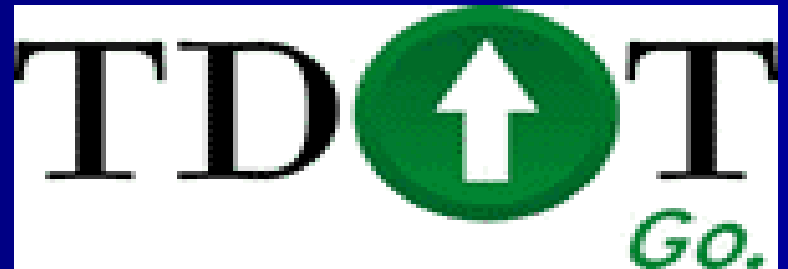


Cleaner Transportation in Tennessee

Alan Jones, Manager
Environmental Policy Office
Tennessee Dept. of Transportation

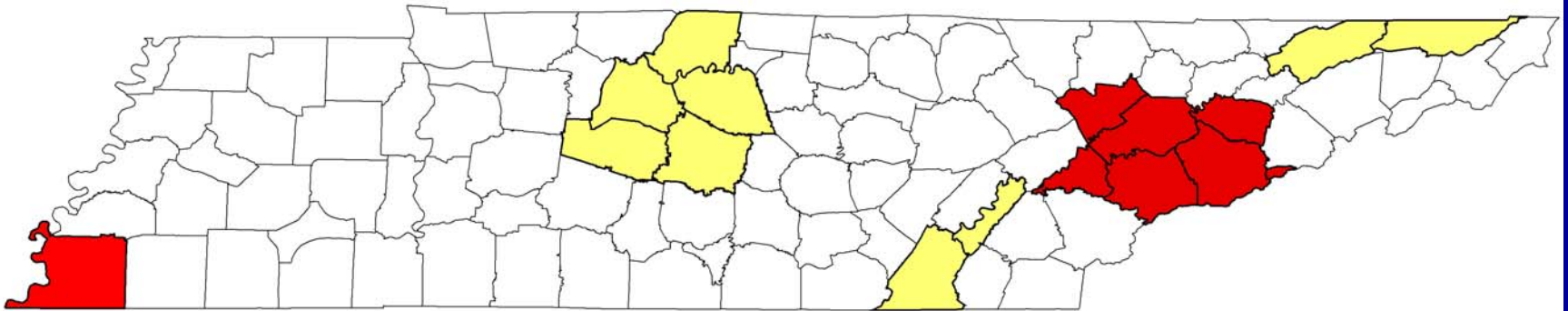


18 Nonattainment Counties in Tennessee

- 17 ozone nonattainment* or maintenance counties
 - 9 counties in ozone Early Action Compacts
- 6 East Tennessee counties nonattainment* for PM 2.5
 - Knoxville and Chattanooga regions
- Some counties nonattainment for both ozone and PM 2.5

* Totals include partial county designations

Ozone Nonattainment Areas



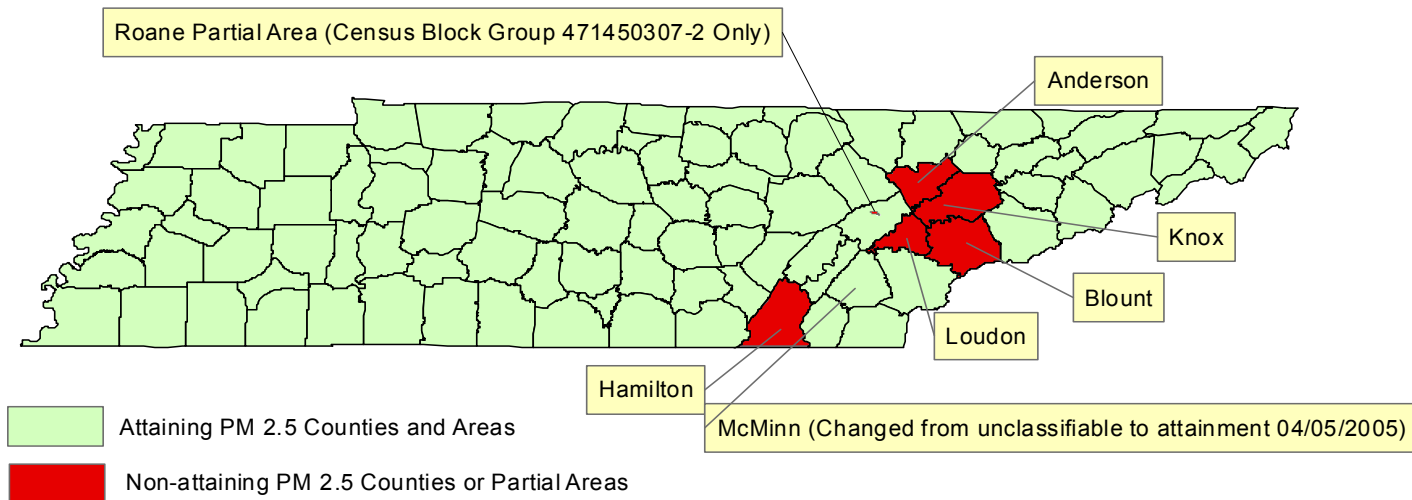
- nonattainment but with deferred effective date – Yellow (EAC areas)
- nonattainment with no deferral – Red
- attainment - White

Source: Tennessee Dept. of Environment and Conservation



PM 2.5 Nonattainment Areas

Tennessee PM 2.5 Designations By EPA
Effective April 5, 2005



Diesel Emissions and the Legacy Fleet

- 11 million* existing on-road/non-road diesel engines
 - EPA emission standards do not apply
 - Engine life up to 30 years
 - Many diesel engines manufactured before 2007 will still be on the road in 2036
- Diesel emissions affect public health
 - Reduce lung function
 - Aggravate asthma and respiratory diseases
 - May cause premature death
 - Increase risk of cancer

*U.S. Environmental Protection Agency

Diesel Exhaust Emissions in Tennessee

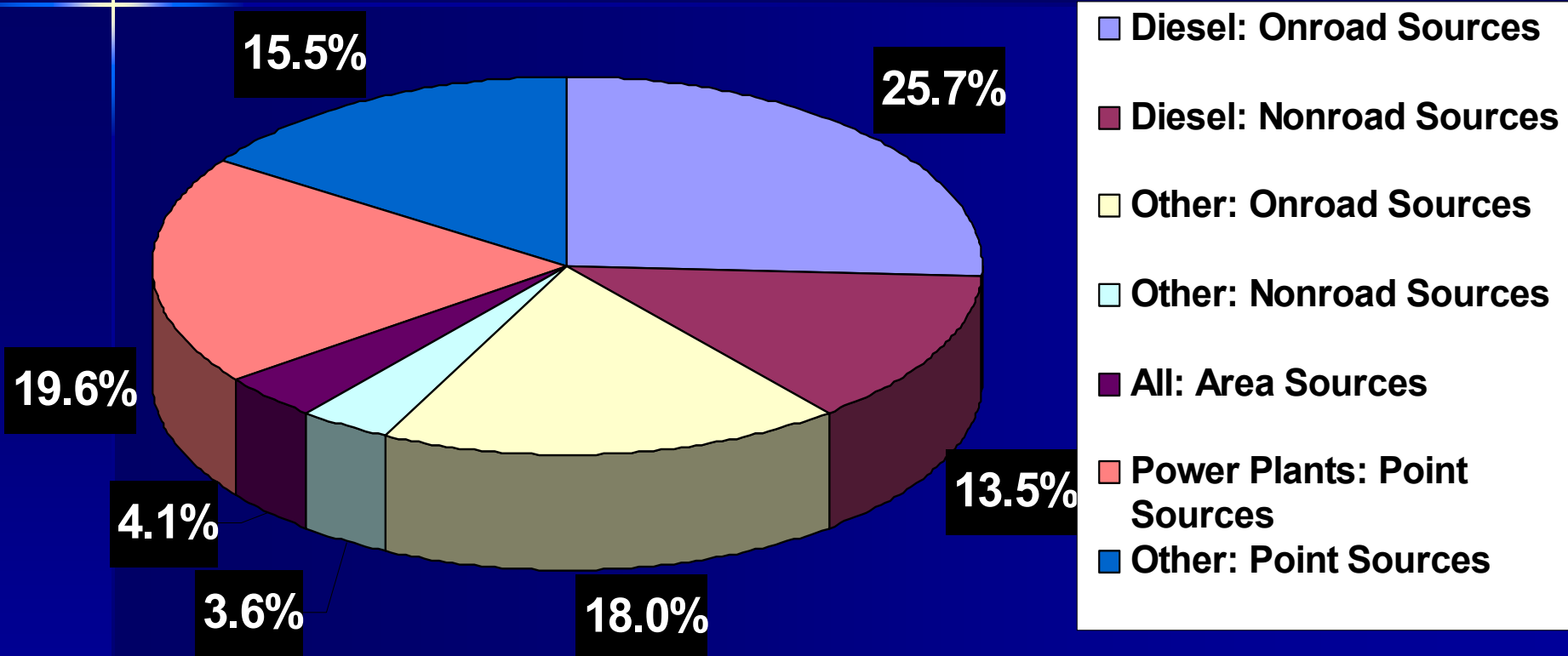
Pollutant	Tons/Year	% of Statewide Emissions
NOx	203,000	39%
PM2.5	6,600	7.5%
SO2	8,700	2.2%

Source: Tennessee 2005 Draft Emissions Inventory

2005 NOx Emissions from Onroad, Nonroad, Area and Point Sources

Percent by Category

(Emissions Total 518,000 tons/year)



Growth in VMT in Tennessee

- From 1980 to 2000, vehicle miles traveled increased 100% while lane miles of highway increased only 8%
- Travel time between cities expected to increase 15% to 33%

Freight Movement in Tennessee

- Trucks carry about 80% of manufactured freight
- Tennessee 6th in nation and 1st in Southeast for truck cargo
- Trucks only means to supply 85% of state's communities
- More than 70% increase expected in total freight (all modes) over next 25 years
- FHWA forecasts huge growth in truck freight
 - 370 million tons in 1998 to
 - 655 million tons in 2020

*Source: Tennessee's 2005 Long Range Transportation Plan
www.tdot.state.tn.us/plango/home.htm*

TDOT's Cleaner Transportation Initiative

- Providing mobility, protecting public safety, safeguarding the environment
- TDOT is committed to help reduce mobile source emissions
- Multiple initiatives
 - Cleaner fuels and cleaner engines
 - More efficient use of existing system
 - Strengthen intermodal connections
 - Transportation alternatives
 - Employer incentive programs
 - Public education and outreach

Congestion Mitigation and Air Quality Improvement Program (CMAQ)

- Primary purpose improving air quality
- Transportation projects that reduce mobile source emissions in nonattainment and maintenance areas
- SAFETEA-LU made diesel retrofits and other cost-effective emission reduction projects a priority for the CMAQ program

Project Diversity in Each Metropolitan Area

- TDOT and MPOs will fund mix of CMAQ projects in each nonattainment area
- Continue traditional projects, such as transit and signal synchronization
- Add new cost-effective projects, such as diesel retrofits
- Set of projects may lead to synergistic benefits at regional and statewide levels

Short-term and Long-term Emission Reductions

- Short-term—cost-effective emission reductions
 - Cleaner fuels (biofuels)
 - Cleaner engines (retrofits)
- Long-term—improve performance of transportation system
 - Travel demand management
 - Transit and ridesharing programs
 - Driver Information (ITS)
 - Signal synchronization

TDOT CMAQ Projects

- Transportation Alternatives Community Assistance
- Commuter vans for new vanpools
- On-line rideshare matching program
- Free transit rides on air quality action days
- Bicycle racks/lockers at state-owned buildings
- Clean Transportation Public Education Campaign
- Biofuels retail infrastructure
- Intelligent Transportation Systems (ITS)
- Hybrid-electric Escapes for TDOT fleet
- Clean Transportation Innovations Incentives Fund (Diesel retrofits and idling reduction technology)

Clean Transportation Innovations Incentives Fund

- \$4.8 MM (FY 2005-2007) in CMAQ funds
- Partner with owners of heavy-duty diesels to reduce emissions from existing fleet engines
 - Encourage installation of retrofits / aftertreatment devices
 - Encourage idling reduction and cleaner fuels (biodiesel)

Clean Transportation Innovations Incentives Fund

- Pilot projects for 2006-2007
 - Retrofit road construction equipment
 - Retrofit switchyard and short haul locomotives
 - Retrofit public fleets
 - Transit
 - Waste hauling
 - City/county public works
 - TDOT



Executive Order #33

- Governor Bredesen signed February 2006
 - Directs state agencies to use E85 and B20 in state vehicles whenever possible
 - Established the Governor's Interagency Working Group on Alternative Fuels
 - Working Group to develop recommendations to make the state a leader in the Southeast in the production, distribution and use of biofuels

Executive Order #33 continued

- Governor Bredesen asked General Assembly for an extra \$4 million to support biofuels
 - Feedstock processing
 - Retail infrastructure
 - Public education and outreach



Biofuels Retail Infrastructure Project

- TDOT working with retail fuel stations to set up B20 and E85 refueling pumps across the state
- Establish statewide network of publicly accessible refueling locations
 - Focus on interstate corridors
- Publicly accessible fuel stations will allow more citizens and private and government fleets to use biofuels

Biofuels Retail Infrastructure Project

- Help retail stations convert or install biofuels storage tanks and fuel pumps
- 80/20 cost-sharing
 - 80% funding from Congestion Mitigation and Air Quality Improvement (CMAQ) Program
 - 20% nonfederal match from fuel station

\$1.5 million for biofuels infrastructure

- Governor Bredesen providing \$1.5 million to TDOT for biofuels retail infrastructure
- Goal to establish 40-50 more biofuel pumps along interstate corridors
- At least one biodiesel pump (B20) and one ethanol pump (E85) in at least 27 Tennessee counties

For More Information

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