

**INNOVATIVE STRATEGIES TO MITIGATE  
AIR QUALITY REGULATORY CONSTRAINTS  
TO ECONOMIC AND TRANSPORTATION DEVELOPMENT  
IN THE BATON ROUGE AREA**

**Presentation to**

**Air & Waste Management Association  
Louisiana Section**

by

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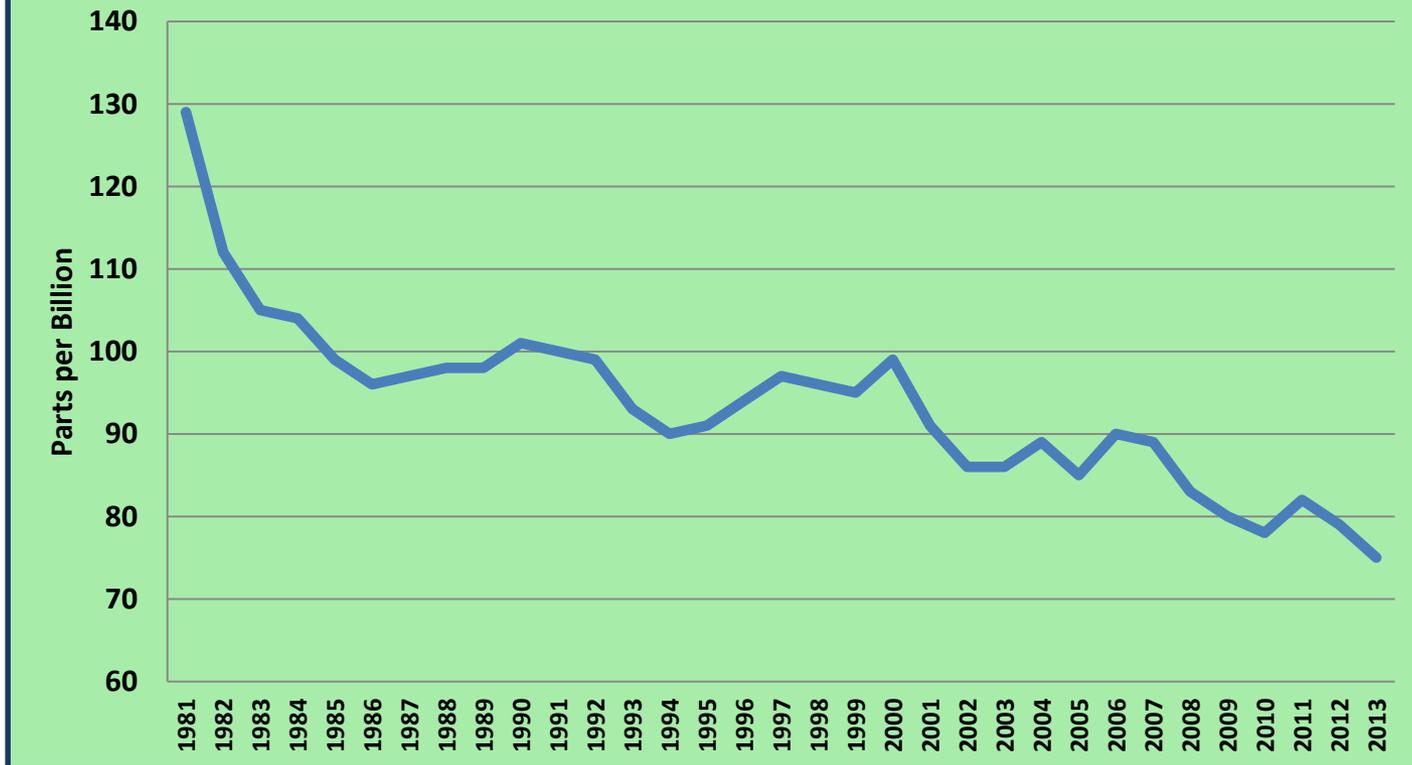
**Baton Rouge  
CLEAN AIR COALITION**

**October 29, 2014**

# PRESENTATION OUTLINE

- **Introduction**
- **Current Baton Rouge Area Air Quality Status**
- **Air Quality Regulatory Constraints to Economic and Transportation Development**
- **Proposed Mitigation Strategies**
- **Close/Questions**

## BATON ROUGE AREA 8-HOUR OZONE DESIGN VALUES



# BATON ROUGE AREA AIR QUALITY STATUS

- Presently in attainment for all NAAQS
- 2011-2013 ozone data show attainment of the 2008 8-hour standard – data verified by EPA
- Expect to be formally redesignated to attainment for ozone by EPA by early next year
- This is the third ozone standard we've met
- However, both ozone and fine particulates (PM<sub>2.5</sub>) were just barely beneath the respective standards
- We've had a pretty good ozone season this year
- We expect to see a new, more stringent ozone standard promulgated later this year

## **EXPECTATIONS FOR THE NEW OZONE STANDARD**

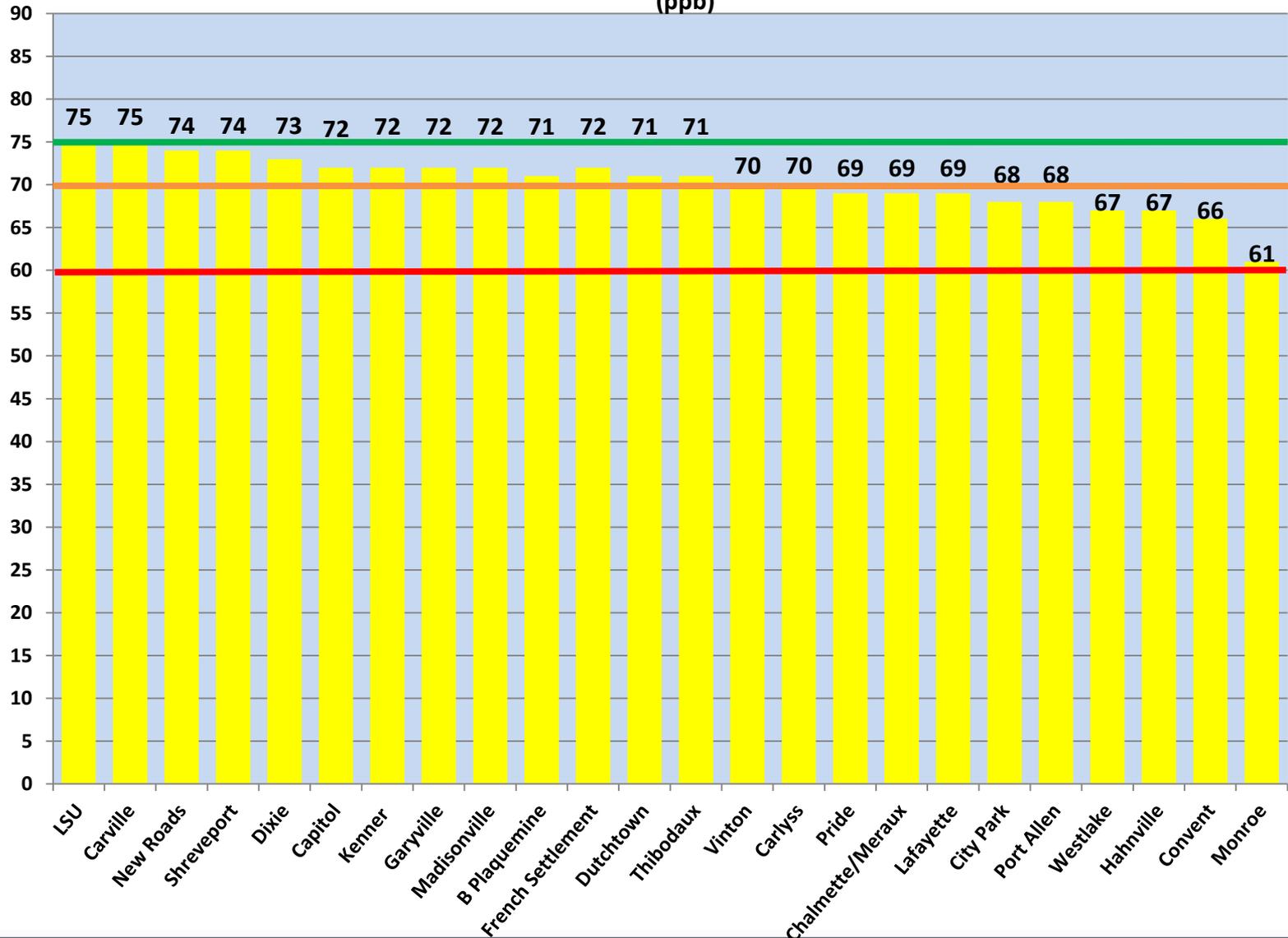
- **Expected to be proposed in the November-December time frame**
- **Expected to be in the range of 60-70 ppb (currently 75 ppb)**
- **Recent CASAC recommendations state that 70 ppb does not offer a sufficient margin of safety**
- **A standard of 60 ppb would be catastrophic economically and politically untenable**
- **So, we expect a standard perhaps a little above midrange**

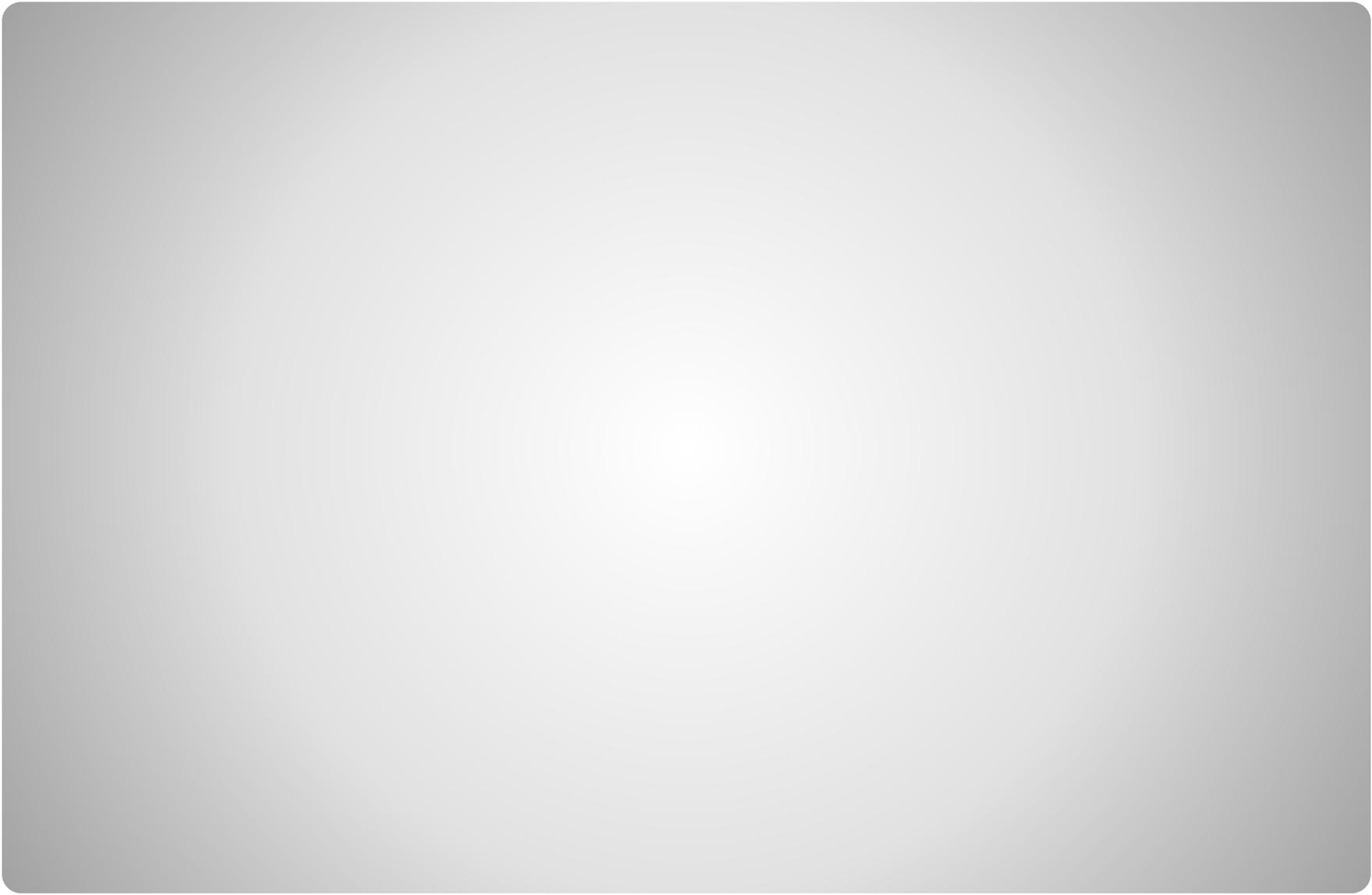
## HOW WILL THIS NEW STANDARD AFFECT LOUISIANA?

- **Depending upon the final number, the Baton Rouge area along with other currently attainment metro areas will fall into nonattainment status**
  
- **According to a recent NAMS study:**
  - ❖ **A more stringent ozone standard could reduce U.S. GDP by \$270 billion per year and carry a compliance price tag of \$2.2 trillion from 2017 to 2040**
  - ❖ **Setting the standard at 60 ppb could lower LA GSP by \$53 billion through 2040 and lead to 117,000 fewer LA jobs**
  - ❖ **Setting the standard at 60 ppb would require a 63% reduction in Louisiana NOx emissions to comply**
  - ❖ **The new standards could be the costliest regulations in U.S. history**

# 8-hr Ozone Design Values as of December 31, 2013

(ppb)





**GIVEN OUR CIRCUMSTANCES, WE ARE FACING A VERY  
SERIOUS POTENTIAL CONSTRAINT TO ECONOMIC  
AND TRANSPORTATION DEVELOPMENT**

- **ON THE TRANSPORTATION DEVELOPMENT SIDE:  
WITH NEW SEVERELY REDUCED EMISSION BUDGETS  
NEEDED TO ACHIEVE ATTAINMENT WITH THE NEW  
OZONE STANDARD, DEMONSTRATING *CONFORMITY*  
WILL BE AN OBSTACLE TO ALL NEW TRANSPORTATION  
CONSTRUCTION PROJECTS AND FEDERAL HIGHWAY  
FUNDS WILL BE JEOPARDIZED**
- **ON THE ECONOMIC DEVELOPMENT SIDE:  
LACK OF AVAILABLE *OFFSETS* WILL BE A MAJOR  
CONSTRAINT TO NEW INDUSTRIAL PROJECTS AND  
EXPANSIONS**

# THE OFFSET DILEMMA

- **UNDER THE FEDERAL CLEAN AIR ACT ALL NEW MAJOR SOURCE PROJECTS AND EXPANSIONS MUST OBTAIN PERMITS**
  - **ATTAINMENT NSR = PSD + BACT**
  - **NONATTAINMENT NSR = LAER + ALTERNATIVES ANALYSIS + OFFSETS**
- **OFFSET REQUIREMENTS HAVE ESTABLISHED RATIOS PER SEVERITY OF THE OZONE NONATTAINMENT AREA (E.G. 1:1.1 TO 1:1.3)**
- **ERCs REQUIRED FOR OFFSETS ARE EXTREMELY LIMITED AND, THUS, EXPENSIVE (\$\$\$)**
- **FOR ALL PRACTICAL PURPOSES, THERE ARE CURRENTLY NO ERCs AVAILABLE FOR OFFSETS FOR NEW PLANTS OR EXPANSIONS IN THE BATON ROUGE AREA, AND THE SITUATION WILL BECOME MUCH WORSE WITH A MORE STRICT OZONE STANDARD**
- **BRAC REPORTS THAT FOUR MAJOR PROJECTS FOR THE BATON ROUGE AREA HAVE BEEN LOST OR PLACED ON HOLD DUE IN PART TO ERC SHORTAGE**

## **PROPOSED MITIGATION STRATEGIES**

- **LACK OF EMISSION REDUCTION CREDITS**
  - **OPEN ALL SOURCES OF EMISSIONS FOR GENERATING EMISSION REDUCTION CREDITS (E.G. POINT, MOBILE, AREA)**
  - **GREATER FLEXIBILITY IN EMISSIONS TRADING (INTERPOLLUTANT TRADING)**
  
- **OZONE NONATTAINMENT**
  - **REGIONAL AIR QUALITY MODELING AND NEW LDEQ RULES FOR REDUCING EMISSIONS OF OZONE-FORMING POLLUTANTS**
  - **INNOVATIVE VOLUNTARY MEASURES (EPA ADVANCE PROGRAM)**

**BRCAC EXPLORING NEW STRATEGIES FOR EARNING ERCs TO HELP PERMIT NEW INDUSTRIAL PROJECTS AND EXPANSIONS IN THE BATON ROUGE AREA (“OFF-PROPERTY PROJECTS”)**

- **PRODUCTION OF ERCs PRESENTLY LIMITED TO STATIONARY SOURCES (INDUSTRIES)**
- **PROPOSING TO OPEN PRODUCTION OF ERCs TO MOBILE (ON- AND OFF-ROAD) AND AREA SOURCES AS WELL (NOT UNPRECEDENTED) - CA MERCs FOR POWER PLANT, CASH FOR CLUNKERS, BAY DISTRICT IERCs**
- **EXAMPLES OF POSSIBLE LOCAL PROJECTS: DIESEL ENGINE RETROFITS FOR MARINE VESSELS, TRUCK STOP ELECTRIFICATION, SEWAGE TREATMENT PLANT UPGRADES, ENERGY EFFICIENCY PROJECTS, ALTERNATIVE ENERGY (E.G. SOLAR)**
- **DEQ RULE CHANGE IS CURRENTLY BEING CONSIDERED**

## **BRCAC EXPLORING NEW STRATEGIES FOR EARNING ERCs TO HELP PERMIT NEW INDUSTRIAL PROJECTS AND EXPANSIONS IN THE BATON ROUGE AREA (“OFF-PROPERTY PROJECTS”)**

- **GREATER FLEXIBILITY IN EMISSIONS TRADING (INTERPOLLUTANT TRADING - NOX AND VOC)**
  - **REGIONAL AIRSHED MODELING BY ALPINE GEOPHYSICS FUNDED BY LED AND BRAC**
  - **PRELIMINARY RESULTS INDICATE THAT THERE IS NO ONE UNIFORM TRADING RATIO BETWEEN NOX AND VOC ACROSS THE BATON ROUGE REGION**
  - **POSSIBLE DEQ RULE CHANGE TO ALLOW TRADING OF NOX AND VOC CREDITS IS BEING CONSIDERED, BUT WITH THE CAVEAT THAT TRADING RATIO MUST BE ESTABLISHED ON A CASE-BY-CASE BASIS**

## Voluntary Emission Reduction Strategies

- *Alternative Energy*
- *Energy Efficiency*
- *Episodic Controls*
- *Urban Heat Island*
- *Research/Application of New Technologies*
- *Public Outreach and Education*
- *Other*

**BATON ROUGE AREA  
CLEAN AIR ACTION REPORT**



Prepared for

**ADVANCE**  
A U.S. Environmental Protection Agency Program

**EPA'S OZONE AND PM ADVANCE PROGRAM**

Prepared by



December, 2013

The objectives of this report were:

1. To characterize the Baton Rouge area with respect to its air quality
2. To document the progress the Baton Rouge area has made in air quality improvements and the many efforts that have been made to realize those improvements, and
3. To present a plan for future efforts to further improve Baton Rouge area air quality in order to meet EPA's requirement for a "Path Forward" plan within its Advance Program.

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## CONCLUSIONS

### *IF IMPLEMENTED, THESE STRATEGIES WILL:*

1. ALLOW FOR CONTINUED ECONOMIC AND TRANSPORTATION DEVELOPMENT (INCREASED AVAILABILITY AND LOWER COSTS FOR ERCs)
2. PROVIDE FOR OVERALL RATCHETING DOWN OF EMISSIONS IN THE NONATTAINMENT AREA
3. REDUCE EMISSIONS FROM IMPORTANT OZONE PRECURSOR SOURCES NOT EASILY REGULATED BY LDEQ (E.G. MOBILE AND AREA SOURCES)
4. FACILITATE OVERALL EMISSIONS REDUCTIONS IN PURSUIT OF OZONE ATTAINMENT
5. OPEN UP A NEW AREA OF BUSINESS OPPORTUNITIES

**Close/Questions?**