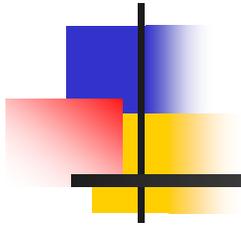


Pennsylvania Air Quality Issues

U.S. Department of Agriculture Agricultural Air Quality Task Force Meeting

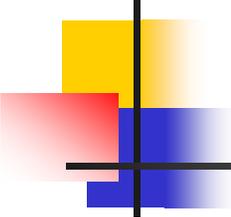


Thomas K. Fidler

Deputy Secretary

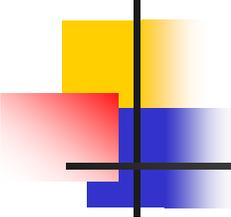
Department of Environmental Protection

August 30, 2006



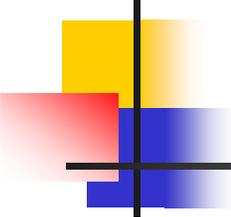
Air Quality Resources-Declaration of Policy

- It is the policy of the Commonwealth of Pennsylvania to protect the air resources of the Commonwealth to the degree necessary for the:
 - Protection of public health, safety and well-being of its citizens;
 - Prevention of injury to plant and animal life and to property;
 - Protection of the comfort and convenience of the public and protection of recreational resources;
 - Development, attraction and expansion of industry, commerce and agriculture; and
 - Implementation of the provisions of the federal Clean Air Act in the Commonwealth.



Air Quality Issues Covered

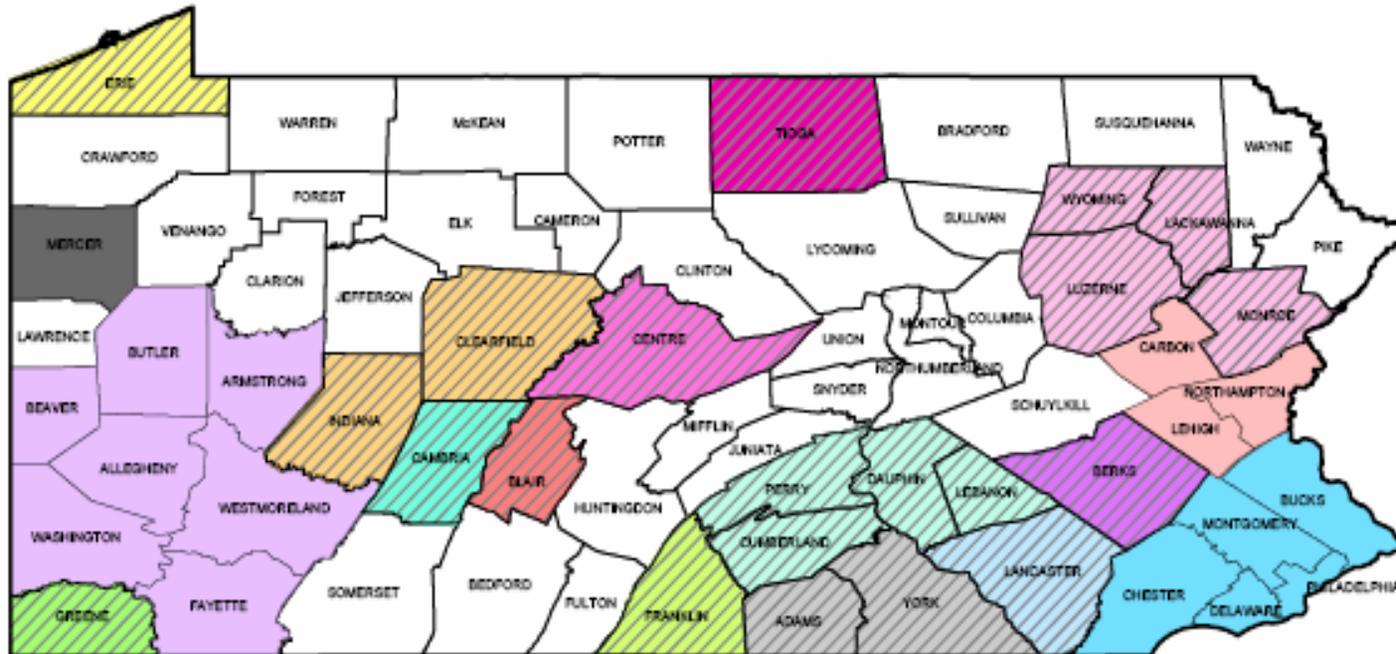
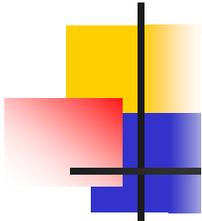
- Ozone
- PM2.5
- Regional Haze
- Clean Vehicles
- Mercury
- Regulation of Agricultural Sources
- Agriculture



Ozone National Ambient Air Quality Standard

- Ground level ozone is formed by combined emissions of nitrogen oxides and volatile organic compounds in the presence of sunlight.
- Eight-hour ozone health-based standard:
 - In April 2004, EPA designated 37 counties in Pennsylvania as nonattainment areas.
 - State Implementation Plans must be developed for these areas by 2007.
- Ozone's impacts crops by increasing susceptibility to disease, insects, and other pollutants and reducing crop yields.
- Approximately 3,890,000 Pennsylvanians continue to be exposed to unhealthy levels of ozone.

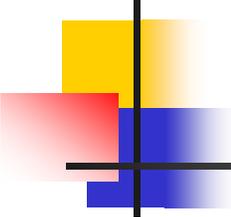
8 Hour Ozone Nonattainment Areas



 Areas For Which 8-Hour Redesignations are Being Developed

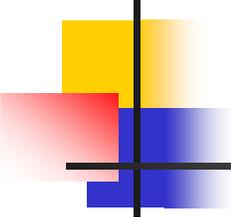
Nonattainment Areas

 Allentown-Bethlehem-Easton, PA	 Harrisburg-Lebanon-Carlisle, PA	 Scranton-Wilkes-Barre, PA
 Altoona, PA	 Johnstown, PA	 State College, PA
 Clearfield-Indiana, PA	 Lancaster, PA	 Tioga Co, PA
 Erie, PA	 Philadelphia-Wilmington-Atlantic_City_PA-DE-MD-NJ	 York, PA
 Franklin Co, PA	 Pittsburgh-Beaver Valley, PA	 Youngstown-Warren-Sharon_OH-PA
 Greene Co, PA	 Reading, PA	



Eight-Hour Ozone Redesignation Requests

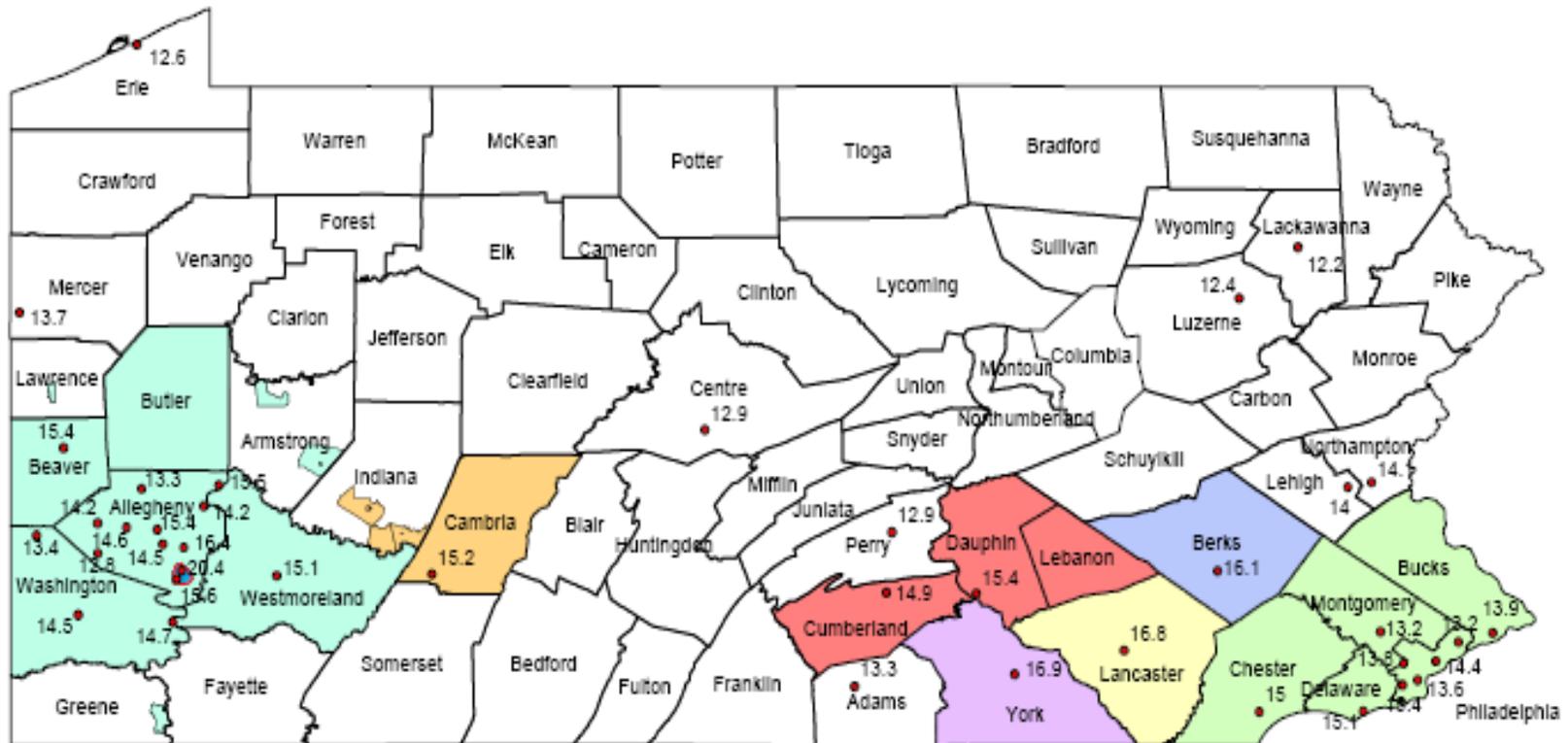
- Many areas are monitoring attainment; redesignation requests and maintenance plans are being developed.
- Lancaster County Redesignation Request and Maintenance Plan completed.
 - Public hearing held on August 8, 2006.
 - Comments being summarized.
- Tioga County Redesignation Request and Maintenance Plan published for comment.
 - Public hearing will be held on September 5, 2006
- Other redesignation requests under development for counties including:
 - Blair, Berks, Cambria, Centre, Clearfield, Dauphin, Erie, Franklin, Greene, Indiana, Monroe, Luzerne, and York Counties .



PM2.5 National Ambient Air Quality Standard

- Promulgated by EPA in 1997.
- Designations effective April 5, 2005.
- Annual standard – 15 ug/m³.
- 24-hour standard – 65 ug/m³.
- Pennsylvania has 17 counties and 4 partial counties that exceed the annual standard.
 - Approximately 6,926,000 Pennsylvanians live in nonattainment counties.
- No counties exceed the current 24-hour standard.
- Plans to demonstrate attainment must be submitted to EPA in April 2008.
- States must attain the standard by April 2010.

PM2.5 Nonattainment Areas

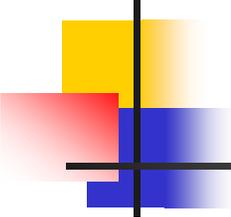


2004 PM 2.5 Annual Design Values are in black (next to monitor location in red)

PM 2.5 Designations

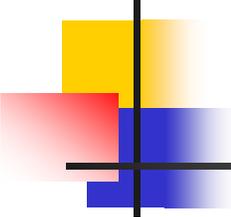
- | | | |
|---|---|--|
|  Attainment Counties |  Lancaster, PA |  Reading, PA |
|  Harrisburg-Lebanon-Carlisle, PA |  Philadelphia-Wilmington, PA-NJ-DE |  York, PA |
|  Johnstown, PA |  Pittsburgh, PA |  Liberty-Clairton |

Areas are Shaded Based on EPA's December 17, 2004 Designations and as Amended on April 14, 2005



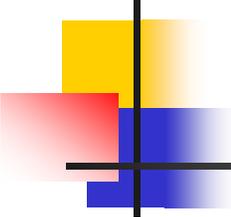
Agriculture and PM2.5

- Elevated annual PM2.5 concentrations have been recorded in certain areas in Pennsylvania including Allegheny, Berks, Lancaster and York Counties.
- Cultivation, harvesting, open burning and drying operations can cause PM2.5 precursor emissions including ammonia, sulfur oxides, nitrogen oxides, and organic compounds.
- Animal Feeding Operations (AFO) are a source of particulate matter emissions.



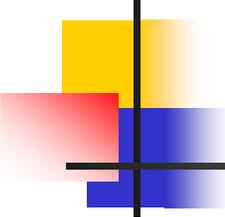
Regional Haze

- The Clean Air Act requires states to address visibility problems in Class I areas - national parks, wilderness areas.
- Visibility is the ability to see distances and is impacted by regional haze.
- Regional Haze is caused by PM_{2.5} and its precursors.



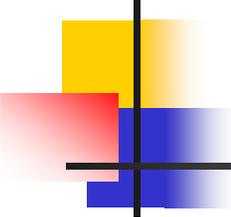
Regional Haze

- Sources in Pennsylvania contribute to Regional Haze:
 - Electric generating units, refineries, cement plants, paper plants, chemical plants, lime plant, steel plant, smelter, and other facilities
- PA is required to develop a plan within 3 years and submit the plan to EPA along with the PM2.5 Plan.
- Pennsylvania is working with the Mid-Atlantic Northeast Visibility Union, a regional planning organization, to develop regional strategies to improve visibility.



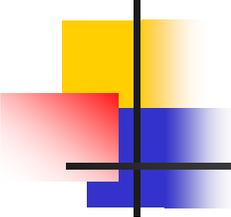
Pennsylvania Clean Vehicles Program

- In October 2005, the Environmental Quality Board (EQB) approved proposed amendments to the existing Clean Vehicles program. The proposed rulemaking:
 - Postpones implementation of California Low Emission Vehicle II requirements until Model Year 2008.
 - Provides for public outreach and flexibility for automobile industry.
 - Clarifies and updates existing regulation to avoid unnecessary costs and confusion.
 - Includes amendments addressing out-of-state vehicles and notice procedures for changes to the CA LEV requirements.
- EQB consideration of the final rulemaking in September 2006.



Nonroad Vehicles Standards

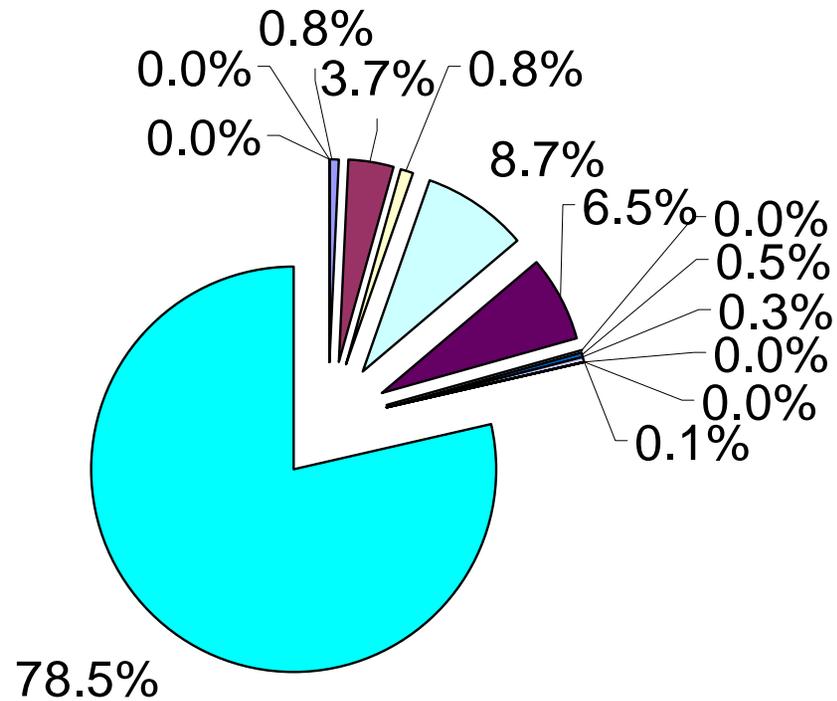
- EPA adopted in May 2004 new nonroad diesel regulations that apply to:
 - Construction, agricultural, and industrial equipment.
 - Farm equipment standards become effective with the 2011 – 2013 model years.
 - Sulfur in fuel reduced to 500 ppm in 2007 and to 15 ppm in 2010.
- Nonroad diesel engines that are affected by the new standards currently account for about 47 percent of diesel PM emissions and about 25 percent of total NO_x emissions from mobile sources nationwide.



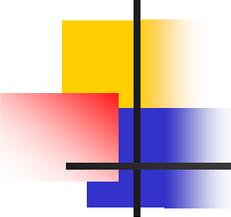
Emissions of Mercury

- Mercury is emitted by natural and man-made sources.
- Mercury is deposited and converted to methylmercury.
- Methylmercury can cause:
 - Mental retardation, cerebral palsy, deafness, blindness, motor impairment, etc.

Pennsylvania Sources of Mercury 2004 Toxic Release Inventory

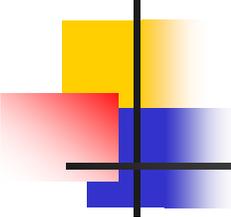


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|---------------------------------|-----------------------------------|-------------------------|
| ■ 26 Paper | ■ 28 Chemicals | ■ 29 Petroleum |
| ■ 32 Stone/Clay/Glass | ■ 33 Primary Metals | ■ 34 Fabricated Metals |
| ■ 36 Electrical Equip. | ■ 37 Transportation Equip. | ■ 38 Measure/Photo. |
| ■ 39 Miscellaneous | ■ 12 Coal Mining | ■ 49 Electric Utilities |
| ■ 5171 Petroleum Bulk Terminals | ■ 4953/7389 RCRA/Solvent Recovery | |



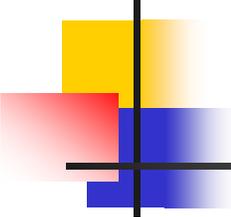
PA's Proposed Mercury Rule

- Achieves at least an 80% mercury emissions reduction by January 1, 2010, and at least a 90% reduction by January 1, 2015.
 - These emission reductions are nearly 40 percent greater and achieved in less time than under the federal rule.
- Requires all facilities to meet a mercury emissions cap and prohibits system-wide and interstate mercury emissions trading to meet the annual limit.



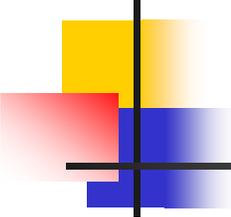
Mercury Rulemaking Process

- On May 17, 2006, the proposed rulemaking was approved for public review and comment.
- Proposal published on June 24, 2006 in the Pennsylvania Bulletin.
 - Comment period closed August 26, 2006.
- Over 8,200 comments have been submitted.
- On October 17, the final form rulemaking will be considered for adoption.



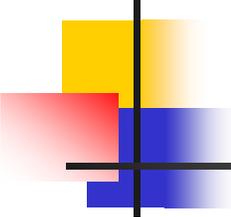
Agriculture and Air Quality

- Air emissions from agricultural operations contribute to:
 - Elevated ozone and particulate levels.
 - Public health issues.
 - Reduced visibility.
 - Odor concerns.
- PA's Air Pollution Control Act limits DEP's authority to regulate emissions from agricultural operations.



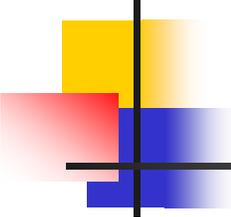
Agricultural Exemption

“Except as may be required by the Clean Air Act or the regulations promulgated under the Clean Air Act, this act shall not apply to the production of agricultural commodities and the Environmental Quality Board shall not have the power nor the authority to adopt rules and regulations relating to air contaminants and air pollution arising from the production of agricultural commodities.”
Section 4.1 APCA



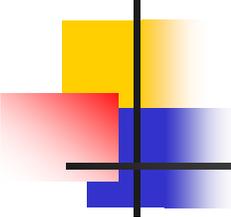
Agricultural Exemption

- The “production of agricultural commodities” include the:
 - Commercial propagation, production, harvesting or drying on the premises of the farm operation or the disposal of residual materials resulting from the commercial propagation, production, harvesting or drying on the premises of the farm operation of field crops, fruits, vegetables, horticultural specialties, livestock and livestock products, timber and wood products, and aquatic plants and animals.



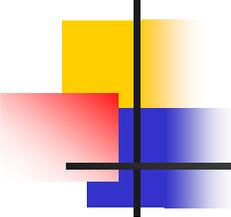
Agricultural Exemption

- The “production of agricultural commodities” also include the:
 - Processing of agricultural commodities propagated, produced, harvested or dried on the premises of the farm; or the disposal of residual material resulting from such processing.
- Any odor, malodor or fugitive air emission resulting from the production, processing or storage of any material is exempted.



Agriculture and Air Quality

- Significant uncertainty and lack of emissions data regarding:
 - Level of emissions from agricultural activities
 - Impacts of emissions
- The monitoring of AFO emissions is difficult and expensive.



Coordination with Agriculture

- The Department of Environmental Protection meets regularly with the Air Quality – Agricultural Task Force.
 - Investigating potential voluntary projects.
 - Exchange information and promote communication.
- Participate in development of projects related to the Agriculture, Communities, and Rural Environments (ACRE) initiative.

Questions?

