James E. McGreevey
Governor

State of New Jersey
Department of Environmental Protection
PO Box 402
Trenton, NJ 08625-0402

Bradley M. Campbell
Commissioner
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January 30, 2004

The Honorable Jane M. Kenny
Regional Administrator
United States Environmental Protection Agency, Region II
290 Broadway – 26th Floor
New York, New York 10007-7866

Dear Regional Administrator Kenny:

I am writing in response to your December 3, 2003 letter to Governor McGreevey regarding recommendations for nonattainment areas for the 8-hour ozone National Ambient Air Quality Standard. New Jersey disagrees with the United States Environmental Protection Agency's (USEPA's) decision to retain Ocean County in a Northern New Jersey-New York nonattainment area. Applying both sound science and the law would place Ocean County in a Southern New Jersey-Philadelphia nonattainment area. The same reasoning would dictate that Cecil County, Maryland does not belong in the Southern New Jersey-Philadelphia nonattainment area. Enclosure 1 outlines the strong scientific and legal basis to support placement of Ocean County in a Southern New Jersey-Philadelphia nonattainment area.

At issue here is the future of New Jersey's and the Mid-Atlantic Region's air pollution planning efforts and our ability to attain the health based 8-hour ozone standard. New Jersey and other states, specifically New York and Connecticut, have requested that Ocean County be placed within a Southern New Jersey-Philadelphia nonattainment area. A major cause of Ocean County's high ozone levels is undeniably the emissions occurring within the nearby Philadelphia metropolis. We believe it is not possible to attain the health standard in Ocean County unless the nearby Philadelphia metropolis takes all available measures towards reducing air pollution commensurate with the area's classification of ozone severity using the higher ozone levels associated with the Ocean County monitoring site. Placing Ocean County in a Northern New Jersey-New York City nonattainment area effectively removes Philadelphia's responsibility in that regard.

As is the case with Ocean County, attainment in Cecil County, Maryland will depend largely on efforts to reduce emissions in the Baltimore-Washington and Northern Virginia area. Also, Cecil County does not contribute significantly to the elevated ozone levels in a Southern New Jersey-

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Philadelphia nonattainment area, nor do counties in the Southern New Jersey-Philadelphia area contribute to elevated ozone levels in Cecil County. Therefore, New Jersey asks the USEPA define a Southern New Jersey-Philadelphia nonattainment area to exclude Cecil County, Maryland.

I look forward to your favorable consideration of this matter.

Sincerely,

Bradley M. Campbell
Commissioner

Enclosures

c: The Honorable James E. McGreevey, Governor
The Honorable Peter C. Harvey, Attorney General
The Honorable Michael O. Leavitt, Administrator
The Honorable Jeffrey R. Holmstead, Assistant Administrator
The Honorable Erin M. Crotty, Commissioner
The Honorable Arthur J. Rocque, Jr., Commissioner
The Honorable John A. Hughes, Secretary
The Honorable Kathleen A. McGinty, Secretary
The Honoralbe Kendl P. Philbrick, Acting Secretary

Scientific and Legal Analysis of Nonattainment Area Boundaries

Unlike the air quality landscape of the 1980's and early 1990's, a great deal is known about how and why areas exceed an ozone standard. Ozone is a regional issue and ozone levels increase downwind of urban areas. These patterns were recognized by both the National Academy of Science and the Ozone Transport Assessment Group.[1, 2] Today, these patterns are clearly visible in the regional 8-hour ozone design values in the Northeast (see Enclosure 2). Thus, it is inappropriate to ignore or subjugate these lessons learned when addressing the issue of designation in the twenty-first century.

Regarding the ozone monitor in Ocean County, it is important to recall the history of this monitor. New Jersey had an ozone monitor at McGuire Air Force Base (AFB) until 1991. McGuire AFB is located in Burlington County, which is part of the 1-hour Philadelphia Nonattainment Area. The United States Environmental Protection Agency (USEPA) asked for a monitoring site further east of McGuire AFB based on air quality modeling that suggested the maximum impact of the Philadelphia plume was somewhat further east. The Colliers Mills, Ocean County monitor was set-up and run concurrently with the McGuire AFB monitor for two years, 1985-6. Similar ozone concentrations were found at these two sites which are within 5 miles of each other. Although the Colliers Mills monitor was to be removed at the end of this test period, the monitor at McGuire AFB had to be removed at the Air Force's request and, therefore, the Colliers Mills monitor was retained and replaced it. The results of the two year concurrent monitoring test clearly showed that the two monitors were measuring similar ozone levels indicating that they were being influenced by the same upwind sources.

Regarding area designations, the Clean Air Act states at §107(d)(1)(A)(i), that,

> "any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant"

be designated nonattainment. Further, clause (ii) of that section recognizes that even an area designated attainment by virtue of its monitored value can still be nonattainment by virtue of clause (i). The citations clearly establish the congressional intent to link "contributing" and "exceeding" areas. This linkage is reiterated in a March 28, 2000 USEPA guidance memo which states,

> "The USEPA believes that any county with an ozone monitor showing a violation of the National Ambient Air Quality Standard and any nearby contributing area needs to be designated as nonattainment".[3]

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[1] National Research Council, 1991, "Rethinking the Ozone Problem in Urban and Regional Air Pollution," National Academy Press.
[2] Ozone Transport Assessment Group, 1997, Executive Report.
[3] USEPA, March 28, 2000, Memo: Boundary Guidance on Air Quality Designations for the 8-Hour Ozone National Ambient Air Quality Standards (NAAQA or Standard), John S. Seitz.

Today, the USEPA guidance on linkage is more committed, as stated in its 2003 memorandum regarding fine particulate matter designations,

> "For each monitor or group of monitors that exceed a standard, nonattainment boundaries must be set that include a sufficiently large area to include both the area judged to violate the standard and the source areas that contribute to these violations."[4]

This principle, rationally stated with respect to fine particulate matter, is equally appropriate for ozone. Therefore, separating an exceeding area, Ocean County, from its contributing area, the Philadelphia metropolis and areas northwest/west/southwest of Ocean County, is counter to the law and the USEPA's own guidance.

The USEPA cited two reasons for placing Ocean County in the New York nonattainment area: (1) that it is in the New York Consolidated Metropolitan Statistical Area (CMSA), and (2) that is where it was for the 1-hour ozone standard.[5]

The use of the CMSA as the presumptive boundary for a nonattainment area is guidance, not a legal requirement.[6] The USEPA's actions on states recommendations supports the fact that the CMSA is merely a rebuttable presumption, not a requirement. An analysis (Enclosure 3) of a number of the decisions reached by the USEPA regional offices in the East shows that only for the Northern New Jersey-New York area, including Ocean County, was the CMSA recommended as the nonattainment area boundary. Other states were allowed to isolate their whole state within one or more nonattainment areas and were not required to use the default CMSA approach. The most glaring example of this is seen in Massachusetts' proposed approval where the state would be its own nonattainment area despite its linkage to several different Metropolitan Statistical Areas. The USEPA guidance memo also states that the 1990 Amendments to the Clean Air Act established the CMSA as the presumptive boundary for ozone nonattainment areas classified as serious, severe and extreme. The 1990 amendments did this at Clean Air Act §107 (d)(4), which is only applicable to historical designations made 120 days after enactment of the 1990 Amendments.

Regarding the USEPA's reason that Ocean County was in the Northern New Jersey-New York 1-hour Ozone Nonattainment Area, Enclosure 3 shows that in only one other instance, Rhode Island, was this reasoning used. In this case the 1-hour nonattainment area, which encompasses the entire state, is different than the default CMSA boundary, and was approved without justification, in deference to the USEPA guidance.

The USEPA has created eleven factors for states to use in developing nonattainment area boundaries, which differ from the CMSA. Two of the factors, emissions and meteorology (primarily wind direction during conditions conducive to ozone formation) are clearly relevant to

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[4] USEPA, April 1, 2003, Memo: Designations for the Fine Particle National Ambient Air Quality Standard, Jeffrey R. Holmstead.

[5] USEPA, December 3, 2002, Letter from Regional Administrator Kenny to Governor McGreevey.

[6] USEPA, March 28, 2000, Memo: Boundary Guidance on Air Quality Designations for the 8-Hour Ozone National Ambient Air Quality Standards (NAAQA or Standard), John S. Seitz.

ozone contributions from a source area to a receptor. A third consideration is the distance from the source to receptor. The other factors are redundant, i.e., mainly sub-elements of emissions or irrelevant to air quality transport or of far less importance than the key considerations cited above. In fact, two USEPA Regional Offices commented on an Office of the Inspector General Report[7] on this subject stating that "they would like to see a more prescriptive way to rank the criteria, in order of importance, to properly designate boundaries for the 8-hour ozone standard."[8]

Further, the USEPA appears reluctant to use these factors in a coherent and uniform fashion. The USEPA Office of the Inspector General Report[9] determined that the USEPA guidance, "did not provide a methodical process for the Regions and states to use when considering the eleven criteria. Without a consistent Regional approach, the ozone designations may not be fair or equitable throughout the nation." In response to the Inspector General Report, the USEPA countered that, "the primary approach for assigning designations should be a case-by-case consideration and evaluation of each area's unique situation and circumstance." This response is an apparent contradiction to the purpose and intent of the USEPA's guidance to provide a fair and consistent method of determining nonattainment area boundaries. Further, it begs the question of why the USEPA feels compelled to use CMSAs. In New Jersey's case, it appears that the case-by-case approach was used in the USEPA's decision making and not the factors in the USEPA's guidance memo. The USEPA was also faulted for reviewing these guidance factors "sequentially and independently."[10]

Notwithstanding the flaws in the use of these factors, a review of the USEPA's usage of the CMSA guidance and the eleven factors in setting recommendations in the Northeast shows a disparate and seemingly arbitrary application (Enclosure 3). An analysis of each of the eleven factors was apparently not performed or provided by many states even though it was requested in EPA guidance. It is unclear how the USEPA made an informed decision according to their guidance in the absence of this technical support. Yet, as previously mentioned, the default CMSA boundaries were not required despite this lack of evidence and contrary to USEPA guidance. In one case, a Region I state (Rhode Island) apparently submitted no more justification than that the use of in-state boundaries would ease the administrative burden of that state. Rhode Island received a USEPA reply that their recommendation was consistent with the USEPA guidance, despite the fact that it appears no factors contained in the USEPA guidance were addressed at all by that state.

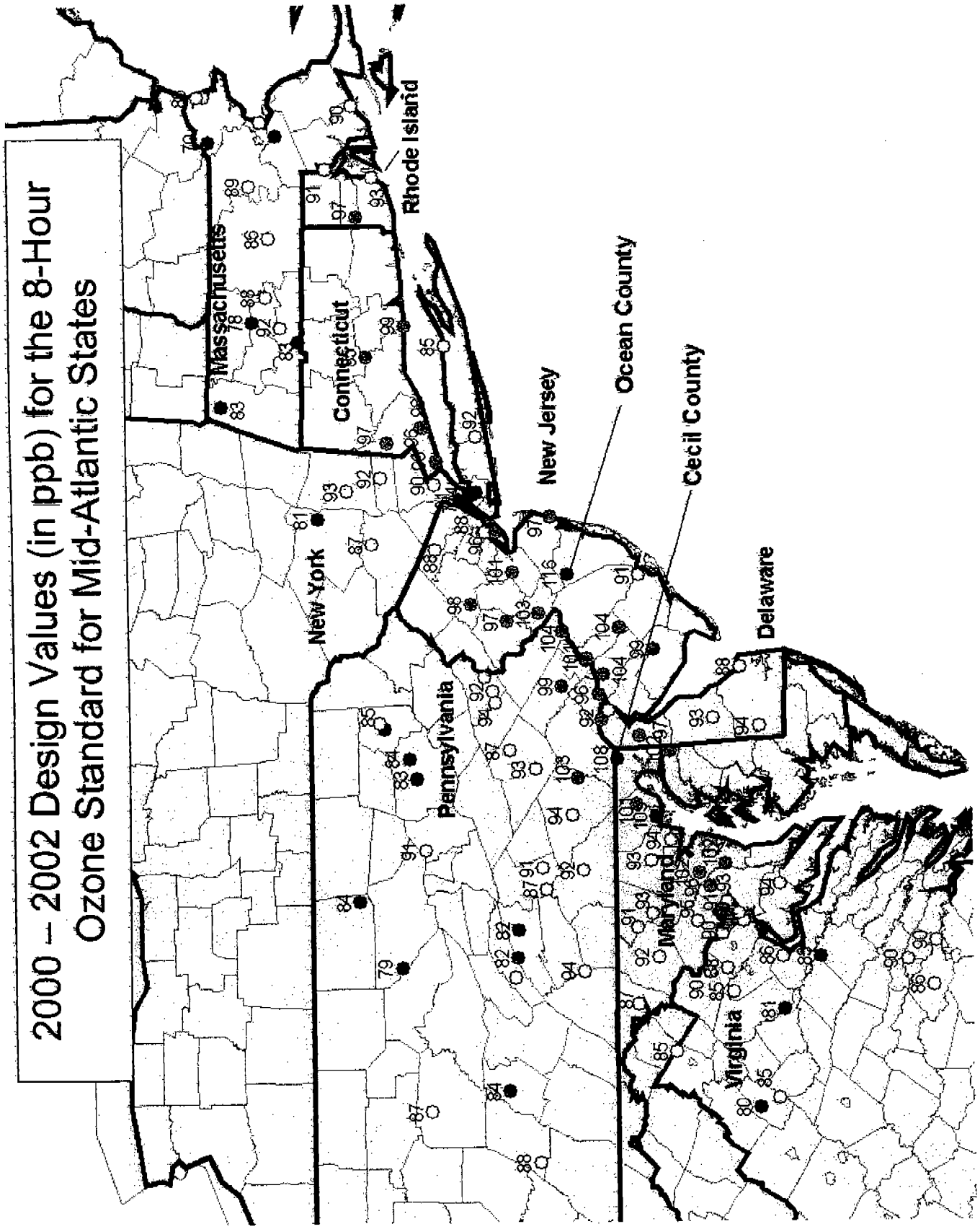
Further, it can be seen that the use of the eleven factors (or non-use as the case may be) does not result in nonattainment areas that comport with the legal tests of Clean Air Act §107 (d)(1)(A), i.e. linking contributing areas with exceeding areas (Enclosure 4). Twelve areas have high design values (95 parts per billion (ppb) or above) but only four of those areas are linked to upwind nearby contributing areas and, in two of these cases, only after the USEPA linked the proposed nonattainment areas through a required State Implementation Plan (SIP) condition. Twenty-two areas have moderate design values (85-94ppb) but only four of these areas are in

[7] USEPA Office of the Inspector General, August 15, 2002, "Consistency and Transparency in Determination of EPA's Anticipated Ozone Designations", Report No. 2002-5-00016.
[8] ibid, page 8.
[9] ibid.
[10] ibid, page 10.

nearby downwind exceeding areas and two only after being linked by a USEPA required SIP condition.

Applying the eleven factors to Ocean County, a logical conclusion cannot be reached that it belongs in a Northern New Jersey-New York 8-hour nonattainment area (Enclosure 5). As previously discussed, New Jersey believes that some of these factors are more important than others and, on this basis, New Jersey has divided the factors into "primary" and "secondary" factors. New Jersey believes that analysis of the primary factors, meteorology, monitoring data and emissions, is the best determinate for linking upwind sources to downwind receptors. Most of the secondary factors are actually included in the analysis of the primary factors, i.e. within the emission factors, many of which are based on vehicle miles traveled or population. An analysis of the eleven factors applied to Ocean County shows that all of the primary factors and most of the secondary factors would result in Ocean County being linked to a Southern New Jersey-Philadelphia nonattainment area.

Enclosure 2


2000 – 2002 Design Values (in ppb) for the 8-Hour Ozone Standard for Mid-Atlantic States
Massachusetts
Connecticut
Rhode Island
New York
New Jersey
Ocean County
Cecil County
Pennsylvania
Delaware
Maryland
Virginia

Enclosure 3 Review of the USEPA's Application of the CMSA Approach and of the USEPA's Use of the Eleven Factors in Making Their Recommendations for 8-Hour Ozone Nonattainment Boundaries

State (USEPA Region)	State recommended use of the CMSA Approach?	State Submitted Analysis of the USEPA Factors?	USEPA Modified State Recommendation?	Same as 1-Hr Ozone Nonattainment Area?	USEPA Defaults to the CMSA Area?	
	(Yes or No)	(Yes or No)	(Yes or No)	(Yes or No)	(Yes or No)	
Connecticut (Region 1)	No	No	No	No	No	USEPA Agreed to two non-CMSA Connecticut Areas and no linkage to existing CMSA boundaries
Maine (Region 1)	No	Yes	No	No	No	USEPA Agreed to area size less than CMSA and no linkage to existing CMSA boundaries
Massachusetts (Region 1)	No	Yes	No	No	No	USEPA Agreed to area size less than CMSA and no linkage to existing CMSA boundaries
New Hampshire (Region 1)	No	Yes	No	No	No	USEPA Agreed to area size less than CMSA and no linkage to existing CMSA boundaries but required State to have same classification as the Boston CMSA.
Rhode Island (Region 1)	No	No	No	Yes	No	USEPA Agreed to area size less than CMSA and no linkage to existing CMSA boundaries
Delaware (Region 3)	No	No	Yes	No	No	USEPA putting 2 of Delaware's counties that are not in the CMSA in a Philadelphia nonattainment area
Maryland (Region 3)	No	No	Yes	No	No	Conditional smaller area if use higher classification and design value of the Baltimore CSA.
Pennsylvania (Region 3)	Yes	No	Yes	No	No	Added counties and some counties outside the CMSA
Virginia (Region 3)	No	No	Yes	No	No	Conditional smaller area if use higher classification and design value of adjacent area.
New York (Region 2)	No	Yes	Yes	No	Yes	New York had recommended making 3 counties north of New York City a separate nonattainment area. These 3 counties are part of the CMSA. USEPA decided that the 3 counties could not be a separate area because they are in the same airshed and show linkage to the CMSA based on USEPA's guidance factors.
New Jersey (Region 2)	No	Yes	Yes	No	Yes	Ocean County could not be in the same airshed because it is in a different CMSA despite linkage to Philadelphia CMSA by USEPA's guidance factors.
North Carolina (Region 4)	No	Yes	Yes	No	No	USEPA would not allow smaller than county nonattainment area. Says " A Nationally Consistent view of the Eleven factors is essential to ensuring fair and equitable National implementation of the 8-hour ozone standard and achievement of public health protection for all citizens."
Vermont (Region 1)	NA	NA	No	NA	No	USEPA will designate State as Attainment

Enclosure 4 (continued)

State (USEPA Region)	Design Value (ppb)	Is Nonattainment Area in same area as nearby upwind sources?	Is the Nonattainment Area in the same area as nearby downwind exceedances?	Comments
Maryland - Baltimore Area	104	No	No	Cecil County Monitor
Maryland - Kent & Queen Annes Area	102	Yes - USEPA SIP linkage	No	USEPA Agreed to area size less than CMSA but requires State to use the same classification as the Baltimore CMSA.
Maryland - w/ Philadelphia (Cecil)	104	No	No	
Maryland - Washington Area	95	No	No	
Maryland - Hagerstown Area	87	NA	NA	Early Action Compact Area
Pennsylvania - Philadelphia Area	104	No-Contains Cecil County	No – USEPA decided not to include Ocean County, NJ	High ozone levels at Colliers Mills monitor in Ocean County, NJ
Pennsylvania - Pike County	No Monitor	No	No	USEPA is apparently going to designate Pike County as Attainment.
Virginia Frederick Area	85	NA	NA	Early Action Compact Area
Virginia Northern Va. / MD.Area	96	Yes - USEPA SIP linkage	Yes - USEPA SIP linkage	USEPA approving 6 separate areas from the Washington CMSA
Virginia Fredericksburg Area	83	Yes - USEPA SIP linkage	Yes - USEPA SIP linkage	Will use the same design monitor and classification as Washington, DC area.
Virginia Shenandoah Area	85	No	No	National Park in two County Area with no sources and over-whelming transport.
Virginia Roanoke Area	87	NA	NA	Early Action Compact Area
Virginia Richmond Area	90	Yes - USEPA SIP linkage	Yes - USEPA SIP linkage	Conditional smaller area if use higher classification and design value.
Virginia Hampton Roads (Norfolk)	89	Yes - USEPA included additional counties	Yes	

Enclosure 4 (continued)

State (USEPA Region)	Design Value (ppb)	Is Nonattainment Area in same area as nearby upwind sources?	Is the Nonattainment Area in the same area as nearby downwind exceedances?	Comments
New York Three County Area*	93	Yes - After USEPA includes additional counties	No *	USEPA decided 3 counties could not be a separate area because they are in the same airshed and show linkage to CMSA based on USEPA's guidance factors.
New Jersey Northern / New York*	100	No	Yes	USEPA decided Ocean County could not be in the same airshed because it is in a different CMSA despite linkage to Philadelphia CMSA by USEPA's guidance factors.
New Jersey Southern / Philadelphia*	109	No	No	
Vermont (Whole State)	Attainment	NA	NA	USEPA will designate State as Attainment

* At issue is the placement of the Design Value of 109 ppb from Ocean County. The Design Value shown here is the highest design value for the Region after Ocean County's Design Value of 109 ppb is removed.

* The design value of 109 in the Southern New Jersey / Philadelphia Region is from the Ocean County Monitor at issue here. If Ocean County is not in this Region, the Design Value would be 104 ppb for the Southern New Jersey / Philadelphia Region.

Enclosure 5 Analysis of Ocean County Using the Eleven USEPA Factors

USEPA Eleven Factors	Ocean County Evaluation	Technical Support
Meteorology (P)	Days above the 8 hour standard in 1997-9 were looked at and the 'backward' wind trajectories using the NOAA hy-split model at 500m were determined. The 'envelope' of backward wind trajectories shows that >90% of air coming into Ocean County is from areas NW/W/SW of Ocean County. Therefore, there is little impact on the Ocean County monitor from the New York metropolitan area.	Enclosure 5-1
Monitoring data (P)	Regional monitoring data clearly shows that the Colliers Mills, Ocean County monitor is affected by the Philadelphia urban area. The design value at Colliers Mills is greater than all the design values in Southern New Jersey, i.e. at the Ancora, Camden, Clarksboro, Millville and Rider monitors.	Enclosure 2
Emissions (P) Location of emission sources (S)	Modeling performed for the USEPA's recently released Interstate Air Quality Rule quantifies the impacts of upwind emission sources and shows that the states of Pennsylvania, Maryland, Delaware, Ohio and Virginia contribute, on average, 52 parts per billion to ozone levels in Ocean County and the states of New York, Connecticut, Rhode Island, Massachusetts, New Hampshire, Vermont, and Maine provide 0 ppb to ozone levels in Ocean County.	Enclosure 5-2
Population density & degree of urbanization (S)	Ocean County is at the outer southern edge of the Census Bureaus' New York CMSA. It is much less developed and has a lower population density than other counties in the CMSA and does not significantly contribute to the higher monitored design unless in the New York CMSA. As such, there is no reason why it could not be included with the Philadelphia metropolitan area where it more appropriately belongs.	Enclosure 5-3
Traffic and commuting patterns (S)	An analysis of commuting patterns in Ocean County shows that >65% of people who live in Ocean County work there or in areas south of there. The contribution to the total vehicle miles traveled in the New York area from Ocean County residents is small. Therefore, commuting patterns from Ocean County do not have as great an affect on Northern New Jersey and the New York area.	Enclosure 5-4
Expected growth (S)	Growth rates in Ocean County have been and are expected to remain fairly high. However, statewide requirements for State of the Art controls on new or modified sources, new source performance standards, and turn-over of older, more polluting vehicles and equipment, a statewide enhanced inspection and maintenance program and federal Tier 1 & 2 onroad vehicle standards are expected to offset any emission increases from growth sources.	
Geography (S)	The Northeastern Megalopolis is oriented SW to NE, as is the coast line and Appalachian Mountains. As a consequence, the low level jet which frequently develops during summer ozone events, increases the transport of ozone and precursors from SW of Ocean County towards the monitor at Colliers Mills.	

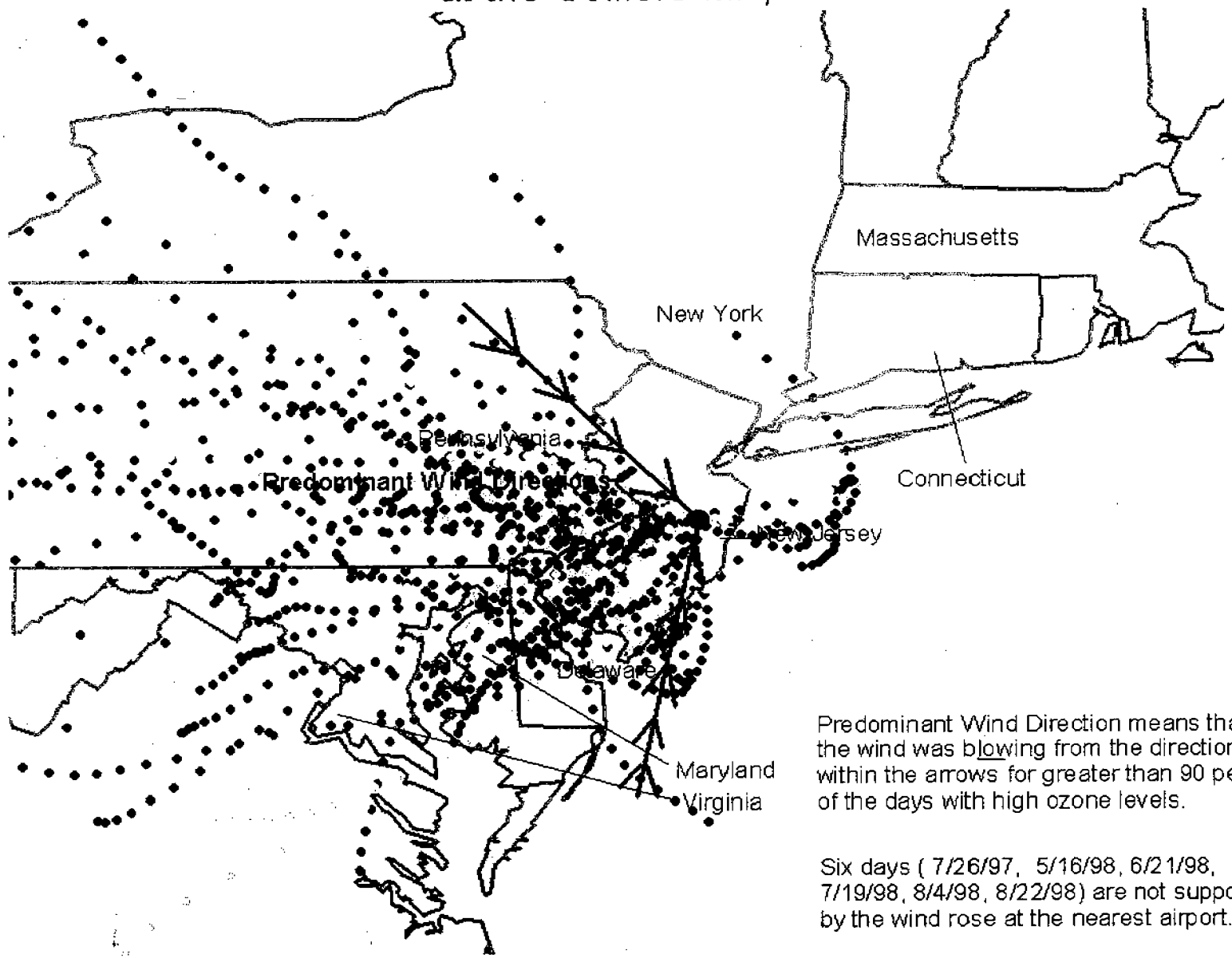
Level of control of emission sources (S)	New Jersey has been a leader in reducing emissions from all source sectors statewide. VOC and NOx emissions are already highly controlled in this State. The Department is considering further controls on smaller sources to reduce ambient ozone levels on a Statewide basis. These statewide controls will help reach attainment in those areas of the State and downwind regions that are not meeting the standard.	
Regional emission reductions (S)	All states in the region are participating in the NOx SIP Call, as well as national strategies to reduce emissions from vehicles, engines and fuels. In addition, many states in the region are participating in Ozone Transport Commission reduction measures for consumer products, mobile equipment refinishing, portable fuel containers and architectural coatings.	
Jurisdictional boundaries (S)	County boundaries were considered here. The southern New Jersey counties of Burlington, Camden, Gloucester, Salem, and Cumberland are included in the Philadelphia/Camden/ Wilmington Combined Statistical Area. The northern New Jersey counties of Bergen, Hudson, Passaic, Essex, Hunterdon, Morris, Sussex, Union, Middlesex, Monmouth, Ocean, Somerset, and Mercer are included in the New York/Newark/Bridgeport, NY-NJ-CT-PA Combined Statistical Area (CSA). A Combined Statistical Area is made up of two or more Metropolitan Statistical Areas (MSA's) when a high degree of employment interchange exists between the MSA's. The U.S. Census Bureau defines an MSA as " a core area containing a substantial population nucleus, together with adjacent communities having a high degree of social and economic integration with that core." These factors used by the U.S. Census Bureau, while potential indicators of urban areas and higher emissions, are not as relevant to the over-riding principles used by New Jersey to designate "nearby" areas that contribute to violations of an ambient air quality standard. New Jersey believes that the quantity of emissions in an area and the meteorology that moves those emissions from its point of release to a receptor are more important than the social, economic or employment interchange in an area. The definition of an MSA or CSA should not, therefore, be a primary factor in the selection of the size of the nonattainment area.	

Note: All this data was presented to the USEPA on May 22, 2003

(P) primary

(S) secondary

Predominant Wind Direction During High Ozone Days at the Colliers Mill, NJ Monitor



Predominant Wind Direction means that the wind was blowing from the direction within the arrows for greater than 90 percent of the days with high ozone levels.

Six days (7/26/97, 5/16/98, 6/21/98, 7/19/98, 8/4/98, 8/22/98) are not supported by the wind rose at the nearest airport.

Days Mapped

- C90797b.txt
- C81697b.txt
- C80997b.txt
- C80397b.txt
- C80297b.txt
- C72897b.txt
- C72697b.txt
- C71897b.txt
- C71797b.txt
- C71697b.txt
- C71597b.txt
- C71497b.txt
- C71397b.txt
- C70897b.txt
- C62597b.txt
- C62297b.txt
- C62197b.txt
- C62097b.txt
- C61297b.txt
- C61197b.txt
- C51997b.txt
- C92798b.txt
- C91298b.txt
- C90698b.txt
- C83098b.txt
- C82998b.txt
- C82498b.txt
- C82398b.txt
- C82298b.txt
- C82198b.txt
- C80498b.txt
- C72998b.txt
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- C53098b.txt
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- C52898b.txt
- C52098b.txt
- C51998b.txt
- C51698b.txt
- C81299b.txt
- C80799b.txt
- C80699b.txt
- C80599b.txt
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- C60899b.txt
- C60799b.txt
- C53199b.txt
- C52999b.txt
- C52299b.txt

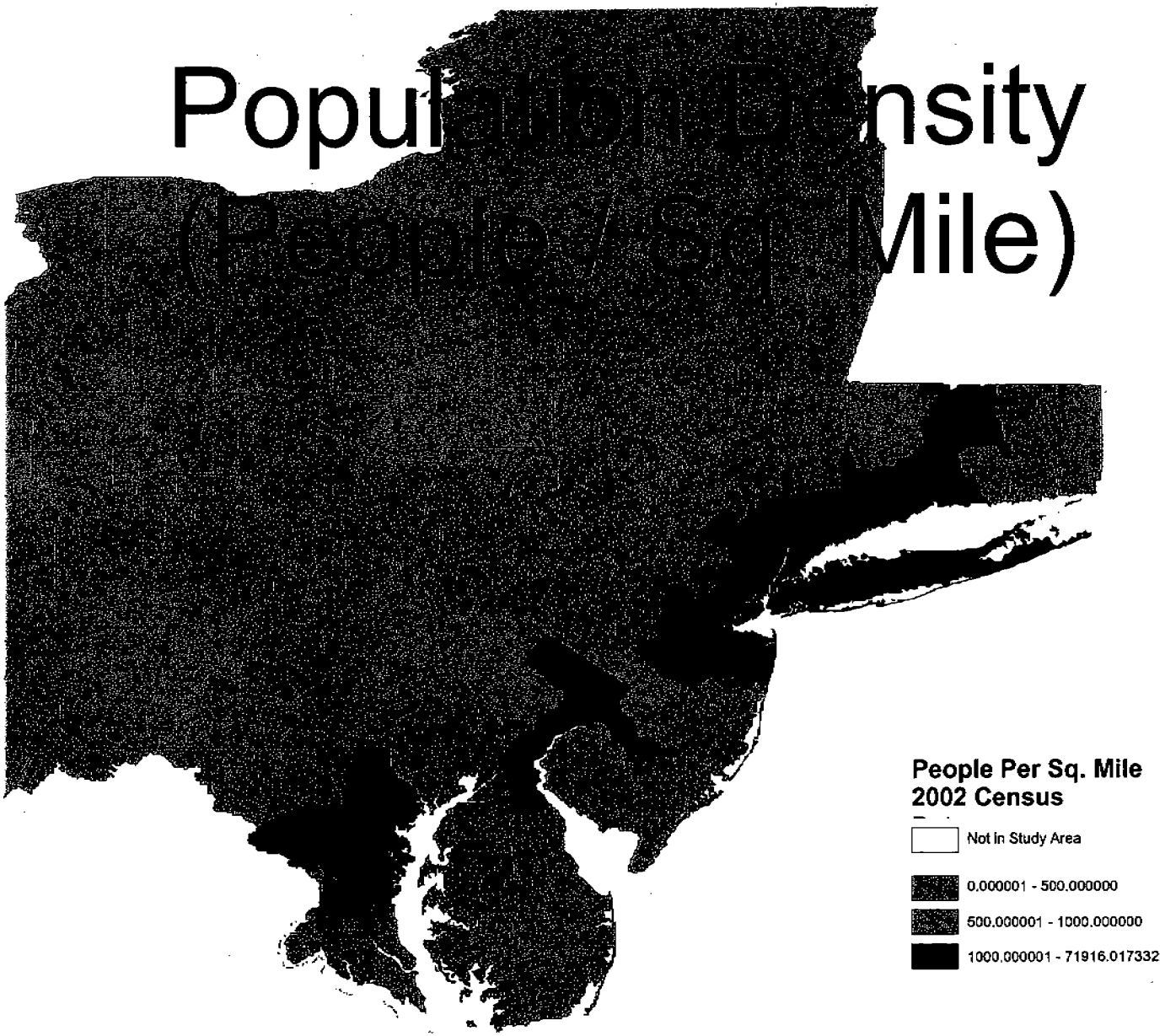
Enclosure 5-2 **From USEPA's Transport Rule Analysis:** Values presented are the average impacts (ppb) of each upwind State (columns) on 8-hour ozone greater than 85 ppb in each projected nonattainment county (rows) as indicated from CAMx source apportionment modeling.

EPA's Transport Rule Analysis								
Downwind 2010 Nonattainment Receptor Counties:	**Contributing States:**							
County	**NJ**	**PA**	**MD**	**DE**	**OH**	**VA**	**Total from States NW/W/SW of New Jersey**	**Total From States* N/NE/E of New Jersey**
Mercer NJ	10	35	7	5	3	2	52	1
Camden NJ	4	19	15	11	4	3	52	0
Ocean NJ	10	26	10	7	4	3	50	0
Monmouth NJ	19	29	7	5	3	2	46	1
Middlesex NJ	23	30	4	3	2	1	40	1
Morris NJ	21	30	3	3	3	3	42	2
Hudson NJ	29	22	3	2	3	2	32	2

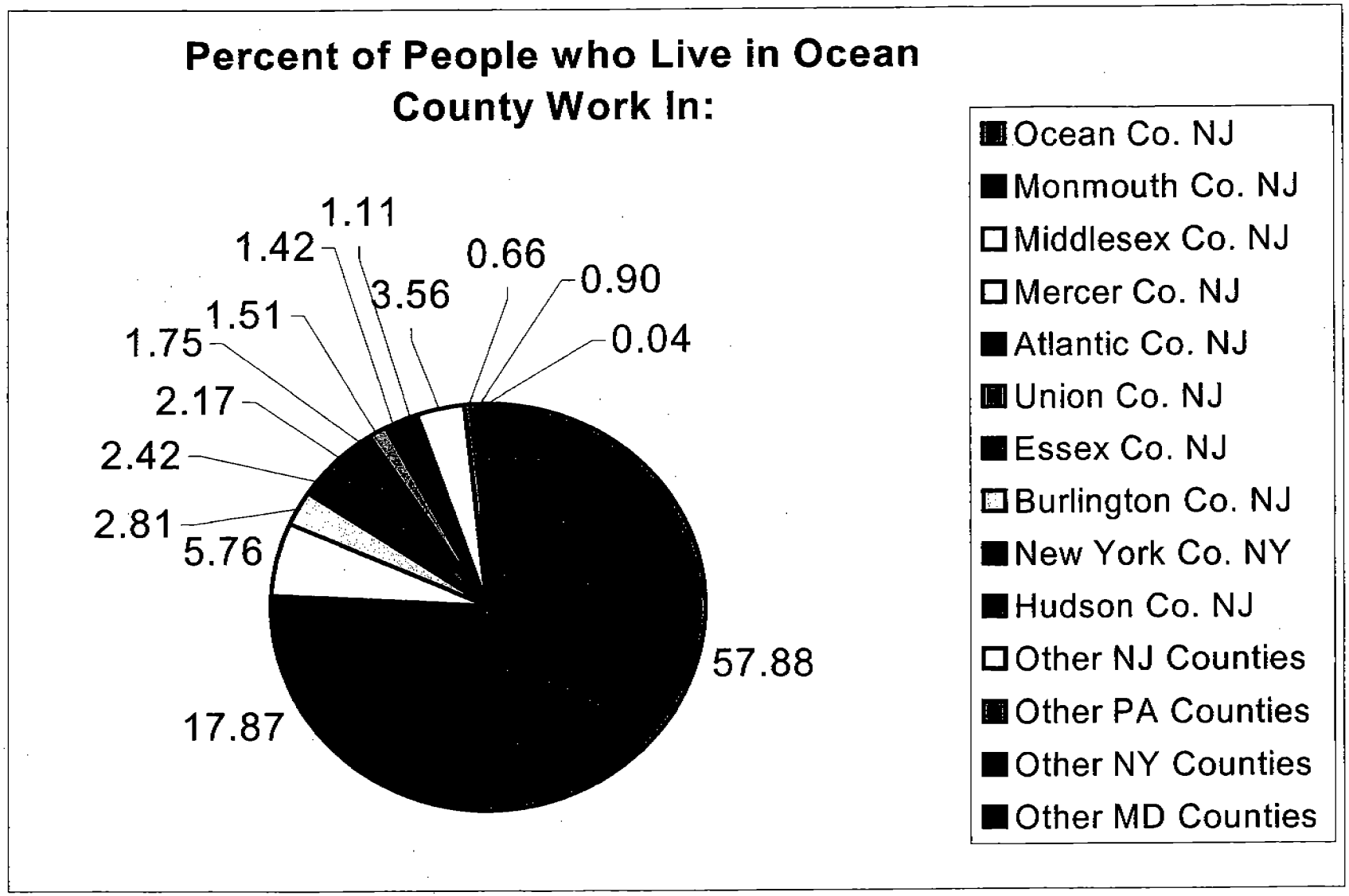
* This includes contributions from seven states, including New York and Connecticut.

Reference: Rule being submitted for publication in the Federal Register. 6560-50-P. ENVIRONMENTAL PROTECTION AGENCY. 40 CFR Parts 51, 72, 75, and 96 [FRL-] Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Interstate Air Quality Rule) http://www.epa.gov/air/interstateairquality/iaqr_preamble_final_v1.pdf

Population Density (People/Sq Mile)



Enclosure 5-3



Reference: http://www.epa.gov/ttn/naaqs/ozone/areas/misc/work_34.html