

Air Quality in Kansas City- An Overview



DIESEL IDLING WORKSHOP

JUNE 24, 2010

MIKE BOOTHE

ENVIRONMENTAL COMPLIANCE MANAGER

AIR QUALITY

JOHNSON COUNTY ENVIRONMENTAL DEPARTMENT

Air Quality in Kansas City



- **Current Attainment Status for Ozone**
- **Ozone Formation in Kansas City**
- **Johnson County Activities**

Air Quality in Kansas City



- **What is Ground-level Ozone?**
 - Commonly known as smog
- **Good Ozone-** The Ozone Layer: Occurs naturally in the upper atmosphere; blocks harmful UV sunlight
- **Bad Ozone-** Ground-level Ozone: Occurs in the lower atmosphere (ground level) when VOCs and NOx + heat + sunlight combine

Air Quality in Kansas City



What causes ground-level ozone?

Pollution + Heat + Sun = Ozone



Why is Ground-level Ozone a Concern?



- It is one of six pollutants for which EPA has set health-based standards
- Causes health problems
 - Everyone is affected
 - Most affected: young, elderly, compromised respiratory systems (asthma)
 - Ozone irritates the lungs, impairs breathing, invigorates asthma, and damages vegetation
- Causes economic problems
 - For the region: highway funds
 - For industry: operating requirements
 - Individual citizens: gasoline, vehicle inspections

Air Quality in Kansas City



- We are an Ozone Maintenance Area because we exceeded the previous ozone standard.
- We are currently in attainment with the 2004 - eight hour standard. Attainment designations with the 2008 standard were suspended.
- Good News - 2008 and 2009 ozone levels have been lower due to cool, wet summers.
- Concern – The new standard expected in August 2010 will almost certainly result in a nonattainment designation.

Air Quality in Kansas City



- The ozone standard is based on the fourth highest reading per year averaged over 3 years.
- In March 2008, EPA proposed a new, **stricter 8 hour** ozone standard (75 ppb) to replace the 1997 standard (84 ppb).
- This standard will be replaced by an even stricter standard (60-70 ppb) to be released by EPA in August 2010.
- The EPA must base **National Ambient Air Quality Standards (NAAQS)** exclusively on health effects.
- EPA decided that the 2008 standard is not sufficient to protect public health.

Implications of Violating the New Ozone Standard

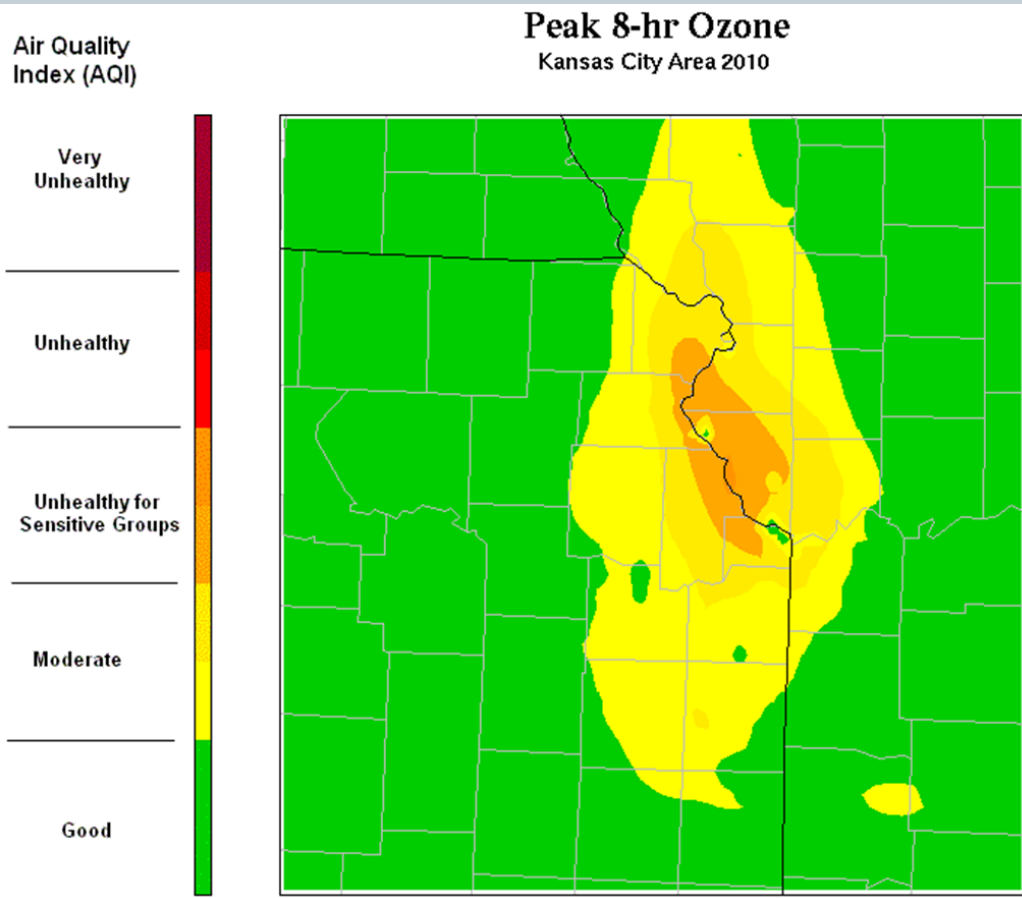


- Lengthier process for construction projects
 - Selection process
 - Review process
- Reduced flexibility in how the region spends its transportation funding
- Direct economic impacts – RFG, I/M programs, restrictions on production, more regulation
- Indirect economic impacts – Attraction for businesses to come to the KC Region

Monitors in the Greater Kansas City Region



Ozone Distribution



Johnson County Ozone Reduction Campaign



- Started in 2004, June-September
- Included County operations and employees
- Has the support of management and elected officials
- Completely voluntary basis

Accomplishments

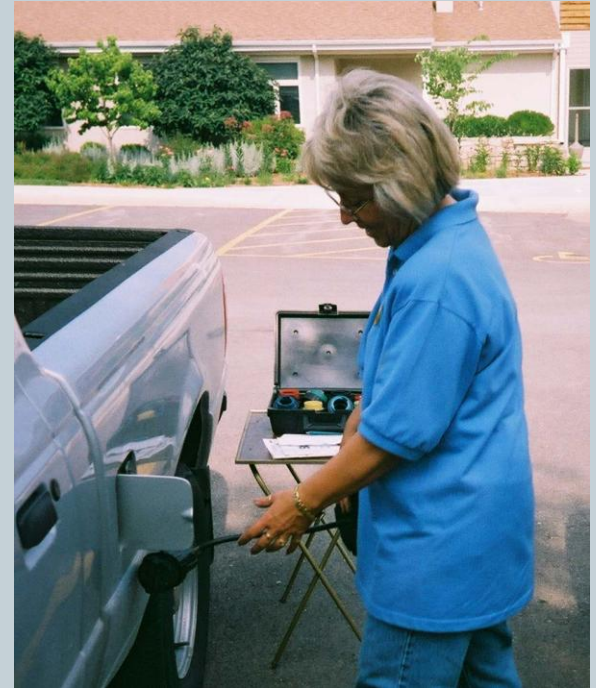


- Since 2004, 250 no-spill gas cans and 400 charcoal chimneys have been distributed to county and area residents
- Over 1,200,000 pounds of pollution has not been emitted due to participants' activities
- Over 1,200,000 miles have not been driven due to participants' efforts
- Over 3000 gas caps have been tested with approximate 10% failure rate
- Participation in Campaign has increased over 300% since 2004.

What Tools Were Created?



- Education
 - Newsletters, Web Page, Intranet
- Incentives for employees
 - On Ozone Alert Days, season participants, recognition, purchase of gas cans/charcoal chimney, gas cap testing
- Communication
 - Department coordinators, County Coordinator, email, Johnson County Desktop Alert



Interesting Facts



- A conventional lawn mower pollutes as much in an hour as driving a car from here to Wichita.
- Lawn and garden equipment users spill an estimated 17 million gallons of fuel each year when refilling outdoor power equipment (more than the Exxon Valdez spill in Alaska).
- If your vehicle's gas cap is faulty, you may be losing as much as 30 gallons of gas a year in evaporation.
- Keeping your car well tuned, with tires properly inflated, with clean air filters, and without extra weight, can increase fuel efficiency by over 15% (=saving \$\$\$\$).
- Turning off your computer when it is not in use will save over \$100 on your energy bill each year.

Air Quality in Kansas City



Questions?

Mike Boothe, 913-715-6939
michael.boothe@jocogov.org