstate		
Allentown-Bethlehem-Easton MSA		
Carbon County	No monitor	Transitional **
Lehigh County	100 ppb	Transitional
Northampton County	93 ppb	Transitional
Reading MSA		
Berks County	96 ppb	Transitional
Scranton-Wilkes-Barre-Hazleton MSA		
Lackawanna County	90 ppb	Transitional
Luzerne County	92 ppb	Transitional
Wyoming County	No monitor	Transitional
New York City Area		
Pike County	No monitor	Transitional
Remainder of counties in AQCR 151		
Bradford County	No monitor	Attainment
Monroe County	Incomplete data/shut down	Attainment
Schuylkill County	No monitor	Attainment
Susquehanna County	No monitor	Attainment
Sullivan County	No monitor	Attainment
Tioga County	No monitor	Attainment
Wayne County	No monitor	Attainment

AQCR 178 Northwest Pennsylvania – Youngstown Interstate		
Clearfield County Area		
Clearfield County	93 ppb	Transitional
Erie MSA		
Erie County	93 ppb	Transitional
Lawrence County Area		
Lawrence County	83 ppb	Attainment
Sharon MSA		
Mercer County	96 ppb	Transitional
Remainder of counties in AQCR 178		
Cameron County	No monitor	Attainment
Clarion County	No monitor	Attainment
Crawford County	No monitor	Attainment
Elk County	No monitor	Attainment
Forest County	No monitor	Attainment
Jefferson County	No monitor	Attainment
McKean County	No monitor	Attainment
Potter County	No monitor	Attainment
Venango County	No monitor	Attainment
Warren County	No monitor	Attainment
AQCR 195 Central Pennsylvania Intrastate		
Altoona MSA		
Blair County	95 ppb	Transitional
State College MSA		
Centre County	90 ppb	Transitional
Johnstown MSA		
Cambria County	93 ppb	Transitional
Somerset County	No monitor	Transitional
Scranton-Wilkes-Barre-Hazleton MSA		
Columbia County	No monitor	Transitional
Williamsport MSA		
Lycoming County	74 ppb	Attainment
Remainder of counties in AQCR 195		
Bedford County	No monitor	Attainment
Clinton County	No monitor	Attainment
Fulton County	No monitor	Attainment
Huntingdon County	No monitor	Attainment

Juniata County	No monitor	Attainment
Mifflin County	No monitor	Attainment
Montour County	No monitor	Attainment
Northumberland County	No monitor	Attainment
Snyder County	No monitor	Attainment
Union County	No monitor	Attainment
AQCR 196 South Central Pennsylvania Intrastate		
Franklin County Area		
Franklin County	97 ppb	Transitional
Harrisburg-Lebanon-Carlisle MSA		
Cumberland County	No monitor	Transitional
Dauphin County	94 ppb	Transitional
Lebanon County	No monitor	Transitional
Perry County	90 ppb	Transitional
Lancaster MSA		
Lancaster County	101 ppb	Transitional
York MSA		
York County	94 ppb	Transitional
Remainder of counties in AQCR 196		
Adams County	No monitor	Attainment
AQCR 197 Southwest Pennsylvania Intrastate		
Pittsburgh MSA		
Allegheny County	101 ppb	Nonattainment
Armstrong County	Incomplete data	Nonattainment
Beaver County	92 ppb	Nonattainment
Butler County	No monitor	Nonattainment
Fayette County	No monitor	Nonattainment
Washington County	101 ppb	Nonattainment
Westmoreland County	85 ppb	Nonattainment
Greene County Area		
Greene County	97 ppb	Transitional
Remainder of counties in AQCR 197		
Indiana County	No monitor	Attainment

*Three Year Average (1997-1999) of the 4th Highest Maximum for 8-Hour Ozone Concentrations

** For purposes of this table, a “transitional” area is one with air quality that does not meet the standard but that will most likely attain once measures to reduce interstate transport are in place.