

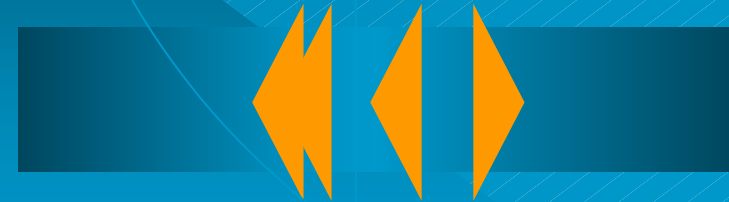
8-Hour Ozone Standard in Kentucky

Implementation &
Recommendations
January 2004



What is ozone?

- ◆ Ozone irritates the respiratory system, reduces lung function, aggravates asthma and chronic lung diseases.
- ◆ Repeated ozone damage to children's developing lungs may lead to reduced lung function later in adulthood.
- ◆ Ozone is typically not emitted, but formed from other pollutants
 - ◆ Nitrogen Oxides (NO_x)
 - ◆ Volatile Organic Compounds (VOCs)
- ◆ Ozone is a concern in the summer months when weather conditions needed to create
- ◆ ozone is more prevalent
 - ◆ Sunlight
 - ◆ Heat



Ozone Standard

- ◆ 8-hour standard adopted in 1997
- ◆ More stringent than previous standard
 - ◆ .08 ppm
 - ◆ 3 years of monitoring data
 - ◆ 4th highest 8 hour value / each year
- ◆ violation exists if average = .085 or greater
- ◆ EPA mandated by the Clean Air Act to protect human health within an adequate margin of safety



Chronology of Timeframes

- ◆ December 20, 2002 letter to Governor Patton
- ◆ Proposed 8-hour ozone nonattainment boundaries to EPA by April 15, 2003
- ◆ February 27, 2003 memorandum extending submittal date till July 15, 2003
- ◆ Submittal by Governor on July 15, 2003



Effective Dates

- ◆ States submit proposed boundaries by July 15, 2003
- ◆ Formal response by EPA Region 4 by Fall 2003
- ◆ 120 day consultation period with EPA begins Fall 2003
- ◆ EPA to publish notice early 2004
- ◆ Effective date of final designations by April 15, 2004



Nonattainment Impacts

◆ Industry Requirements

- ◆ Affects industries inside nonattainment boundaries
 - ◆ **Tighter emission controls**
 - ◆ **Must obtain/purchase emission credits or offsets for increased emissions in area**
- ◆ Smaller industries and modifications not directly affected

◆ Transportation/Road Plans

- ◆ Emissions from vehicles must be estimated and growth projected
- ◆ If a mobile emissions increase is projected, federal highway money not eligible for use in plan



Boundary Designation Criteria

- ◆ EPA's Mandatory Boundaries

- ◆ Any county with a violation of the 8-hour ozone standard

- ◆ EPA's Presumptive Boundaries

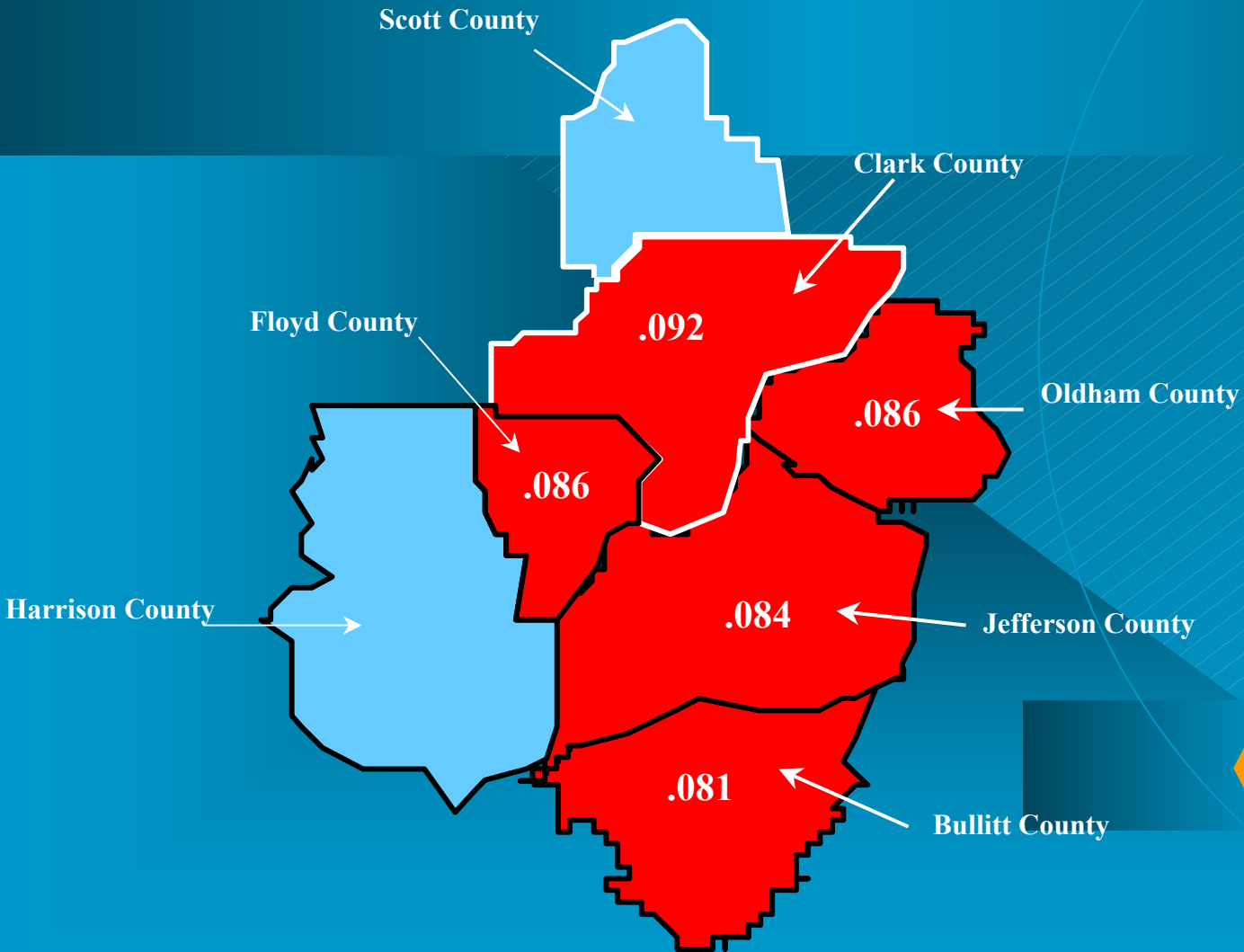
- ◆ Metropolitan Statistical Areas (MSAs)
- ◆ If states choose to differ from presumptive, 11 criteria to address



Boundary Criteria

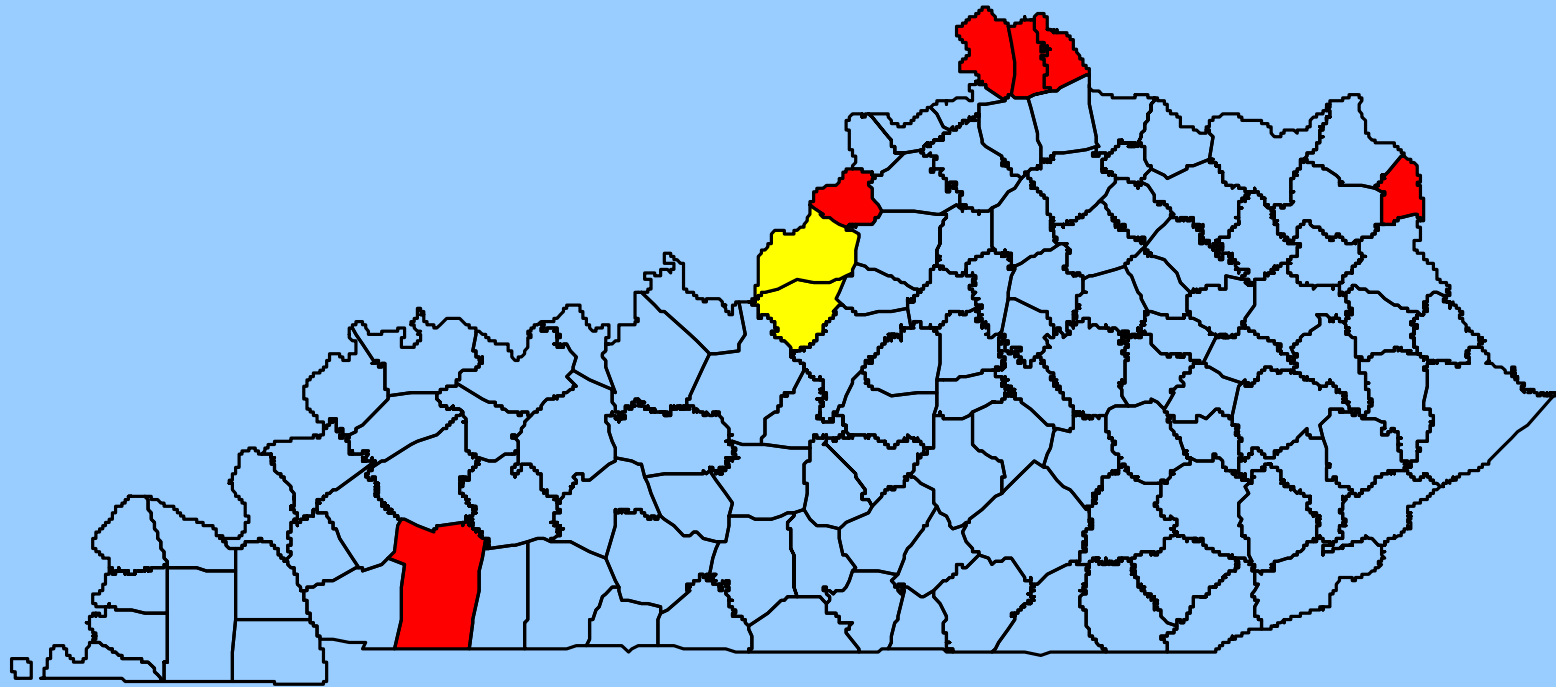
- ◆ 2000 - 2002 ozone monitoring data
- ◆ Emissions in areas or influencing areas
- ◆ Expected Growth
- ◆ Level of control of emissions sources
- ◆ Location of emission sources
- ◆ Population density & urbanization
- ◆ Traffic & commuting patterns
- ◆ Meteorology
- ◆ Regional Emissions Reductions
- ◆ Geography/topography
- ◆ Jurisdictional boundaries





Kentucky Counties EPA will Propose as Non-attainment

2001-2003 Monitoring Data



 .085 or greater

Kentucky Summary Ozone Monitoring Data 8-Hour Evaluation

4th High 8-hr average per year						
Monitor Location	2000	2001	2002	2003	2000-2002 Average	2001-2003 Average
Boone	0.083	0.083	0.094	0.078	0.086	0.085
Kenton	0.087	0.082	0.096	0.079	0.088	0.085
Campbell	0.093	0.088	0.102	0.085	0.094	0.091
Boyd	0.079	0.085	0.102	0.088	0.088	0.091
Greenup	0.077	0.088	0.084	0.078	0.083	0.083
Jefferson, Bates	0.090	0.081	0.085	0.072	0.085	0.079
Jefferson, WLKY	0.084	0.077	0.088	0.073	0.083	0.079
Jefferson, Watson	0.076	0.081	0.096	0.075	0.084	0.084
Bullit	0.082	0.082	0.091	0.072	0.085	0.081
Oldham	0.085	0.086	0.091	0.082	0.087	0.086
Christian	0.081	0.082	0.093	0.080	0.085	0.085
Bell	0.090	0.077	0.091	0.078	0.086	0.082
Warren	0.088	0.081	0.090	0.076	0.086	0.082

Current Status of Implementation Guidance

- ◆ Behind schedule for issuing
- ◆ Recently said they would propose the designation portion Subpart 1 vs. Subpart 2 by mid February 2004
- ◆ To propose timeframes for meeting the standard and control strategies with the final designations on April 15, 2004



Next Steps

- ◆ Kentucky submitted proposal on July 15, 2003
- ◆ EPA responded favorably on December 3, 2003
- ◆ EPA will propose designations winter 03-04
- ◆ Final designations by April 15, 2004
- ◆ State will prepare extended inventories & begin SIP development process
- ◆ Local area involvement
- ◆ Regional vs local controls

