2013 OZONE SEASON

Metro-East Community Air Forum
October 18, 2013
Oxygen in the air

hydrocarbon emissions + nitrogen oxide emissions = smog

strong sunlight

ozone
Ozone Data Sharing Project

- Ozone Season - April 1 to October 31
- East-West Gateway acts as a clearinghouse for ozone data
  - 10 monitors in the non-attainment area
- Quality assurance screening
- Prepare reports
Figure 1
St. Louis 2008 8-Hour Ozone Standard Non-Attainment Area
Monitor Network

East-West Gateway
Council of Governments

July 2012
2008 Ozone Standard

- 75 parts per billion (ppb)
- Exceedance is when an 8-hour average of values is calculated to be > 75 ppb on any given day
- Violation is when a 3-year average of the 4th highest annual average is calculated to be > 75 ppb
2013 Ozone Season Vs. 2012

2013
• 7 ozone days
• 15 exceedances

2012
• 40 ozone days
• 170 exceedances
1999-2013 Exceedances
2008 8-Hour Ozone Standard

Years

Exceedances
0 50 100 150 200 250 300 350 400

Total Exceedances
282 259 195 170

5 Yr Running Average
378 259 195 170
### Summer Weather Facts

<table>
<thead>
<tr>
<th>Days with Temperatures</th>
<th>Year</th>
<th>Average Number of Days per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2012</td>
<td>2013</td>
</tr>
<tr>
<td>90° or greater</td>
<td>60</td>
<td>37</td>
</tr>
<tr>
<td>100° or greater</td>
<td>21</td>
<td>2</td>
</tr>
</tbody>
</table>
Compliance with Ozone Standard

- Based on 2011-2013 monitor data
- 1997 Standard – All monitors
- 2008 Standard – Pacific and East St. Louis monitors only
What Happens Next?

• Moderate to Marginal
• Attainment in 2015
• Implementation guidance
• Data verification
Mobile Sources

Projected Vehicle Emissions

US tons per day

0 20 40 60 80 100

2015 2025 2030

Years

NOx

VOC
Daily Vehicle Miles Traveled (VMT)
St. Louis Region 1982 - 2011

Year

Miles in millions
0 20 40 60 80

- All Roads
For Additional Information

- On-line Air Quality Resource Center
  www.ewgateway.org/environment/aq/aq.htm

July 2013 AQI Calendar
Then and Now

October 28, 1938 looking east along
Pine from 200 block of N. Tucker
St. Louis Post-Dispatch

October 16, 2013 looking east from
SSM St. Mary’s Health Center
MDNR Visual Air Pollution Camera