



## Air Quality Snapshot Preliminary Findings

Transportation Committee  
Friday, November 14, 2008

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### Overview – Snapshot Contents

- I. Introduction
- II. Air Pollution Sources/Effects
- III. Our Region's Air Quality
- IV. Current Regulatory Actions
- V. Current Voluntary/Additional Efforts
- VI. Proposed Strategies



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### Overview – Snapshot Contents

- Air quality – indicator for *GO TO 2040*
- Northeastern Illinois – nonattainment for the Clean Air Act, air pollution exceeds healthy limits
- Clean Air Act – 6 criteria air pollutants
  - Ozone (O<sub>3</sub>)
  - Particulate Matter (PM<sub>2.5</sub>)



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## Overview – Snapshot Contents

- National Ambient Air Quality Standards (NAAQS)
  - Ozone
    - Measured on 8-hour average
    - 3-year average of 4<sup>th</sup> highest daily max  $\leq 0.075$  ppm
  - PM<sub>2.5</sub>
    - annual mean  $\leq 15 \mu\text{g}/\text{m}^3$
    - daily average (24-hour)  $\leq 35 \mu\text{g}/\text{m}^3$
- Measures exceedances – violations

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## Ozone Monitors in the Region (2007)




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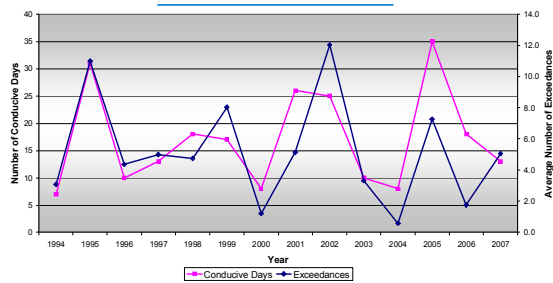
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## Ozone Exceedances vs Conducive Days



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## Air Quality Index

Ozone AQI			
Color	Category	AQI Value	8-hour (ppm)
Green	Good	0-50	0.000-0.059
Yellow	Moderate	51-100	0.060-0.075
Orange	Unhealthy for Sensitive Groups	101-150	0.076-0.095
Red	Unhealthy	151-200	0.096-0.115
Purple	Very Unhealthy	201-300	0.116-0.374
Dark Red	Hazardous	301-500	0.375 +

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## PM Monitors in the Region (2007)




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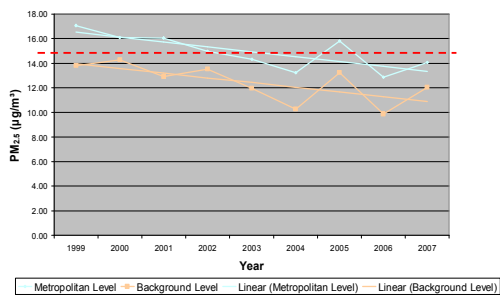
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## Annual Average PM<sub>2.5</sub> Across All Regional Monitors



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## Source Categories

- **Point** – large, stationary emitters
  - > 25 tons/year
  - Power plants, chemical producers, manufacturing plants
- **Area** – small, stationary emitters
  - < 25 tons/year
  - Gas stations, dry cleaners, motor vehicle refinishers
- **On-Road**
  - Motor vehicles: cars, trucks, buses
- **Off-Road**
  - Gas-powered lawn and farm equipment, construction equipment, boats, planes, trains



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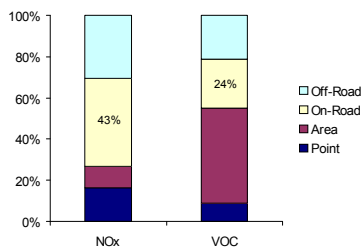
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## Annual Emission Contributions by Source Category (2005)



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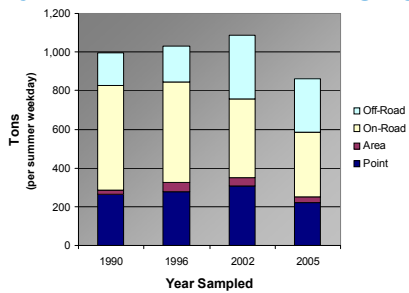
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## Regional NOx by Emission Source Category



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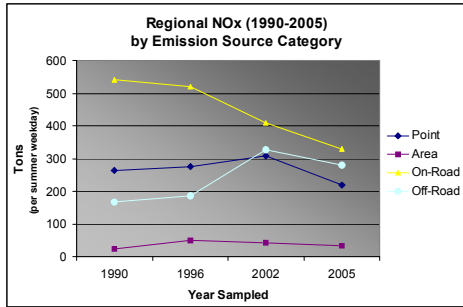
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## Regional NOx Trends



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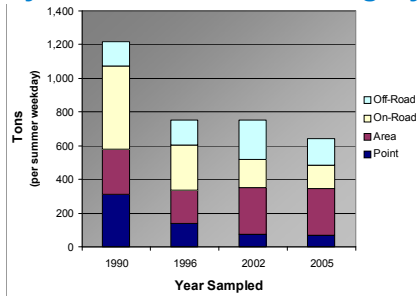
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## Regional VOC by Emission Source Category



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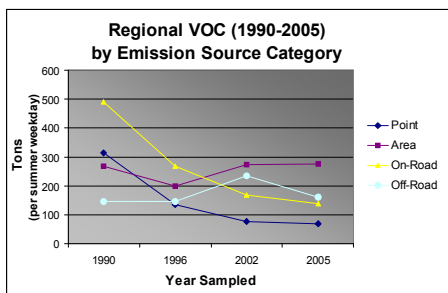
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## Regional VOC Trends



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## Preliminary Findings

- Our actions have air quality consequences
- Ozone
  - Complex
  - Weather plays a vital role
  - May use AQI
- PM<sub>2.5</sub>
  - Annual data shows downward trend
- Sources
  - Point, on-road sources showing downward trend
  - Area, off-road sources not changing or increasing

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## Next Steps

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## Next Steps

- Current Regulatory Actions
  - Clean Air Act
  - Federal Energy Policy
  - SIPs, conformity
  - Permitting, I/M programs
- Current Voluntary Actions
  - Clean Air Counts, etc.
- Proposed Strategies
  - Looking at other MPOs, agencies
  - Look closer at area, off-road sources

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## Questions?

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