

Transportation Air Quality Issues

2012 WVDOT/MPO/FHWA Transportation Planning and Programming Conference

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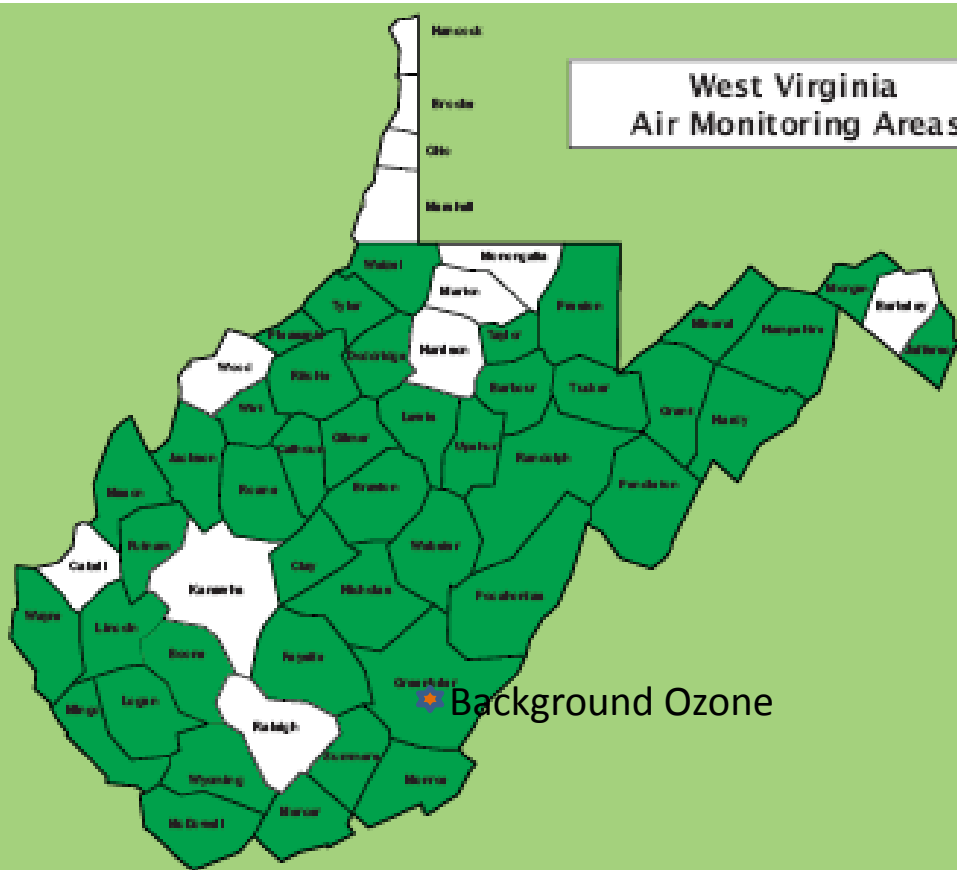
NAAQS

National Ambient Air Quality Standards

- NAAQS exist for the following pollutants:
 - Ozone (O_3)* [precursors: Nitrogen Oxides (NO_x) & Volatile Organic Compounds (VOC)]
 - Sulfur Dioxide (SO₂)
 - Nitrogen Dioxide (NO₂)*
 - Carbon Monoxide (CO)*
 - Lead (Pb)
 - Particulate Matter (PM)
 - PM₁₀
 - PM_{2.5}*

* = Key Transportation-Related Pollutant

Pollutant	Sources	Health Effects	Environmental Effects
<p>Carbon Monoxide (CO) Colorless, odorless poisonous gas, formed when carbon in fuels is not burned completely</p>	<p>Burning of gasoline, wood, natural gas, coal, oil, etc. (motor vehicle exhaust, industrial processes, fuel combustion)</p>	<p>Reduces oxygen delivery to the body's organs and tissues, causes visual impairment, and reduces work capacity, manual dexterity, and learning ability</p>	<p>A precursor to ozone and a useful tracer of combustion-derived pollutants</p>
<p>Lead (Pb) Solid metallic element</p>	<p>Aviation fuel, paint, metal smelters, battery plants, steel plants</p>	<p>May cause anemia, kidney disease, reproductive disorders, behavioral disorders, neurological impairments (seizures, mental retardation)</p>	<p>Harmful to wildlife</p>
<p>Nitrogen Dioxide (NO₂) From the nitrogen oxide family, forms when fuel is burned at high temperatures</p>	<p>Burning of gasoline, natural gas, coal, oil, etc. (diesel trucks, wood stoves, power plants, cars)</p>	<p>Irritates the lungs, lowers resistance to respiratory infections, increases incidence of acute respiratory illness in children</p>	<p>Contributes to acid rain and eutrophication (a reduced amount of oxygen) in coastal waters, which is destructive to fish and other animal life</p>
<p>Ozone (O₃) Chemical reaction of nitrogen oxides and volatile organic compound emissions (primary component of smog)</p>	<p>Gasoline vapors, chemical solvents, combustion products of various fuels, consumer products</p>	<p>Reduces lung function, induces respiratory inflammation, asthma, chest pain, coughing, nausea, pulmonary congestion</p>	<p>Damage to plants and trees, reduced visibility due to smog, permanent structural damage to the lungs of animals</p>
<p>Particulate Matter (PM₁₀, PM_{2.5}) Solid or liquid particles found in the air, originates from a variety of mobile and stationary sources</p>	<p>Burning of wood, diesel, and other fuels (diesel trucks, wood stoves, power plants), agriculture (plowing and burning of fields), unpaved roads</p>	<p>Effects on breathing and respiratory system, damage to lung tissue, nose and throat irritation, cancer, premature death</p>	<p>Reduced visibility, damage to manmade materials when acidic</p>
<p>Sulfur Dioxide (SO₂) From the sulfur oxide family, forms when fuel containing sulfur is burned</p>	<p>Burning of coal and oil, diesel engines, industrial processes (metal smelting, paper, oil refining)</p>	<p>Effects on breathing, respiratory illness, alterations in pulmonary defenses, aggravation of existing cardiovascular disease</p>	<p>Damage to the foliage of trees and agricultural crops, acidification of lakes and streams, accelerated corrosion of buildings and monuments, reduced visibility</p>



Most monitors are located in relatively high population areas... a few are located in remote areas to approximate “background” levels.

Air Monitoring requires highly sophisticated mechanical & electronic equipment; very expensive; few suppliers; high maintenance; and samples/data have strict “chain of custody” requirements.





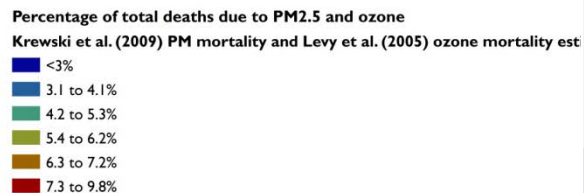
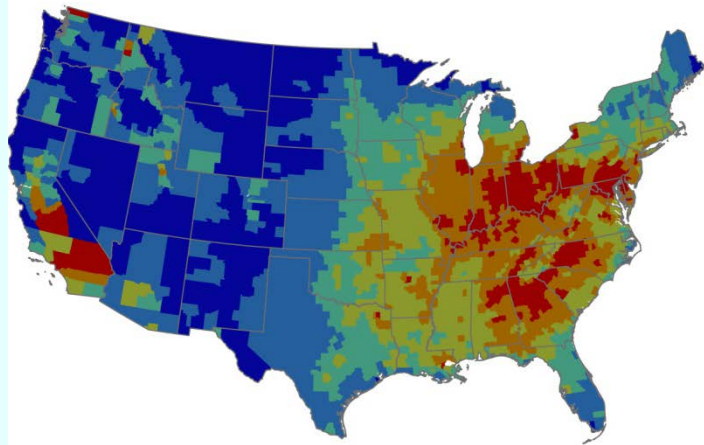
NAAQS and Attainment

- When an area violates a NAAQS standard it is designated as a “Nonattainment Area”
 - Attainment / Nonattainment designations are made individually for each NAAQS pollutant
 - Once designated, plans must be created to bring the area back into attainment
 - When an area achieves attainment of the NAAQS
 - Area is redesignated as a “Maintenance Area”
 - Maintenance areas are required to have a plan to achieve attainment for 20 years (10 + 10)

Public Health Burden of PM_{2.5} and Ozone

Fann, N., et. al (2011), Estimating the National Public Health Burden Associated with Exposure to Ambient PM_{2.5} and Ozone. *Risk Analysis*. May 31, 2011. doi: 10.1111/j.1539-6924.2011.01630.x

Percentage of total deaths due to 2005 levels of PM_{2.5} and ozone air pollution by county



- Premature deaths highest in Southern California, Southeast, Northeast and Industrial Midwest.
- Cities with the greatest mortality burden include L.A., Chicago, Detroit, Pittsburgh, Houston, New York, Philadelphia and Boston.

Summary of PM_{2.5} & Ozone Impacts due to 2005 Air Quality

Excess deaths (adults) ^A	130,000 to 340,000
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Percentage of all deaths attributable to PM _{2.5} and O ₃ ^A	6% to 15%
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Percentage of Ischemic Heart Disease deaths due to PM _{2.5}	19%
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Number of life years lost due to PM _{2.5} and ozone (ages 65+)	1.1 million
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Increase in life expectancy at birth from a zero-out of human-cause PM _{2.5} and ozone	0.7 years
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^A Range reflects use of alternate PM and ozone mortality estimates

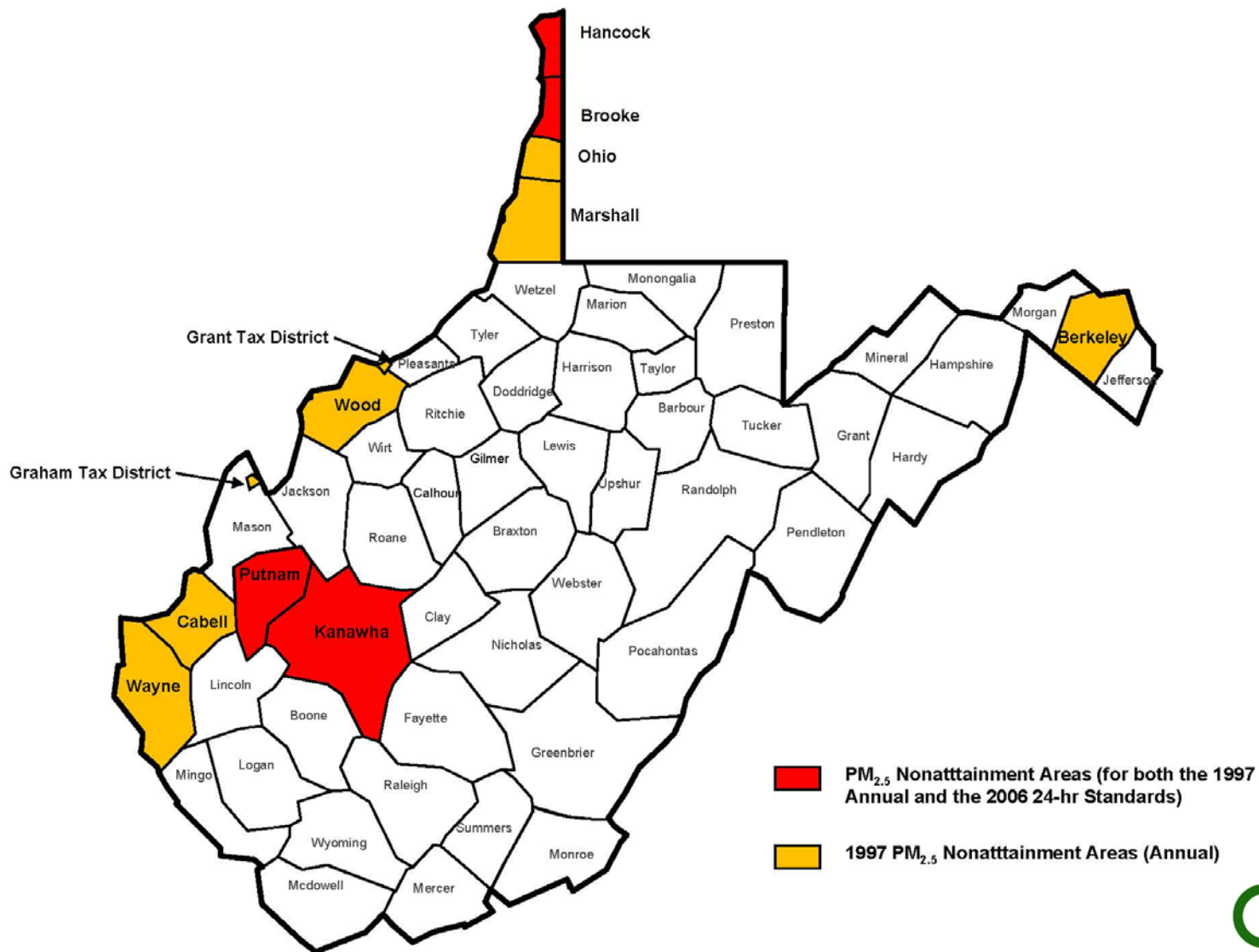
Health Impacts Attributable to 2005 PM_{2.5} and Ozone Levels

Health endpoint and study	Incidence estimate (90% confidence intervals)
PM_{2.5}-Related Premature Deaths	
Krewski et al. (2009) (ages 30+)	130,000 (51,000—200,000)
Laden et al. (2006) (ages 25+)	320,000 (180,000—440,000)
Ozone-Related Premature Deaths	
Bell et al. (2004) (all ages)	4,700 (1,800—7,500)
Jerrett et al. (2009) (ages 30+)	19,000 (7,600—29,000)

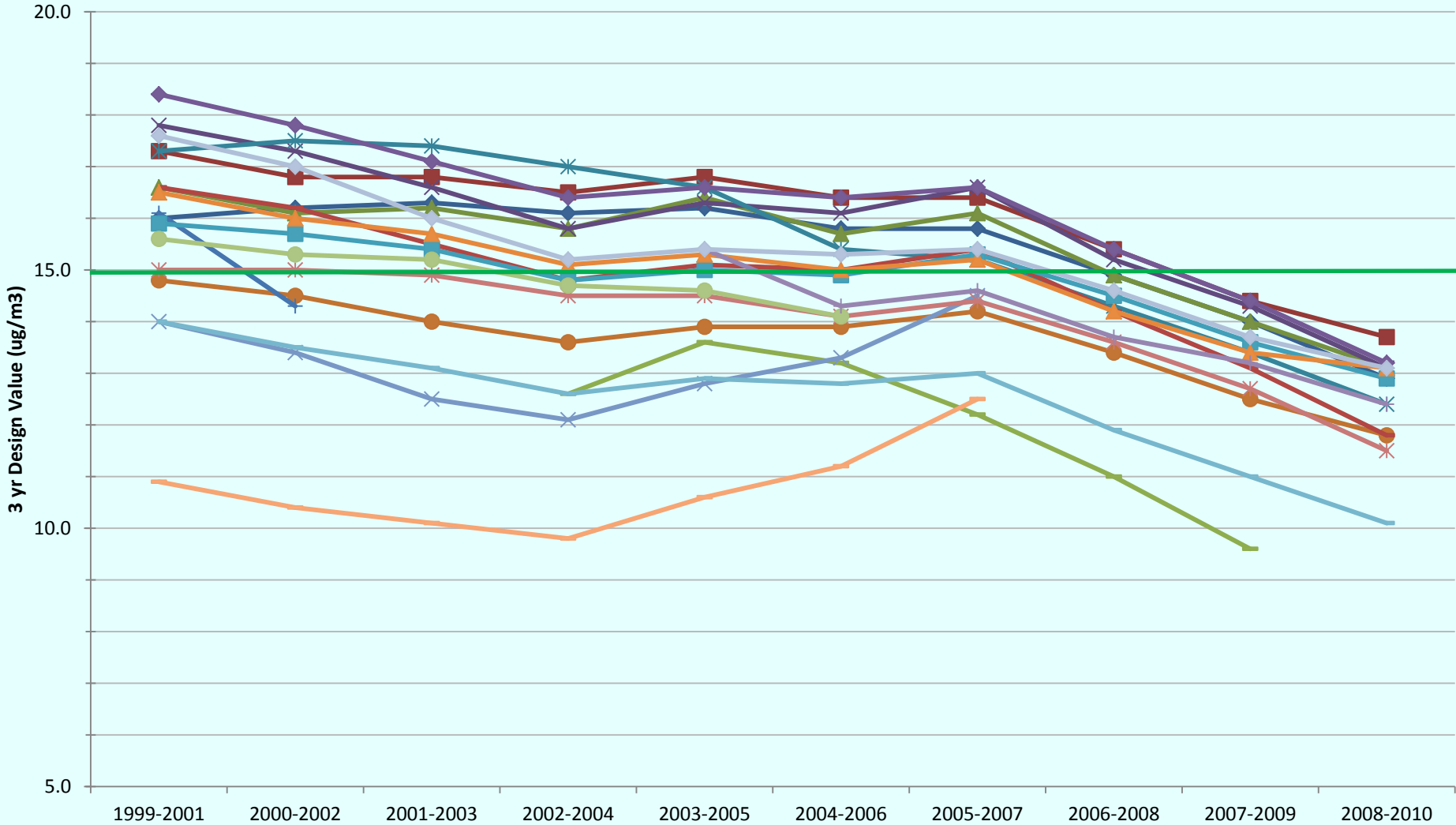
Health endpoint and study	Incidence estimate (90% confidence intervals)
Non-fatal heart attacks (age > 17)	180,000 (70,000—270,000)
Cardiovascular and Respiratory Hospital Admissions (all ages)	150,000 (73,000—210,000)
Emergency Room Visits, Respiratory (all ages)	130,000 (67,000—210,000)
Acute Bronchitis (age 8-12)	200,000 (-7,600—350,000)
Work Loss Days (ages 18-65)	18 million (15 – 20 million)
Asthma Exacerbation (asthmatics aged 6-18)	2.5 million (0.28 – 6.8 million)
Acute Respiratory Symptoms (ages 18-65)	130 million (100 – 160 million)
Lower Respiratory Symptoms (ages 7-14)	2.4 million (1.2 – 3.5 million)
Upper Respiratory Symptoms (asthmatics aged 9-18)	2 million (0.64 – 3.4 million)
School absence days	11 million (4.5 – 16.0 million)

Indicates some or all impacts occur among children

Non-Attainment Areas in West Virginia



WV PM_{2.5} Annual Design Values 1999-2001 through 2008-2010



- ◆ Martinsburg
- Weirton-05
- ▲ Weirton-11
- × Huntington
- ✦ Weirton-04
- Clarksburg, WV
- + Charleston-09, WV
- Charleston-10, WV
- Charleston-11, WV
- Charleston-05, WV
- Fairmont, WV
- ▲ Wheeling-02
- × Bluefield
- ✦ Morgantown, WV
- Wheeling-08
- + Wheeling-10
- Beckley, WV
- Summers
- Parkersburg

What is a SIP?

- The Clean Air Act establishes specific responsibilities between the federal government (EPA) and States/Tribes
- The State Implementation Plan (SIP) is an air quality plan that explains how the state will attain & maintain the National Ambient Air Quality Standards (NAAQS)
- SIPs provide for the implementation and enforcement of emission control measures from all source categories (e.g., mobile, stationary, etc.)
- Original SIPs were created in the 1970's...
- Technically, the state submits **REVISIONS** to the SIP, which is a dynamic, evolving compilation of the State's obligations related to air quality. There is NO practical "copy" of the SIP!

42 U.S.C. 7410(a)(2)

What is a SIP?

- The WV SIP elements (19 plans & 25 Rules) are outlined at: 40 CFR Part 52 Subpart XX or:
<http://yosemite.epa.gov/r3/r3sips.nsf/SIPIndex!OpenForm&Start=1&Count=1000&Expand=6&Seq=1>
- Plus we have nearly 3000 air permits that have federally enforceable conditions (e.g. contain emission limits; operating constraints, recordkeeping; & reporting requirements)
- SIP preparation is:
 - Required by the Clean Air Act
 - Prepared by the State and approved by the US EPA
 - Prepared within three years after the effective date of a nonattainment designation
- States must involve the public, through hearings and opportunities to comment, in the development of each SIP.

Types of SIPs

- There are several types of SIPs:
 - **Control strategy SIPs**
 - **Attainment**
 - Rate of progress
 - **Maintenance Plans**
 - **Conformity SIPs**
- SIPs may contain Motor Vehicle Emission Budgets, MVEBs (except Conformity SIPs)
- Requirements depend on pollutant and classification

Attainment SIPs

- Shows how a nonattainment area will attain the NAAQS for the pollutant in violation
- Certain areas that are designated nonattainment for a given pollutant are required to demonstrate attainment using air quality modeling
- Demonstration includes specific reductions to attain NAAQS by attainment dates
- Attainment dates are generally determined by the pollutant and an area's classification

Consequences of SIP Deficiencies

- Sanctions may occur due to SIP deficiencies:
 - Non-submittal, incompleteness, lack of implementation, or disapprovals
- Sanctions are not imposed for maintenance plan failures
- Once an area is officially notified, the sanction's clock is triggered
 - Eighteen months later – offset sanction on stationary sources imposed
 - Six months after offset sanctions, highway sanctions will be imposed
 - State has a total of 24 months to correct a SIP deficiency

SIP Inventories

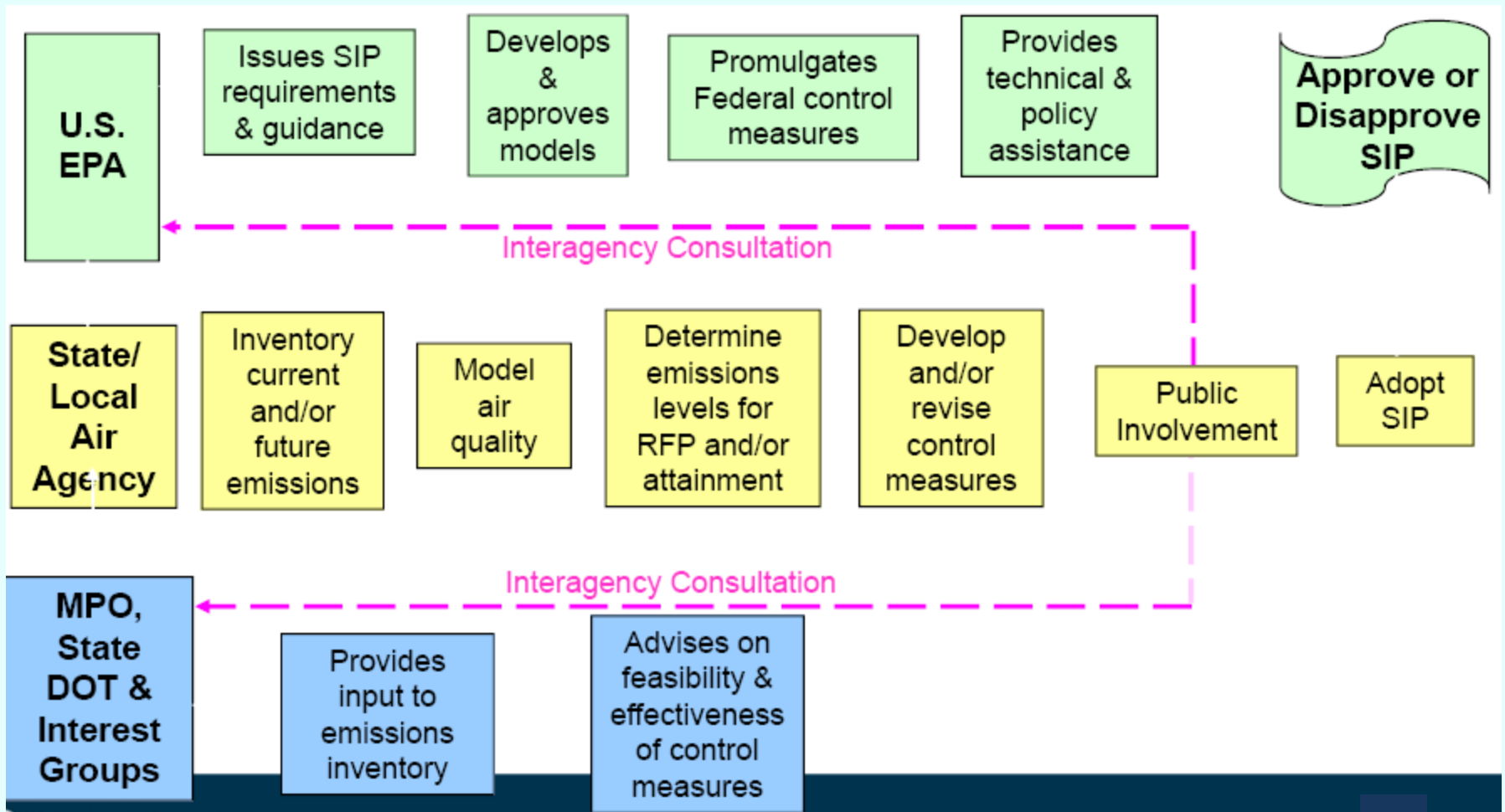
- Inventories are a detailed accounting of all emissions and emissions sources (stationary, mobile, area, and biogenic)
- Mobile source inventories required periodically until attainment
- Helps define the extent of the pollution problem
- Used as the basis for:
 - Establishing emissions reductions targets to enable the area to attain the NAAQS
 - Setting caps on emissions

42 U.S.C. 7502(c)(3)

Maintenance Plans

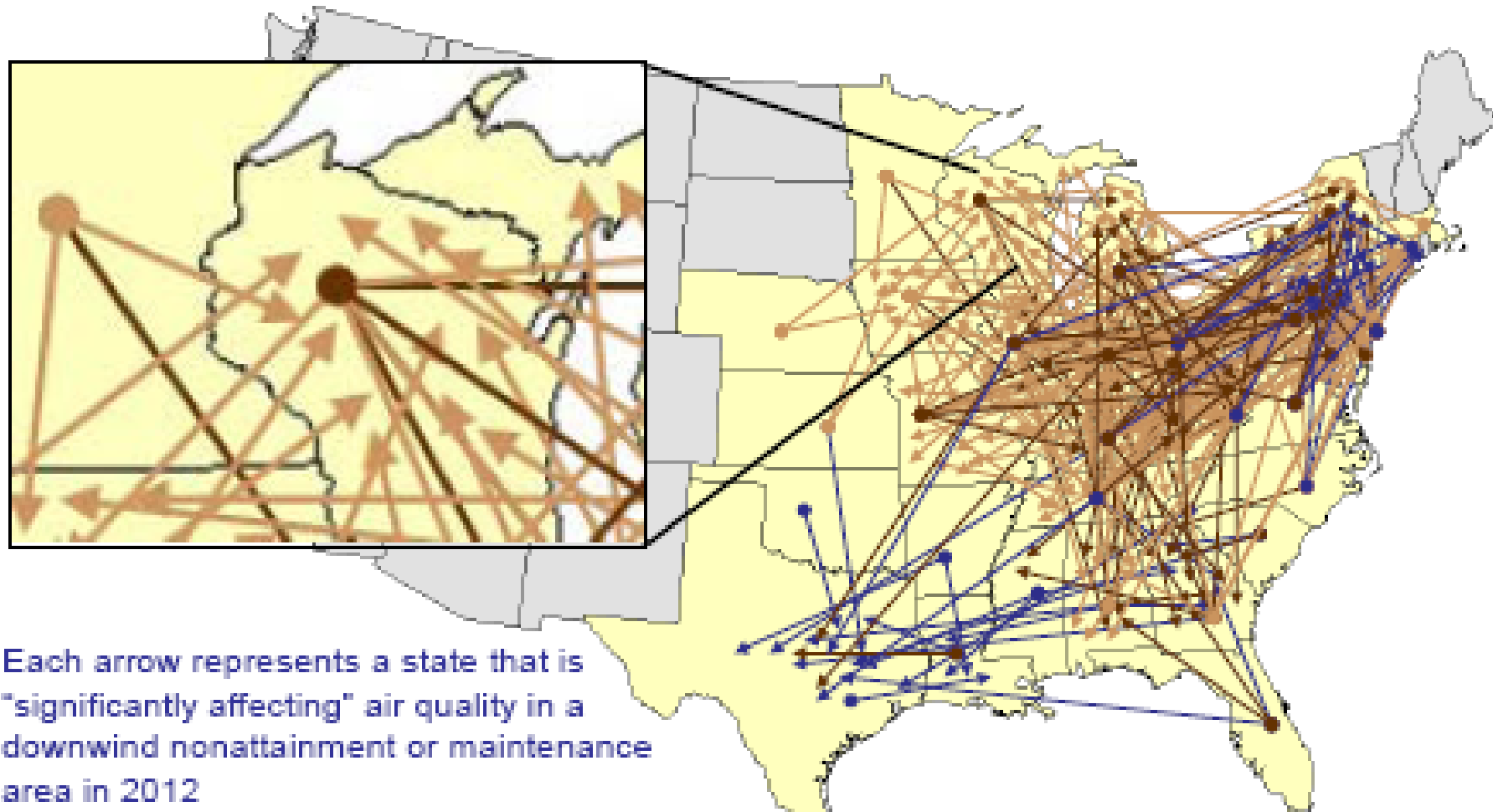
- Maintenance plans are developed once an area can demonstrate that it meets the NAAQS
 - Three years with no violations on monitors
 - Approved plan is required for redesignation
 - Plan assures maintenance of standards for 20 years after redesignation (two 10-year periods)

Typical SIP Development Process





Air Quality in Any One Place is Affected by Sources in Many States



Each arrow represents a state that is "significantly affecting" air quality in a downwind nonattainment or maintenance area in 2012

In the box above, Wisconsin is both affected by some states and contributes significant pollution to some states

Key to Arrows

- ▶ Linkage of Upwind to Downwind for Ozone
- ▶ Linkage of Upwind to Downwind for Annual $PM_{2.5}$
- ▶ Linkage of Upwind to Downwind for 24 hour $PM_{2.5}$

Emissions Inventory

- The purpose: Develop estimates of air pollutants released to the atmosphere
- These estimates are used:
 - to meet federal reporting requirements and as inputs for air pollution models used to predict the effects of the pollutants
 - Identify largest contributors to pollution
 - When air monitors detect pollutant levels that exceed national standards EPA requires states use the models to determine what levels of emission reductions are necessary to meet the standards
 - Based on the modeling states must develop rules to require the necessary reductions
- EPA enforces these requirements by banning industrial development and withholding highway funds

Emissions inventory may be divided into five major components

(other categories/subcategories may also be useful – much like dividing financial data into different categories)

- Onroad MOBILE sources
- Nonroad MOBILE sources
- Point sources
- Area sources
- Biogenic sources

Onroad MOBILE sources



Nonroad MOBILE sources



Mobile Emissions

- **Criteria Pollutants:** Nitrogen Oxides (NO_x), Volatile Organic Compounds (VOC), Particulate Matter (PM), Sulfur Dioxide (SO₂)
- **Toxic/Hazardous Air Pollutants**
- **Green House Gases**
- **On-Road:** Cars, trucks, buses, etc.
- **Off-Road:** Planes, trains, marine, recreational
- **Emission Inventories (WV DAQ & EPA)**
- **Transportation Conformity (DAQ, DOT & Metropolitan Planning Organizations)**

Transportation-Related Elements of a SIP

- Major transportation-related elements include:
 - On-road mobile source inventory
 - **Motor vehicle emissions budget (MVEB)**
 - **Used for subsequent transportation conformity determinations**
 - **Developed using latest planning assumptions: TDM, MOVES, Inter-Agency Consultation**
 - Transportation control measures (optional)

- Summary of *Raw* Registration Data

Field	Size	Details
County	56 counties	55 WV Counties plus "OUTS"
Vehicle Type	21 types	Registration Class
Body Style	118 styles	BU, PK, 4D, etc.
Make	4,078 manufacturers	Includes Motorcycles, etc.
Model Year	112 different years	Starting in 1900, ending in 2012
Model	5,800 different models	COFFIS, EPR, SILSKI
Series	5,254	350Z, EFI, S10

Note: Data pulled November 2010



Organizing the Data into MOVES

Inputs: Source Type Population

- Filter from 1,878,532 records to 1,540,101 records.
- Final Product for Kanawha County and Statewide Data:

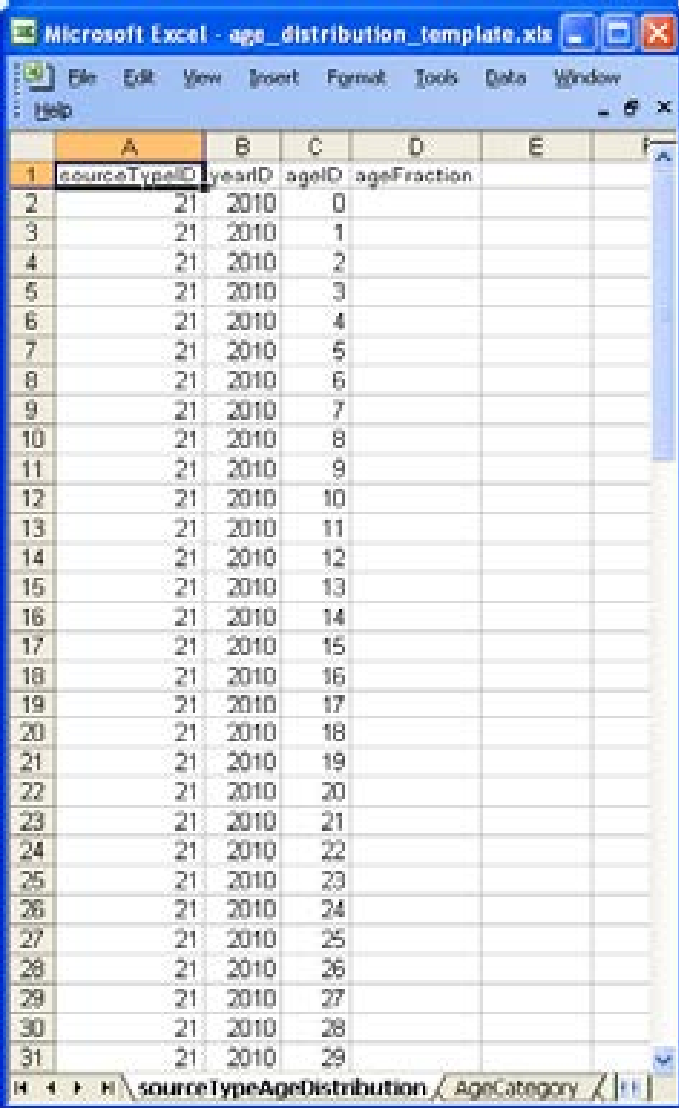
			Kanawha County	Statewide	Kanawha County Population
yearID	sourceTypeID	sourceTypeName	sourceTypePopulation	sourceTypePopulation	Percent of WV
2007	11	Motorcycle	4319	48782	8.85
2007	21	Passenger Car	73044	613888	11.90
2007	31	Passenger Truck	71332	683761	10.43
2007	32	Light Commercial Truck	11884	118381	10.04
2007	41	Intercity Bus	85	364	23.23
2007	42	Transit Bus	46	198	23.23
2007	43	School Bus	194	3731	5.20
2007	51	Refuse Truck	75	659	11.40
2007	52	Single Unit Short-haul Truck	4503	39503	11.40
2007	53	Single Unit Long-haul Truck	514	4506	11.40
2007	54	Motor Home	192	2065	9.30
2007	61	Combination Short-haul Truck	1388	11500	12.07
2007	62	Combination Short-haul Truck	1540	12764	12.07

Green = Actual Data

Black = Default MOVES Data

Orange = Calculated / Hybrid Approach

Source Type Age Distribution



	A	B	C	D	E	F
1	sourceTypeID	yearID	ageID	ageFraction		
2	21	2010	0			
3	21	2010	1			
4	21	2010	2			
5	21	2010	3			
6	21	2010	4			
7	21	2010	5			
8	21	2010	6			
9	21	2010	7			
10	21	2010	8			
11	21	2010	9			
12	21	2010	10			
13	21	2010	11			
14	21	2010	12			
15	21	2010	13			
16	21	2010	14			
17	21	2010	15			
18	21	2010	16			
19	21	2010	17			
20	21	2010	18			
21	21	2010	19			
22	21	2010	20			
23	21	2010	21			
24	21	2010	22			
25	21	2010	23			
26	21	2010	24			
27	21	2010	25			
28	21	2010	26			
29	21	2010	27			
30	21	2010	28			
31	21	2010	29			

- Age Distribution is entered according to MOVES source types and calendar year
 - *AgeFraction* must sum to 1 within these fields
- Age Distribution covers new (0) to 30+ year old vehicles
 - MOVES does not vary age distribution by month

Output Tables

- **MOVESOutput** – Contains the emission results.
- **MOVESActivityoutput** – Contains the distance.
- **MOVESRun** - Information about the run.
- **Emission Rate Output:**
 - Rateperdistance (e.g. grams per mile)
 - Ratepervehicle (e.g. grams per vehicle) starts/idle
 - Rateperprofile (e.g. grams per vehicle) evaporative
- **Diagnostic Tables:**
 - ActivityType, MOVESError, MOVESTablesUsed, MOVESWorkersUsed

Percentage of Charleston NAA Emissions Attributable to Highway Mobile Sources for 2005, 2008, 2018 and 2025

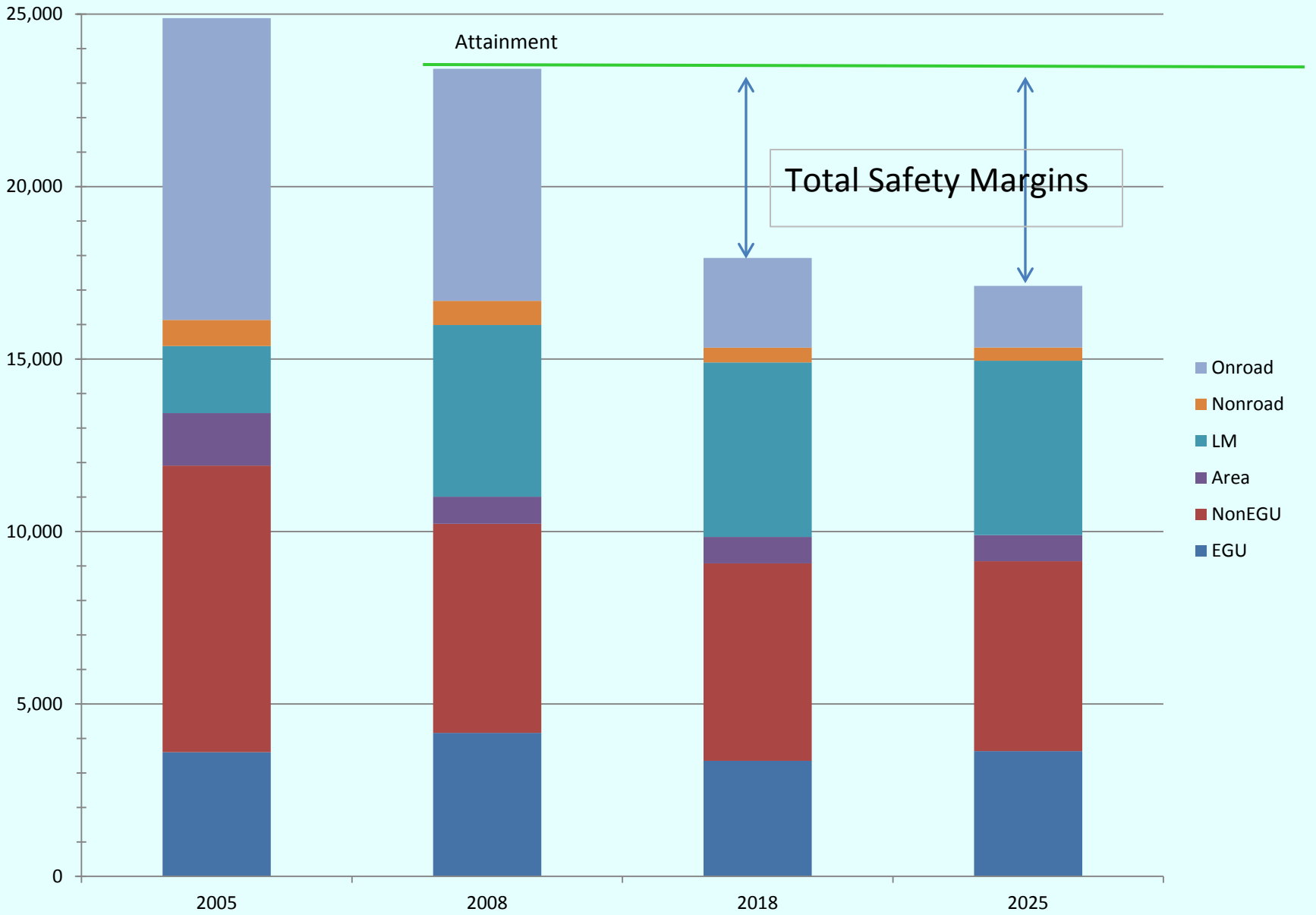
NAA	County	Sector	NO _x				PM _{2.5}				SO ₂			
			2005	2008	2018	2025	2005	2008	2018	2025	2005	2008	2018	2025
Charleston NAA	Kanawaha	Point - EGU	3,602	4,162	3,352	3,635	552	659	213	231	12,851	15,426	4,580	4,967
	Kanawaha	Point - NonEGU	8,309	6,060	5,723	5,503	210	133	126	121	5,488	4,593	4,273	4,063
	Kanawaha	Area	1,520	786	770	759	1,796	1,658	1,625	1,601	1,274	977	904	853
	Kanawaha	LM	1,946	4,979	5,055	5,055	65	168	171	171	99	253	257	257
	Kanawaha	NonRoad	758	700	430	381	99	94	77	72	57	10	2	2
	Kanawaha	OnRoad	8,750	6,729	2,600	1,789	282	214	88	64	173	47	20	19
	Kanawaha	Subtotal	24,884	23,415	17,931	17,121	3,004	2,926	2,299	2,260	19,941	21,307	10,037	10,160
	Kanawha Onroad Percentages		35.16%	28.74%	14.50%	10.45%	9.40%	7.30%	3.83%	2.85%	0.87%	0.22%	0.20%	0.19%
	Putnam	Point - EGU	34,624	13,393	6,835	6,823	4,250	3,700	2,898	2,891	112,426	93,533	13,163	13,208
	Putnam	Point - NonEGU	57	59	49	43	9	10	10	10	0	2	3	3
	Putnam	Area	207	186	179	175	772	608	599	592	123	202	187	177
	Putnam	LM	2,528	2,528	2,567	2,567	14	86	88	88	32	138	141	141
	Putnam	NonRoad	214	197	113	88	21	18	12	10	20	3	0	0
	Putnam	OnRoad	2,026	1,609	657	473	69	54	24	18	41	12	5	5
	Putnam	Subtotal	39,657	17,972	10,401	10,169	5,135	4,477	3,631	3,609	112,641	93,891	13,499	13,534
	Putnam Onroad Percentages		5.11%	8.95%	6.32%	4.65%	1.34%	1.22%	0.66%	0.49%	0.04%	0.01%	0.04%	0.04%
	Charleston NAA	Total	64,541	41,387	28,331	27,291	8,139	7,403	5,929	5,869	132,583	115,198	23,535	23,694
	On Road Total		10,776	8,337	3,258	2,262	351	268	112	82	214	59	25	24
	Charleston NAA Onroad Percentages		16.70%	20.15%	11.50%	8.29%	4.31%	3.62%	1.89%	1.40%	0.16%	0.05%	0.11%	0.10%

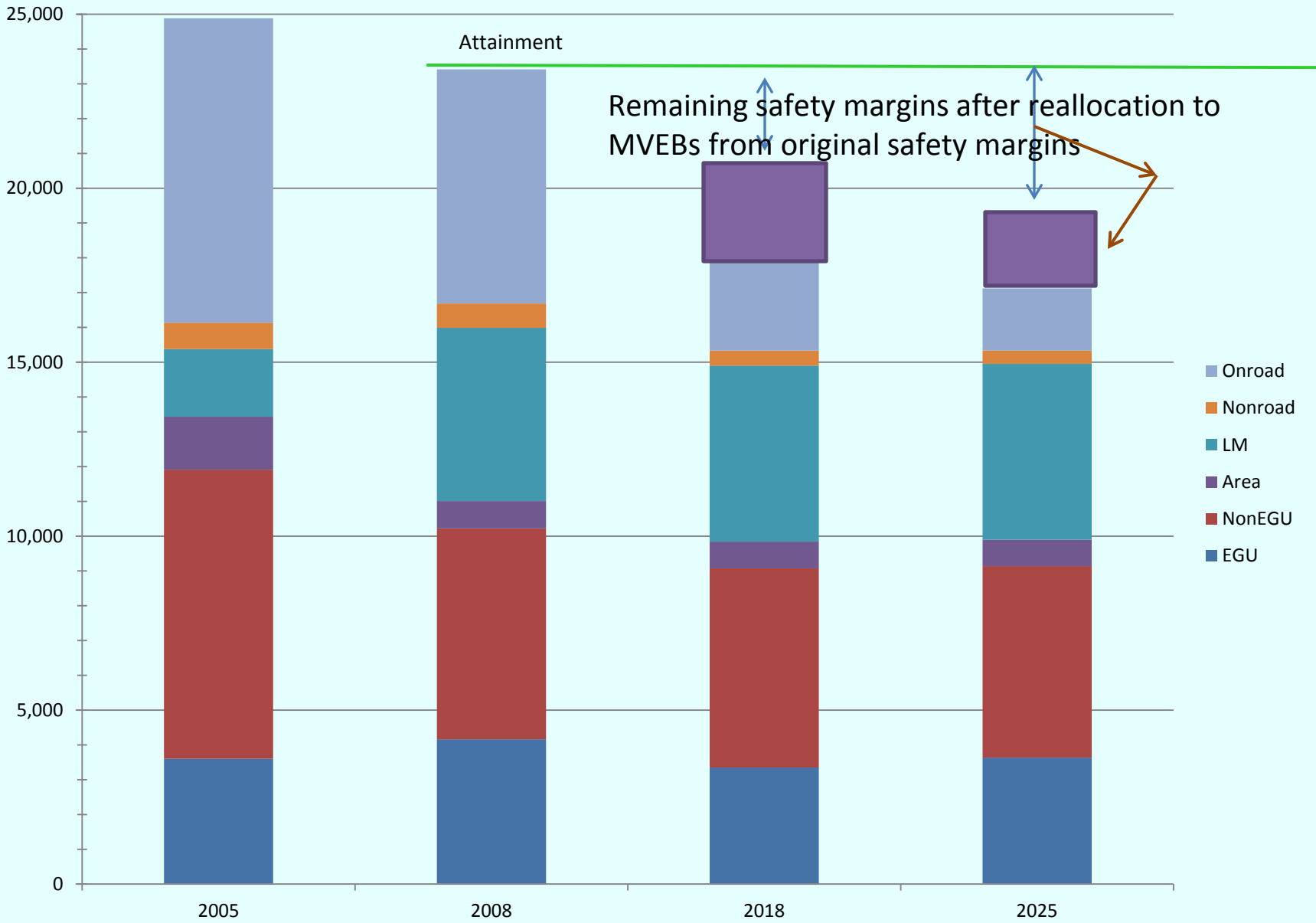
EPA's Rule of thumb for "insignificance" for NO_x ~ 10% in the attainment year & decreasing thereafter

EPA's Rule of thumb for "insignificance" for PM_{2.5} direct has been ~ 5%; but now ~ 3%, in the attainment year & decreasing thereafter

**Table 6: Kanawha County, WV NO_x Emission Inventory Totals for:
2005, 2008, 2018 and 2025 (tons per year)**

Sector	2005 (Base)	2008 Attainment	2018 Interim	2018 Safety Margin	2025 Maintenance	2025 Safety Margin
EGU	3,602	4,162	3,352	810	3,635	527
NonEGU	8,309	6,060	5,723	337	5,503	557
Area	1,520	786	770	16	759	27
LM	1,946	4,979	5,055	-76	5,055	-76
Nonroad	758	700	430	270	381	319
Onroad	8,750	6,729	2,600	4,129	1,789	4,940
TOTAL	24,884	23,415	17,931	5,485	17,121	6,294





Point sources



Permitting Pathways

- Three Permitting Pathways
 - Minor source
 - Major source in a NAAQS Attainment Area
 - Major source in a NAAQS Non-Attainment Area
- National Ambient Air Quality Standards
 - Health-based emission standards set by EPA
- Pollutant-specific
- Often a combination of above
- Info Needed: What, where and how much?
 - Facility type, location, potential air emissions



Major Source Thresholds: New Sources

New Major Source Applicability Thresholds (tons/year)

Pollutant	Attainment Areas		Non-Attainment Areas
	28 Sources	All Others	All Sources
<i>Criteria</i>	<i>100</i>	<i>250</i>	<i>100 TPY</i>
<i>GHGs (CO₂e)</i>	<i>100,000</i>	<i>100,000</i>	<i>n/a</i>

- Criteria pollutants are CO, Lead, NO_x, Particulate Matter (PM_{2.5}, PM₁₀ and PM), VOCs and SO₂
- Emission levels as limited in permit (i.e., include emission controls)
- “28 Sources” includes Chemical Process Plants (e.g. SIC Code Grouping 28)



Minor Source Permitting

- Administrated under WV Rule 45CSR13
 - Differs state-by-state
- Not necessarily any presumed emission control requirements
- Flexible in permitting requirements
- Only include GHG requirements if needed to limit below major source levels
- Usually less EPA review/involvement
- 90-day timeline inclusive of public notice requirements.



Major Sources in Attainment Areas

- Administered under WV Rule 45CSR14
 - Referred to as Prevention of Significant Deterioration (PSD)
 - Based on federal requirements
 - All states similar
 - WV Advantage: “SIP-approved”
- Requires Best Available Control Technology (BACT)
 - An emission limit based on a case-by-case determination taking into account energy, environmental and economic impacts
- Requires complex computer modeling to determine compliance with NAAQS/Increments
- EPA oversight role – review/comment
- 180-day statutory timeline inclusive of public notice requirements



Major Sources in Non-Attainment Areas

- Administered under WV Rule 45CSR19
 - Based on federal requirements
 - All states similar
 - WV Advantage: “SIP-approved”
- Requires Lowest Achievable Emission Rate (LAER)
 - Most stringent emission limit achieved in practice
- Requires finding emission offsets
- EPA oversight role – review/comment
- 180-day timeline inclusive of public notice requirements



Components of All Permit Reviews

- Review Compliance with State-Specific Rules
 - 45CSR2: PM from Indirect Heat Exchangers (e.g., Boilers)
 - 45CSR7: PM from Manufacturing Processes
 - 45CSR10: SO₂ From Indirect Heat Exchangers/Manufacturing Processes
 - 45CSR21: Targets VOCs in certain counties (RACT)
 - 45CSR27: Targets Toxic Air Pollutants
 - No Rule Targeting NO_x or HAP Emissions
- Review Compliance with Federal Standards:
 - New Source Performance Standards (NSPS)
 - 40 CFR 60 (45CSR16)
 - National Emission Standards for Hazardous Air Pollutants (NESHAP)
 - 40 CFR 61 (45CSR15)
 - Maximum Achievable Control Standards (MACT)
 - 40 CFR 63 (45CSR34)
- Integrate substantive requirements into permit



Pre-Permit Construction Activities

- Applicant assumes liability
- Minor Source Permitting (§45-13-5.1)
 - Landscaping/clearing, demolish existing structures, utility work, construct foundations and non-emission source buildings, order and store emission units on-site
- Major Source Permitting (EPA Guidance)
 - Landscaping/clearing, demolish existing structures, order and store emission units on-site
 - May not construct anything of a permanent nature including pipe-work, foundations, and office buildings
- The more stringent of the two applies where dual applicability exists



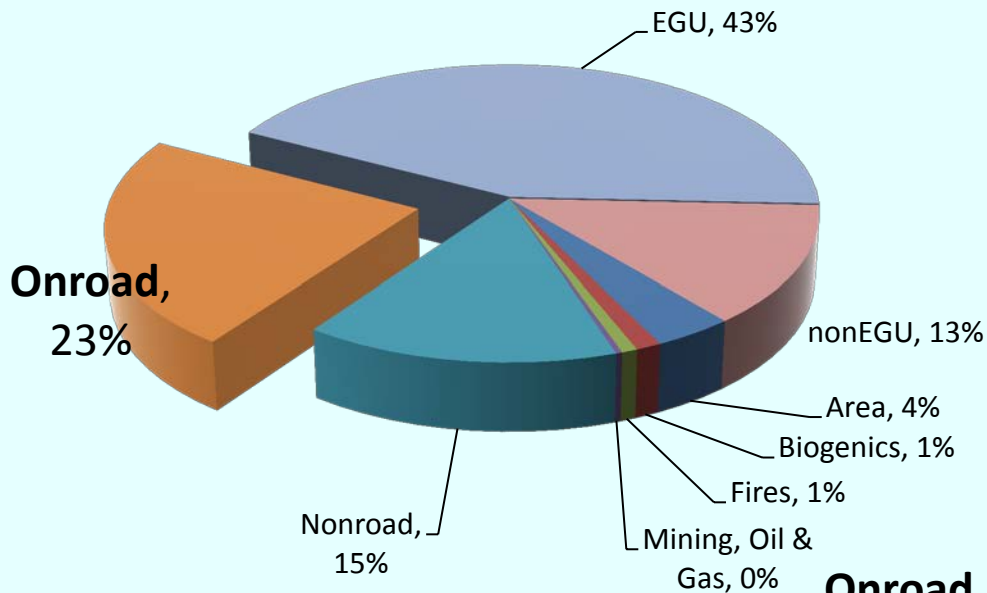
Area sources



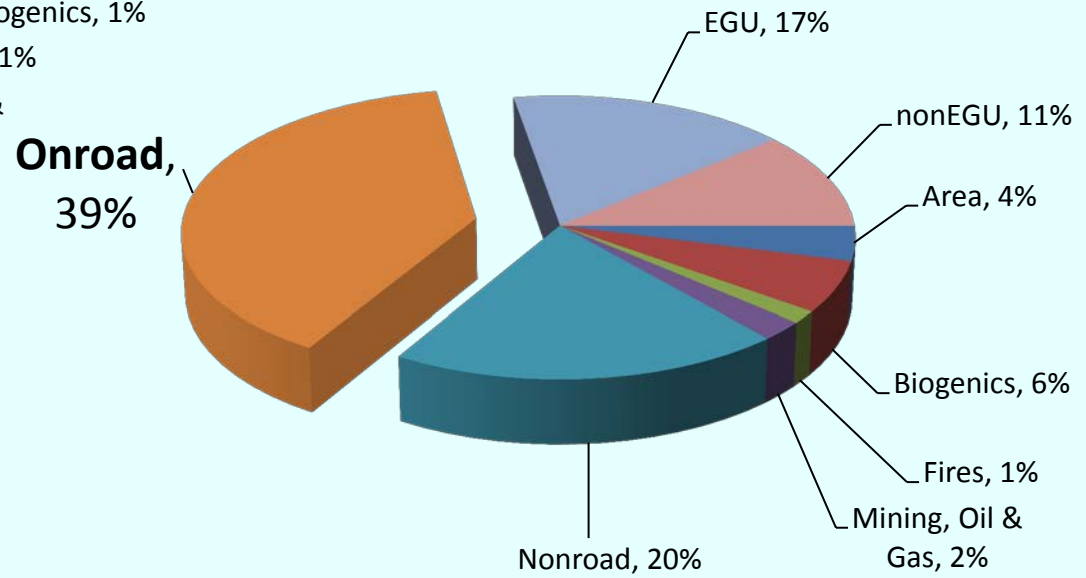
Biogenic Sources



2008 Nitrogen Oxides (NOx) WV Emissions Contributions by Sector

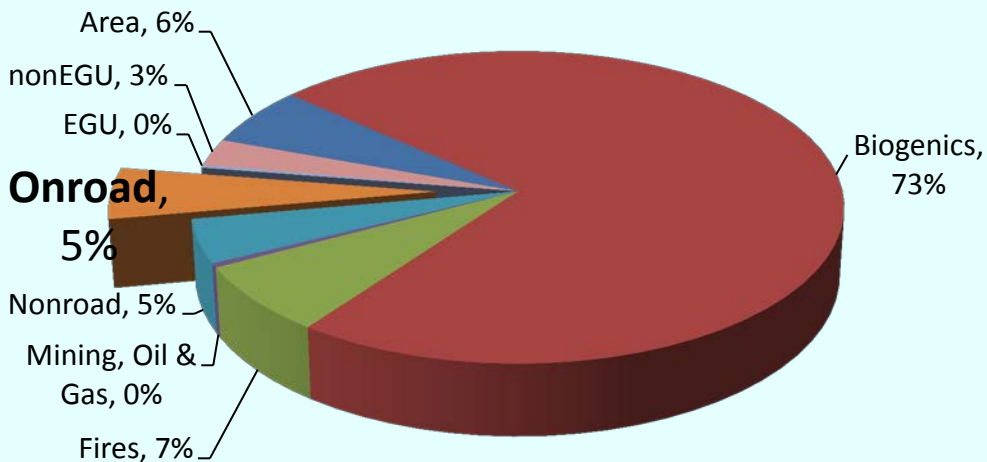


2008 Nitrogen Oxides (NOx) US Emissions Contributions by Sector



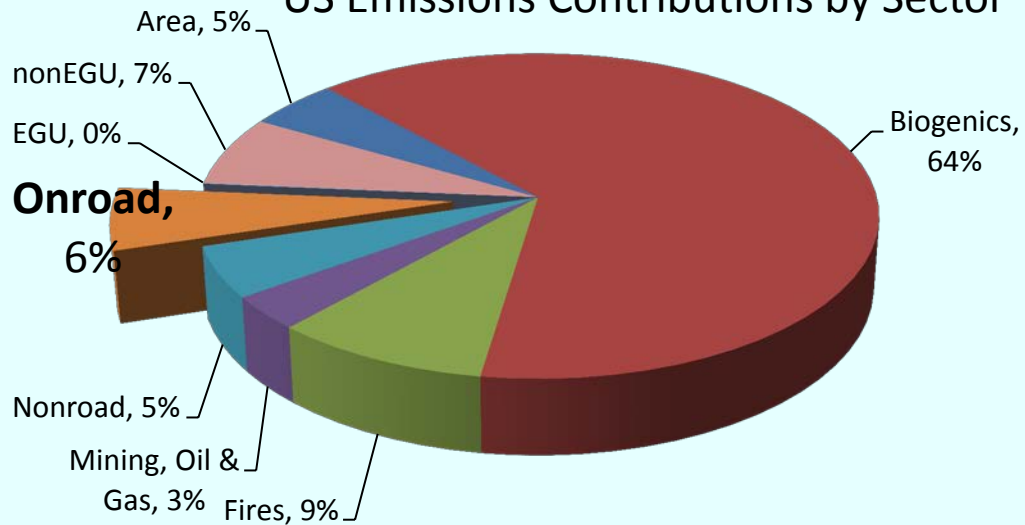
2008 Volatile Organic Compounds (VOCs)

WV Emissions Contributions by Sector



2008 Volatile Organic Compounds (VOCs)

US Emissions Contributions by Sector



Transportation Conformity

- The 1990 Clean Air Act Amendments (CAAA) prohibit any Federal agency from supporting activities that do not conform to the applicable air quality State Implementation Plan (SIP).
- Specifically, the CAAA prohibits Metropolitan Planning Organizations (MPOs) from approving transportation plans, projects or programs that do not conform to a SIP.

Conformity Linked to Funding

“Under the metropolitan planning requirements of Titles 23 and 49 U.S.C., projects cannot be:

- approved,
- funded,
- advanced through the planning process, or
- implemented

unless projects are in a conforming plan and TIP”



Conformity to an implementation plan means—

- Conformity to an implementation plan's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards and achieving expeditious attainment of such standards; and
- that such activities will not—
 - Cause or contribute to any new violation of any new standard in any area;
 - Increase the frequency or severity of any existing violation of any standard in any area; or
 - Delay timely attainment of any standard or any required interim reductions or other milestones in any area.
 - The determination of conformity shall be based on the most recent estimates of emissions, and such estimates shall be determined from the most recent population, employment, travel and congestion estimates as determined by the metropolitan planning organization or other agency authorized to make such estimates.

Conformity Rule

- EPA: First transportation conformity rule - NOV 1993, codified at 40 CFR 93, subpart A; many revisions over the next decade & beyond, some prompted by court decisions
- States are required to adopt three specific SIP elements:
 - Consultation procedures [40 CFR §93.105]; and
 - Procedures for determining regional transportation-related emissions [40 CFR §93.122(a)(4)(ii)]; and
 - Enforceability of design concept and scope and project-level mitigation and control measures [93.125(c)]
- EPA published a direct final approval of West Virginia's most recent transportation conformity SIP in the May 2, 2008 *Federal Register* (73 FR 24175).
- Includes a series of MOUs detailing the responsibilities for the many entities involved in the evaluation & approval process. These include EPA, FHWA, FTA, state DOTs, state air agencies and various MPOs

EPA-APPROVED TENNESSEE NON-REGULATORY PROVISIONS

Name of nonregulatory SIP provision	Applicable geographic or nonattainment area	State effective date	EPA approval date	Explanation
110(a)(1) and (2) Infrastructure Requirements for the 1997 8-Hour Ozone National Ambient Air Quality Standards—Elements 110(a)(1) and (2)(C) and (J).	Tennessee	12/14/2007	3/14/2012 [Insert citation of publication].	

Transportation Conformity Regulations as of April 2012

<http://www.epa.gov/otaq/stateresources/transconf/regs/420b12013.pdf>

Transportation and Climate Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency

NOTICE

This document includes the current transportation conformity rule that reflects all transportation conformity rulemakings promulgated by EPA as of April 2012, including the Restructuring Amendments final rulemaking (77 FR 14979) and the MOVES Regional Grace Period Extension final rulemaking (77 FR 11394).

EPA intends to update this reference document upon publication of any final transportation conformity rules.

This document is for informational purposes only, and you should not use the page numbers of this document for citation purposes. This document does not supersede existing conformity regulations that currently apply for conformity determinations.

[FR Doc. 2012-5764 Filed 3-13-12; 8:45 am]
BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 93

[EPA-HQ-OAR-2009-0128; FRL-9637-3]

RIN 2060-AP57

Transportation Conformity Rule Restructuring Amendments

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is amending the transportation conformity rule to finalize provisions that were proposed on August 13, 2010. These amendments restructure several sections of the transportation conformity rule so that they apply to any new or revised National Ambient Air Quality Standards. EPA is also finalizing several clarifications to improve implementation of the rule. EPA is not taking a final action at this time on the proposal that areas analyze a near-term analysis year when using the budget test.

The Clean Air Act requires federally supported transportation plans, transportation improvement programs, and projects to be consistent with (conform to) the purpose of the state air

quality implementation plan. EPA consulted with the U.S. Department of Transportation and they concur in the development of this final rule.

DATES: This final rule is effective on April 13, 2012.

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2009-0128. All documents in the docket are listed in the www.regulations.gov index. Although listed in the index, some information may not be publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in www.regulations.gov or in hard copy at the Air and Radiation Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave. NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744 and the telephone number for the Air and Radiation Docket is (202) 566-1742.

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fax number: (734) 214-4052; or Laura Berry, Transportation and Regional Programs Division, Environmental Protection Agency, 2000 Traverwood Drive, Ann Arbor, MI 48105, email address: berry.laura@epa.gov, telephone number: (734) 214-4858, fax number: (734) 214-4052.

SUPPLEMENTARY INFORMATION: The contents of this preamble are listed in the following outline:

- I. General Information
- II. Background on the Transportation Conformity Rule
- III. Restructure of Section 93.109—Tests of Conformity for Transportation Plans, TIPS, and Projects—and Changes to Related Sections
- IV. Additional Option for Areas That Qualify for EPA's Clean Data Regulations or Policies
- V. Restructure of the Baseline Year Test for Existing NAAQS and Baseline Year Test for Future NAAQS
- VI. How do these amendments affect conformity SIPs?
- VII. Statutory and Executive Order Reviews

I. General Information

A. Does this action apply to me?

Entities potentially regulated by the transportation conformity rule are those that adopt, approve, or fund transportation plans, programs, or projects under title 23 U.S.C. or title 49 U.S.C. Chapter 53. Regulated categories and entities affected by today's action include:

Category	Examples of regulated entities
Local government	Local transportation and air quality agencies, including metropolitan planning organizations (MPOs).
State government	State transportation and air quality agencies.
Federal government	Department of Transportation (Federal Highway Administration (FHWA) and Federal Transit Administration (FTA)).

This table is not intended to be exhaustive, but rather provide for readers regarding entities affected by this final rule. The table lists the types of entities of which we are aware that potentially could be regulated by the transportation

<http://www.gpo.gov/fdsys/pkg/FR-2012-03-14/pdf/2012-6207.pdf>

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