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

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$_3$)
  - Particulate Matter (PM$_{2.5}$)
Overview – Snapshot Contents

• National Ambient Air Quality Standards (NAAQS)
  – Ozone
    • Measured on 8-hour average
    • 3-year average of 4th highest daily max ≤ 0.075 ppm
  – \(\text{PM}_{2.5}\)
    • Annual mean ≤ 15 \(\mu\)g/m³
    • Daily average (24-hour) ≤ 35 \(\mu\)g/m³
• Measures exceedances – violations

Ozone Monitors in the Region (2007)

Ozone Exceedances vs Conducive Days
### Air Quality Index

<table>
<thead>
<tr>
<th>Color</th>
<th>Category</th>
<th>AQI Value</th>
<th>8-hour (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Good</td>
<td>0-50</td>
<td>0.000-0.059</td>
</tr>
<tr>
<td>Yellow</td>
<td>Moderate</td>
<td>51-100</td>
<td>0.060-0.075</td>
</tr>
<tr>
<td>Red</td>
<td>Unhealthy for Sensitive Groups</td>
<td>101-150</td>
<td>0.076-0.095</td>
</tr>
<tr>
<td>Maroon</td>
<td>Unhealthy</td>
<td>151-200</td>
<td>0.096-0.115</td>
</tr>
<tr>
<td>Dark Purple</td>
<td>Very Unhealthy</td>
<td>201-300</td>
<td>0.116-0.374</td>
</tr>
<tr>
<td>Black</td>
<td>Hazardous</td>
<td>301-500</td>
<td>0.375 +</td>
</tr>
</tbody>
</table>

**PM Monitors in the Region (2007)**

**Annual Average PM$_{2.5}$ Across All Regional Monitors**
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 refinishing
- **On-Road**
  - Motor vehicles: cars, trucks, buses
- **Off-Road**
  - Gas-powered lawn and farm equipment, construction equipment, boats, planes, trains

Annual Emission Contributions by Source Category (2005)

Regional NOx by Emission Source Category
Regional NOx Trends

Regional NOx (1990-2005) by Emission Source Category

Year Sampled

Regional VOC by Emission Source Category

Year Sampled

Regional VOC Trends

Regional VOC (1990-2005) by Emission Source Category

Year Sampled
**Preliminary Findings**

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

**Next Steps**

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- 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
Questions?

Kristin Heery  
kheery@cmap.illinois.gov  
(312) 386-8802

Ross Patronsy  
rpatronsy@cmap.illinois.gov  
(312) 386-8796