

# 2017 OZONE SEASON

St. Louis Area  
Monitoring Agencies  
May 23, 2018



**EAST-WEST GATEWAY**  
Council of Governments

Creating Solutions Across Jurisdictional Boundaries

# East-West Gateway Council of Governments

- Voluntary association of local governments in St. Louis (MO-IL) region. It is a forum for local governments to discuss regional issues and decide how best to use resources to meet common needs.
- Lead transportation and transportation-related air quality planning agency for the region. Work with Missouri and Illinois on air quality issues.



# Ozone Data Sharing Project

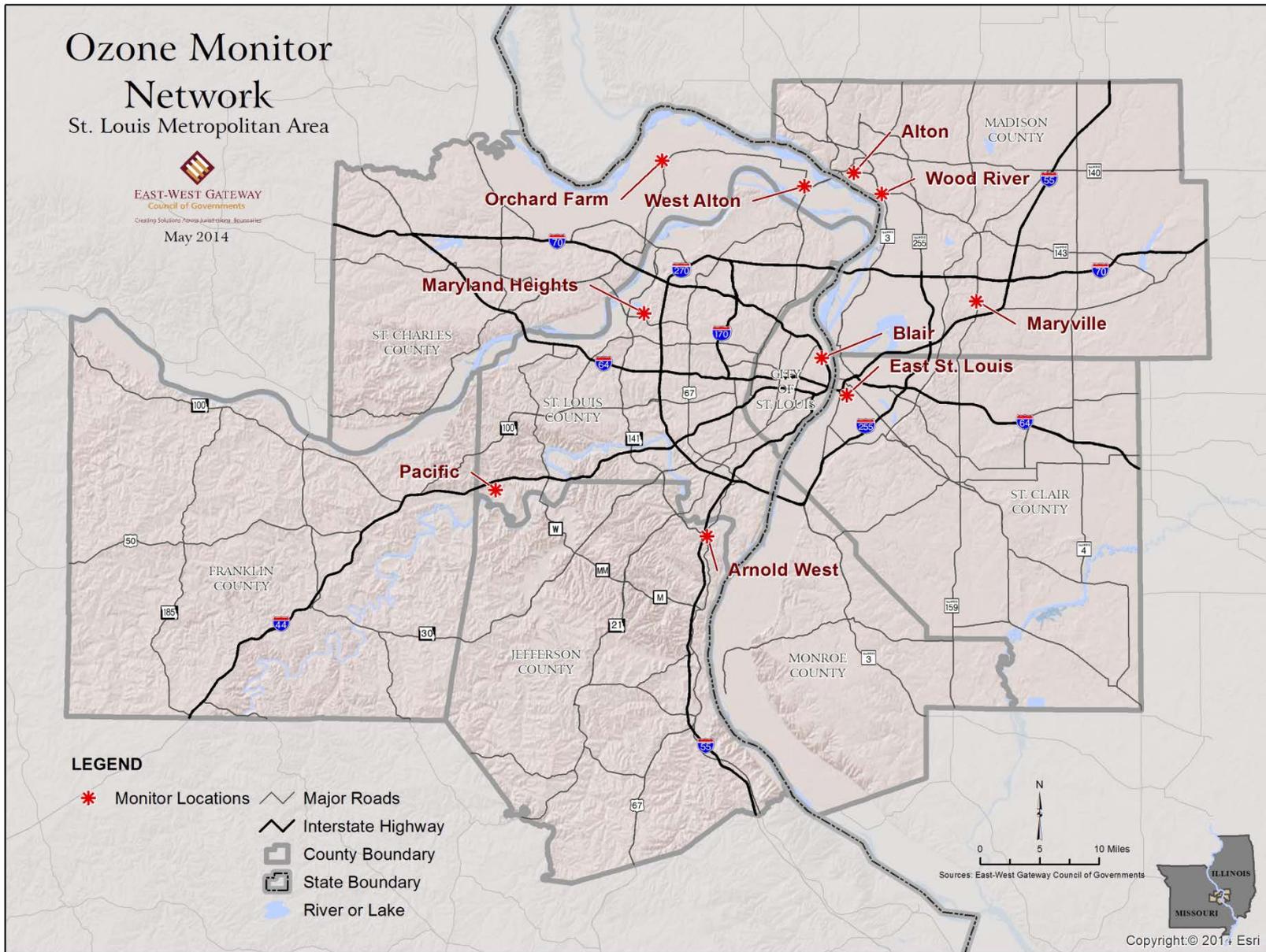
- Covers the ozone season
- East-West Gateway acts as a clearinghouse for 1-hour ozone data and 8-hour ozone averages
- Initial quality assurance screening
- Prepare weekly and monthly reports



# Ozone Monitor Network

## St. Louis Metropolitan Area

  
**EAST-WEST GATEWAY**  
 Council of Governments  
 Creating Solutions For our Jurisdictions. Boundaries:  
 May 2014



### LEGEND

-  Monitor Locations
-  Major Roads
-  Interstate Highway
-  County Boundary
-  State Boundary
-  River or Lake

0 5 10 Miles  
 Sources: East-West Gateway Council of Governments



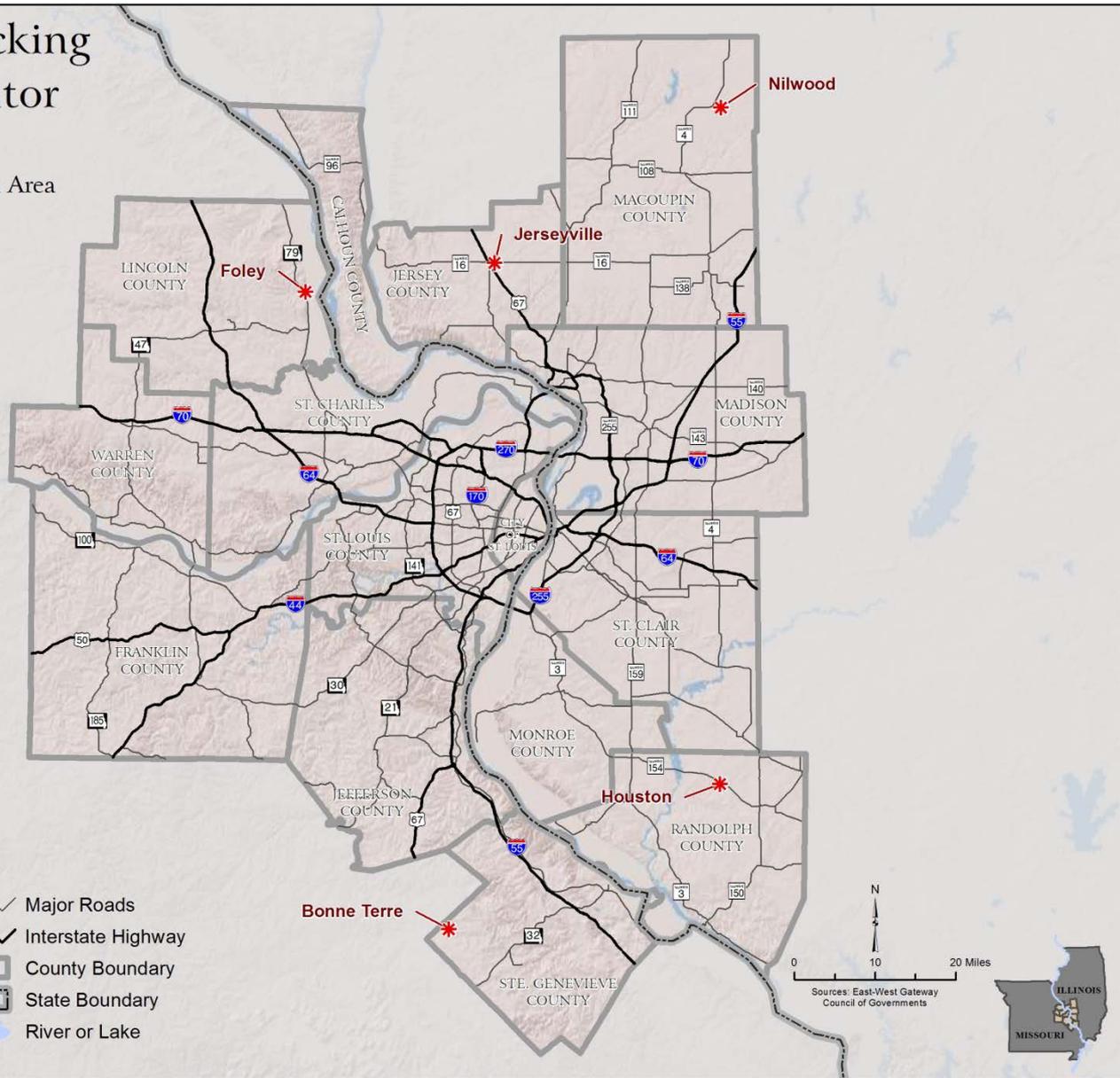
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# Transport Tracking Ozone Monitor Network

St. Louis Metropolitan Area



**EAST-WEST GATEWAY**  
Council of Governments  
*Creating Solutions Across Jurisdiction Boundaries*  
May 2014



**LEGEND**

-  Monitor Locations
-  Major Roads
-  Interstate Highway
-  County Boundary
-  State Boundary
-  River or Lake

0 10 20 Miles

Sources: East-West Gateway Council of Governments



# 2015 Ozone Standard

- 70 parts per billion (ppb)
- Exceedance at a monitor is when an 8-hour average is  $>70$  ppb
- Violation is when 3-year average of 4<sup>th</sup> highest annual average for a monitor is  $> 70$  ppb



# 2017 Season Exceedances

- Non-Attainment Area
  - 10 days
  - 21 exceedances
- Transport/Tracking Monitors
  - 5 days
  - 7 exceedances



# 2017 Exceedances

March 1 - October 31, 2017

Monitors with Exceedances of the 2015 Eight-Hour Ozone Standard

Based on Information Received by East-West Gateway Council of Governments

Date	Days with Exceedances										Total Days 10
	5-13	5-15	6-2	6-3	6-21	7-21	7-26	8-19	9-14	9-19	
<b>Monitors</b>											<b>Total Exceedances</b>
<b>Missouri</b>	<b>Ozone Values in ppb</b>										<b>by Monitor</b>
Arnold West											0
West Alton		72	78	76					73		4
Orchard Farm			82	77							2
Maryland Heights			83								1
Pacific											0
Blair Street			75								1
<b>Illinois</b>											
Wood River			78	71	72						3
Maryville	73		77	74	82	71	75	73			7
Alton									75	72	2
East St. Louis			71								1
<b>Total by Day</b>	<b>1</b>	<b>1</b>	<b>7</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>21</b>

ppb - parts per billion

Exceedance occurs when an 8-hour average of values is calculated to be greater than or equal to 71 ppb



# 2017 Exceedances

## Transport/Tracking Monitors

Transport/Tracking Monitors

March 1 - October 31, 2017

Monitors with Exceedances of the Eight-Hour Ozone Standard

Based on Information Received by East-West Gateway Council of Governments

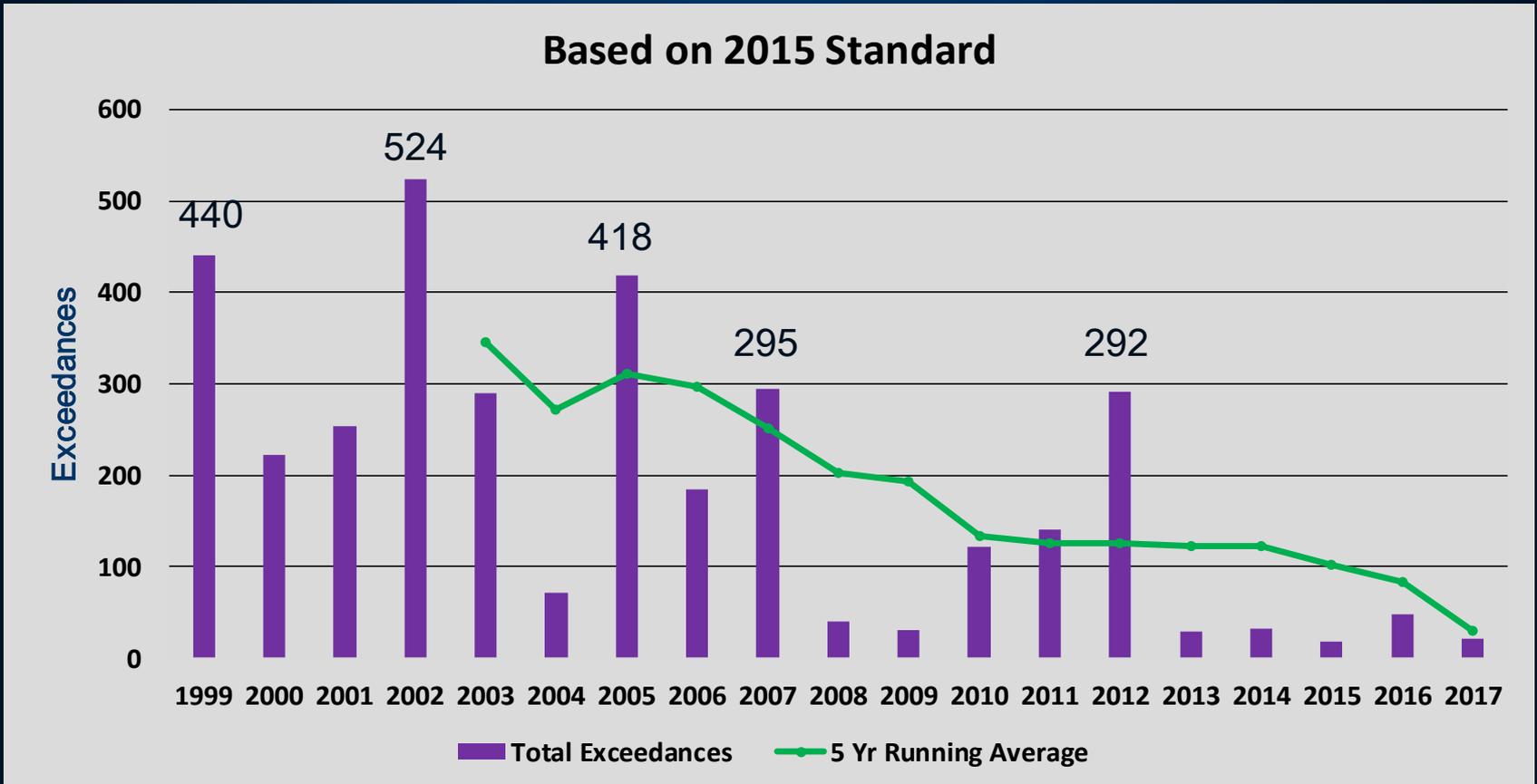
Date	Days with Exceedances					Total Days
	5-13	5-15	6-2	6-3	7-24	5
<b>Monitors</b>						<b>Total Exceedances</b>
<b>Missouri</b>	<b>Ozone Values in ppb</b>					<b>by Monitor</b>
Foley West			72			1
Bonne Terre	71				71	2
<b>Illinois</b>						
Jerseyville		71	74	76		3
Nilwood						0
Houston	75					1
<b>Total by Day</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>7</b>

ppb - parts per billion

Exceedance occurs when an 8-hour average of values is calculated to be greater than or equal to 71 ppb



# 1999 – 2017 Exceedances



2017 data is preliminary and still to be quality assured

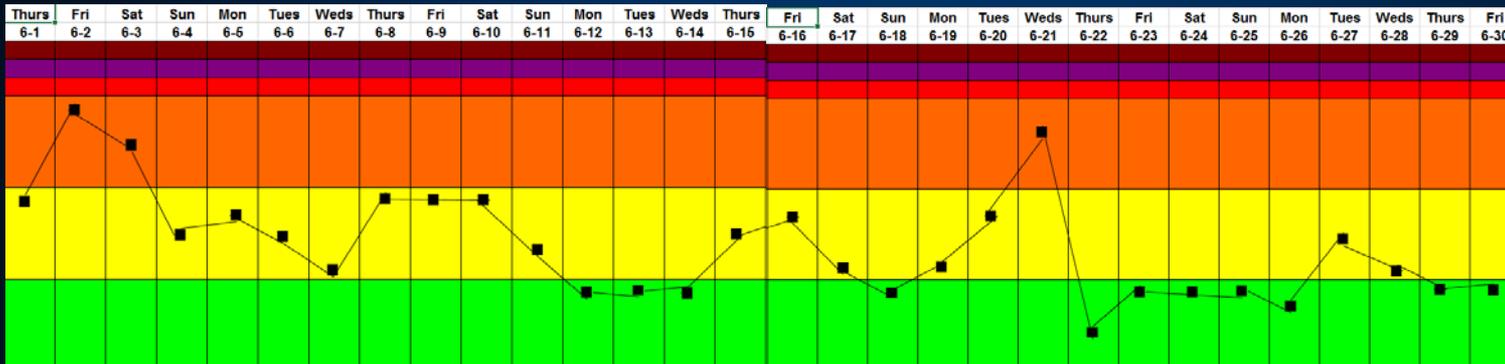
# Days with Incomplete 1-Hour Data By Monitor

- Four or more hours with no values recorded at a monitor
- Incomplete does not always mean unmonitored
- Causes - equipment malfunction, power outage, storm damage, threat of flooding, equipment relocation

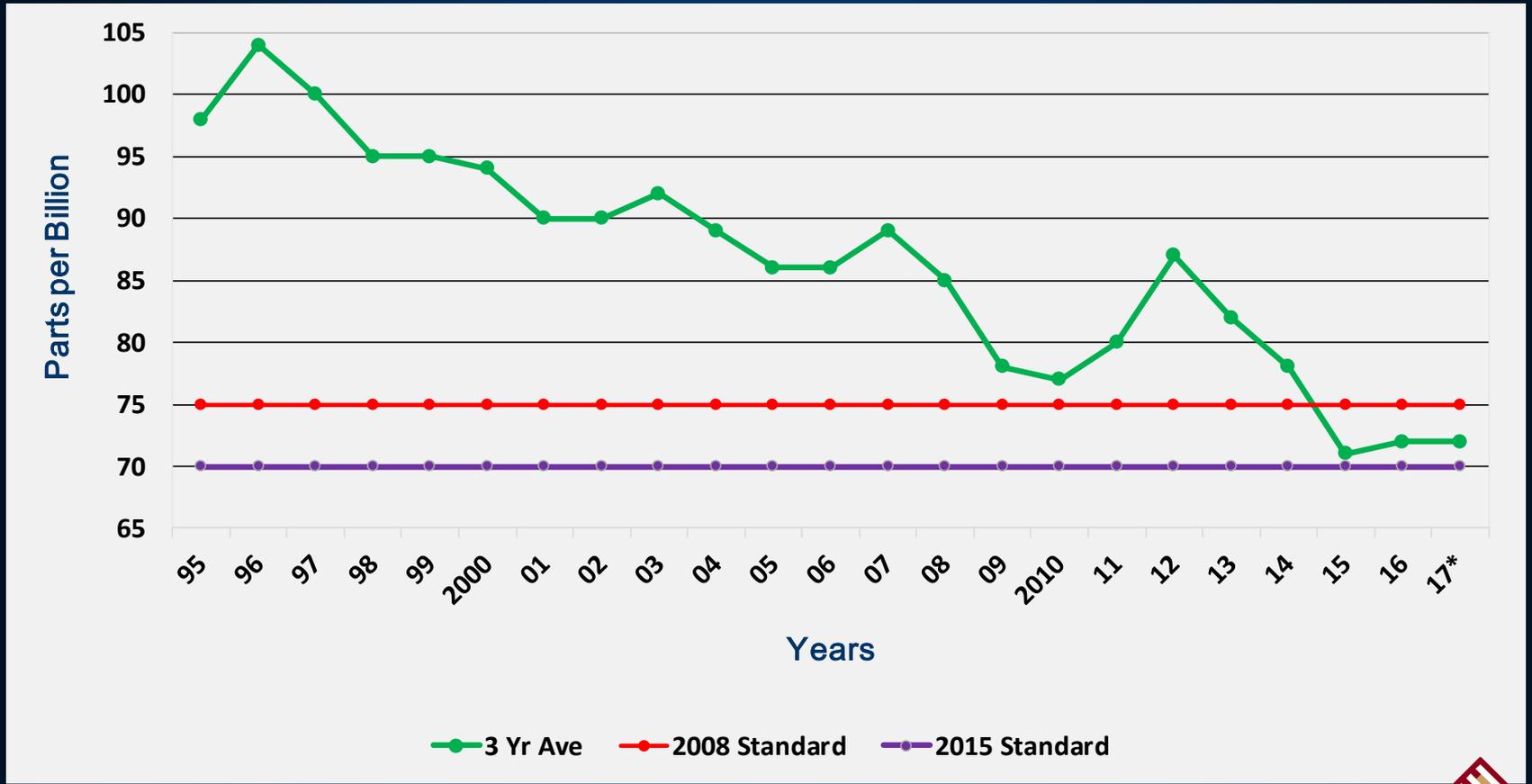


# Products

- Tables
  - 1-hour ozone values by monitor by day
  - Days with 8-hour exceedances
  - 4 highest 8-hour averages by monitor
  - Days with incomplete data
- East-West Gateway website
  - Maximum 8-hour values by monitor
  - AQI Calendar



# General Ozone Trends



\*2017 data is preliminary and still to be quality assured



# 2018 Ozone Season

- Began March 1
- As of May 21 -
  - No exceedances
  - 4 monitors have had incomplete data
- Ends October 31





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**Governments**

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



CityGarden

St. Louis Visual Air Pollution Camera 2018-05-21 16:53:01



May 21, 2018 looking east from SSM St. Mary's Health  
Center in Richmond Heights – MDNR Visual Air  
Pollution Camera