



OFFICE OF THE MAYOR
SHREVEPORT, LOUISIANA

CEDRIC B. GLOVER
MAYOR

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September 30, 2013

Ozone Advance
c/o/ Laura Bunte
U. S. Environmental Protection Agency
Office of Air Quality Planning and Standards, C304-01
Research Triangle Park, NC 27711

Dear Ms. Bunte:

On behalf of all the local governing bodies participating in the Ozone Advance program (City of Bossier City, Caddo Parish Commission, Bossier Parish Police Jury, DeSoto Parish Police Jury and the City of Shreveport), we are hereby submitting our initial path forward letter, listing actions we are taking in order to reduce emissions contributing to ozone. Our goal is to maintain the area's current attainment status.

BACKGROUND INFORMATION

Ozone and its health effects. Ground level ozone is created by chemical reactions between oxides of nitrogen (NO_x) and volatile organic compounds (VOCs) in the presence of sunlight. Ozone in the air we breathe can harm our health, and is a particular concern for people with lung disease, children, older adults and people who are active outdoors. Health problems may include chest pain, coughing, throat irritation, and congestion. Ozone can also worsen bronchitis, emphysema and asthma, and can reduce lung function and inflame the linings of the lungs.

Ozone is particularly likely to reach unhealthy levels on hot sunny days in urban environments.

Local ozone factors and levels. The Shreveport-Bossier City Metropolitan Statistical Area (SBMSA) is located in the northwest corner of Louisiana, in the heart of the Deep South. Unlike most other urban areas of the state which are closer to the Gulf of Mexico and therefore routinely experience cooling showers and cloud cover from the Gulf during the hottest months of the year, Shreveport's driest three months on average are July, August and September. It is common for high pressure systems to park over the region for extended periods during the summer, resulting in multiple days and weeks with no rain and oppressive temperatures which create prime conditions for the formation of ozone. During the particularly hot and dry summer of 2011, there were 62 days when the temperature exceeded 100 degrees. The average daily high temperature in August of that year was 104.4 degrees. Not surprisingly, despite the overall downward trend over the years in local ozone levels, higher-than-normal ozone levels were recorded during the 2011 summer.



Both within and outside of the SBMSA, there are numerous sources of NO_x and VOC emissions that likely contribute to ozone formation. Transportation activities are a significant anthropogenic source in the Shreveport area. The SBMSA is located at the intersection of major east-west and north-south interstate highways (I-20 and I-49), and is the home of Kansas City Southern Railroad's largest rail yard and main locomotive repair shop as well as the point of intersection between KCS's largest east-west and north-south lines. Barksdale Air Force Base is also located within the SBMSA—it is home to the Air Force's B52 bomber fleet.

Other anthropogenic sources include electrical generation, manufacturing/industry, and other population-related sources (household products, home heating, recreational equipment, etc.) There are several local industrial sources and three power plants located within the SBMSA. A number of electrical generation stations and chemical and petrochemical industry sources are also located in nearby northeast Texas.

In addition, ozone concentrations in the Shreveport area are influenced by VOC emissions from biogenic sources, including the region's extensive hardwood and softwood forests, other natural vegetation and various crops that are raised in the region.

Appendix A shows the location of the area's two ozone monitors, and Appendix B contains a graph showing the area's design values for ozone dating back chart to 1980 and reflecting the overall downward trend in ozone levels over the years.

VOLUNTARY ACTIONS TO REDUCE OZONE

Appendix C is a table listing actions being taken or planned at the local level to reduce emissions which cause or contribute to the formation of ozone. These actions are discussed in more detail below:

Stakeholder Participation

An essential initial step in formulating our action plan was to identify and secure the participation of key stakeholders, in addition to the above mentioned governing bodies. In our case, the area's previous participation in EPA's Ozone Flex and Early Action Compact programs had already resulted in the formation of an ozone action network, consisting of many of the major industries and employers in the region. Efforts to reestablish, invigorate and expand the network began in earnest at the same time that the area's Ozone Advance sign-up letter was submitted to EPA (July 2012), with a kickoff stakeholder meeting hosted by the Louisiana Department of Environmental Quality (LDEQ) and the regional Coordinating and Development Corporation, a non-profit entity which promotes economic development in the region. Stakeholders and local media were briefed on the area's ozone attainment status and the Ozone Advance program.

Efforts to build stakeholder participation have continued over the past year and culminated with the stakeholder meeting held on April 11, 2013, sponsored by the Shreveport Chamber of Commerce and the local electric utility, AEP-SWEPCO, and attended by representatives of numerous local industries, utilities, government agencies, environmental groups, chamber officials and media. At present, the local ozone action stakeholder network consists of around 50

entities representing an estimated 125,000 employees and students. A current stakeholder roster is attached as Appendix D.

Stakeholders receive regular e-mail updates on air quality issues, including daily air quality forecasts through EPA's Enviroflash program, and are encouraged to develop or update ozone action plans specific to their facility. An example of one recently updated Ozone Action Plan prepared by one of our stakeholders is attached as Appendix E.

Through the meetings mentioned above, as well as mass e-mailings and phone calls, stakeholders have been invited to assess their own processes and policies in an effort to identify voluntary measures specific to their facilities or operations which could be implemented to reduce ozone-causing emissions.

Public Awareness

Our area has been in attainment of the ozone standard for years, so the ozone issue has not historically been at the forefront of community discussion or media focus. Consequently, we understood the importance of a public awareness campaign that would educate the public on the nature of the situation, inform them of actions they can take to help, and solicit ideas for substantive voluntary measures which could be implemented locally.

Media campaign. A number of steps have been taken to inform and engage the local media: Appendix F is a copy of a press release issued by LDEQ on March 19, 2013, providing basic information on the local ozone situation and inviting citizens to submit ideas on ways to improve air quality via "survey monkey." On Earth Day, a press conference was held by local officials at the fleet yard of the regional transit authority (SPORTRAN), where the air quality benefits of its new CNG and hybrid electric buses were featured and the ozone issue was discussed in depth.

As the 2013 ozone season began, efforts were made to continue to engage the local media, and ozone stories were featured in the Shreveport Times (see Appendix G for a copy of the headline story which ran on May 20) and on local TV stations. LDEQ and City of Shreveport officials appeared on the local TV news circuit to help get the word out on the local situation.

EPA School Flag program. The Caddo Parish School Board Science Program Coordinators for k – 8 and high school have both committed to recruit schools and science clubs to participate in this program, beginning with the 2013-14 school year. Planning meetings have taken place and our goal is to have at least five local schools participating. Schools in Caddo Parish that have initially indicated they will participate in the program include Queensborough, Westwood and Summerfield Elementary Schools, and Woodlawn and North Caddo High Schools.

Efforts will be made to expand the programs into the other two parishes over the course of the next year, and to expand participation within Caddo Parish.

Website/social media. The City of Shreveport has updated its website to include ozone information and links. The City will utilize Facebook and other social media to expand outreach efforts.

Ozone Action Day declarations. Daily ozone forecasts are sent by e-mail to ozone action program participants, and when ozone action days are forecast for the area, the LDEQ notifies all local ozone action program participants and local news media. The LDEQ has arranged with the state Department of Transportation and Development for traffic message boards located along Interstates 20 and 49 through Shreveport and Bossier City to flash ozone information when action days are declared.

CNG Infrastructure and Fleet Conversions

Driven in large part by the air-quality benefits from converting vehicle fleets from diesel or gasoline to compressed natural gas, and as a result of local outreach efforts promoting the use of alternative vehicles, the Shreveport-Bossier City area is undergoing a transformative change. CNG fueling infrastructure has recently been installed at various sites throughout the metroplex, making CNG readily available to public and private fleets for the first time. As a result, numerous public and private fleets are replacing their old gasoline and diesel vehicles with cleaner burning CNG vehicles.

At present, there are six locations in the Shreveport-Bossier City metropolitan statistical area with CNG fueling facilities available to the public which have come on line in recent months:

City of Bossier City (2)

- 2810 E. Texas Street, Bossier City, LA 71111
- 4530 Barksdale Blvd., Bossier City, LA 71112

City of Shreveport

- 1731 Kings Highway, Shreveport, LA 71103

Time-It Lube

- 6828 Pines Road, Shreveport, LA 71129

Relay Station

- 6797 Highway 175, Frierson, LA 71027

Chevron Shop-A-Lot

- 796 Washington Avenue, Mansfield, LA 71052

Another publicly accessible CNG fueling site has recently been built and is located just outside the MSA, in Red River Parish.

The City of Shreveport site mentioned above includes time-fill fueling portals which service its new CNG garbage truck fleet. (In addition to the publicly accessible sites listed above, the region's transit authority, SPORTRAN, has a fast fill station serving its new CNG bus fleet which is not open to the public. Within the next several months, another local company and ozone action plan participant, Ivan Smith Furniture, will be installing CNG fueling facilities at its warehouse in Shreveport to serve its private fleet.)

Appendix H contains a spreadsheet listing some of the CNG fleet vehicles which have been placed into service locally within roughly the last two years and/or are planned or under

consideration for the near future, displacing their gasoline or diesel counterparts, based on a recent informal fleet survey of ozone action program participants and other local fleets.

Energy Efficiency Initiatives

Energy efficiency is a key component of our local strategy for ozone precursor emission reduction and has been a featured part of stakeholder meeting discussions. A number of programs and projects have been recently implemented and/or are ongoing or planned in this regard.

Hiring of Energy Efficiency Program Manager. The City of Shreveport has retained a full-time Energy Efficiency Program Manager, charged with identifying energy-saving measures for City operations as well with educating the entire community on the topic and developing programs for local residents and businesses. Initially funded with grant monies from the U. S. Department of Energy's EECBG program, the City has taken over funding of the position as of January of this year.

Residential & small commercial energy audit program. Through a partnership forged in 2012 between the City of Shreveport and AEP-SWEPCO (the local electric utility and ozone action program participant), funding is currently available to City residents and small commercial entities for energy audits of their residences or businesses. The funding offsets the costs of the audits so that, in most cases, the customer must only come up with \$100 out of pocket. The audits provide customers with a list of improvements needed to optimize energy efficiency for their homes or businesses, and quantifies the costs and savings expected to be achieved. Since the inception of the program (which initially utilized seed money from the EECBG program but is now funded through the City-AEP partnership), over 150 initial audits have been completed, and roughly half of those have installed the recommended retrofits.

Residential energy efficiency retrofit loan program. In order to further facilitate residential energy efficiency improvements, the City has partnered with Bancorp South on a program which provides low-interest loan to residents for energy efficiency retrofits to their homes, after audits have been performed.

Other energy efficiency projects. In 2012, the City completed work on two on-the-ground energy efficiency retrofit projects funded by the EECBG program. One project involved the replacement of traffic/pedestrian signals with LED signals, at approximately 100 intersections throughout the city; the other project involved replacement of outdoor lighting with LED lights at the City's Festival Plaza site. The traffic signal project resulted in an estimated annual decrease of over one million Kwh, and the Festival Plaza project resulted in an estimated annual decrease of over 250,000 Kwh.

Energy efficiency is also a stated goal of the Master Plan recently completed for the City and Caddo Parish, and incentives and other measures designed to promote energy efficiency in new structures are expected to be built into the new Unified Development Code which is currently being developed for the City and Parish.

Additional Commitments/Initiatives

Ternium. Ternium, a manufacturing facility located at the Caddo-Bossier Port that produces steel-coated coils, is an active participant in our ozone action program. The company has recently invested \$3.65 million to replace the existing “recuperative thermal oxidizer” (afterburner), which is used to ensure the VOC emissions from the painting process are efficiently destroyed, with a “regenerative” thermal oxidizer. The project is expected to result in a greater VOC destruction percentage than is currently achieved or required, and also will result in significant reductions in natural gas and electricity usage at the facility. Gas usage is expected to drop by 41% or 100,000 MMBTUs per year, and electrical consumption by 47% or 5.38 MKWh per year. The unit has been purchased and is expected to be installed and commissioned by late 2013.

Barksdale Air Force Base. Barksdale has been a key cog of the local community for many years. It is headquarters for the 8th Air Force and 2nd Bomb Wing, as well as the newly created Global Strike Command, and is home to the Air Force’s B52 bomber fleet. Barksdale representatives have actively participated in ozone action program meetings and discussions, and have identified a wide variety of measures being taken or planned for the purpose of reducing emissions which contribute to the formation of ozone. Those measures are listed in the attached table, Appendix C.

In addition, as of May, 2013, BAFB is no longer home to the A-10 aircraft. BAFB officials have estimated that this change alone will result in a 10 – 15% decrease in NOx and VOC emissions from flying and ground support.

Chesapeake Energy. Chesapeake Energy is the largest leasehold owner and driller of new gas wells in the “Haynesville Shale,” a large recently discovered natural gas field centered around the Shreveport-Bossier City MSA. Chesapeake is also an active ozone action program participant, and has committed to a number of operational improvements which reduce the emission of ozone precursors:

- Turning off heater treaters and line heaters (both of which are utilized to aid in gas production) when the process does not require heat input, resulting in decreased combustion emissions
- Using specially designed automation equipment that throttles the well when vessel pressures increase
- Installing snap-acting and low-bleed pneumatic devices that accomplish process monitoring and control with minimal gas consumption
- Instituting a voluntary FLIR camera inspection program that provides additional assurances that process leaks are minimized.

Kansas City Southern Railroad. As mentioned, Shreveport is the home of KCS’s largest rail yard and is also the location of the main KCS repair shop. The Shreveport yard is the largest railroad switching yard in the region. During the 2008 – 9 time frame, KCS began and completed a voluntary program of bringing its older (1993 – 2000) locomotives up to “Tier 0” level for NOx reduction. The program involved roughly 175 locomotives nationwide, all of which pass through its Shreveport yard from time to time. More recently, KCS was awarded a DERA grant which helped to fund the installation of automatic engine start-stop equipment on its locomotives used for switching, approximately 20 – 25 of which operate at the Shreveport yard

and the smaller Bossier yard. All switch engines located at both yards received the upgrades. Installation was completed in mid-2012.

CLECO/AEP-SWEPCO. The largest power plant in the SBMSA is the Dolet Hills plant in DeSoto Parish, jointly owned by CLECO and AEP-SWEPCO, and operated by CLECO. The plant has recently installed a selective non-catalytic reduction system, for the purpose of reducing NOx emissions. The utilities have voluntarily agreed to run the SNCR system during periods when high ozone levels are forecast for the area. During the week of August 26, 2013, and in response to the first ozone action days of the year declared by DEQ, this equipment was run.

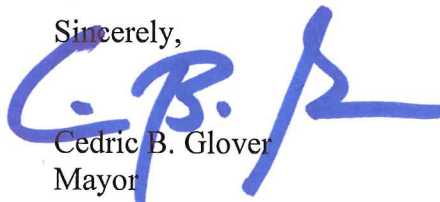
Anti-idling initiatives. In 2013, both SPORTRAN (the regional bus transit authority) and the City of Shreveport's Water and Sewerage Department have implemented anti-idling policies for their buses and fleet vehicles.

Mass transit promotions. In an effort to promote the availability and utility of local mass transit options, SPORTRAN is offering monthly bus pass discounts to employees and students of ozone action program participants. In June 2013, SPORTRAN hosted a "Dump the Pump" event which received local media coverage.

Louisiana Department of Environmental Quality. The assistance we have received from the LDEQ has been invaluable in our ozone advance efforts. LDEQ has overseen emissions inventory and modeling work on a statewide basis, and has also been instrumental in assisting with public/media awareness campaigns. Appendix I is a summary of LDEQ's work in this regard.

We will continue to work to identify additional local controls that can be implemented voluntarily in an effort to reduce ozone-causing emissions, and we will keep you informed of our progress. Over the next year, we will also work to build systems to more precisely quantify emissions reductions resulting from the measures listed above and additional identified controls. We greatly appreciate the support and guidance we continue to receive from EPA headquarters and Region 6 as we work to find ways to improve local air quality.

Sincerely,



Cedric B. Glover
Mayor

CBG/jww

cc: Carrie Paige, EPA Region 6

Michael Vince, Louisiana Department of Environmental Quality

Hon. Lorenz Walker, Mayor of Bossier City

Woody Wilson, Parish Administrator, Caddo Parish Commission

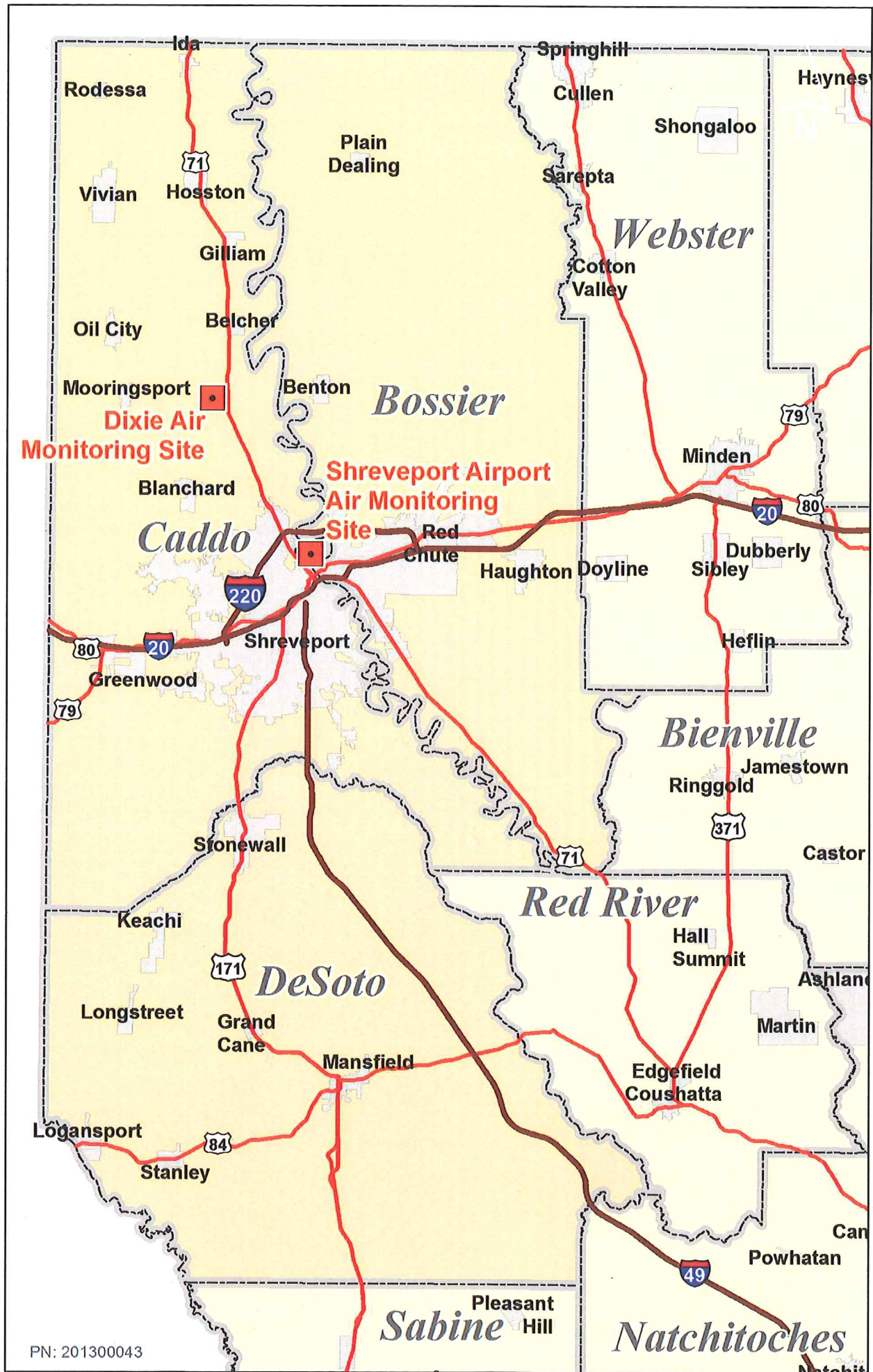
Bill Altimus, Parish Administrator, Bossier Parish Police Jury

Steve Brown, Parish Administrator, DeSoto Parish Police Jury

Kent Rogers, Executive Director, Northwest Louisiana Council of Governments

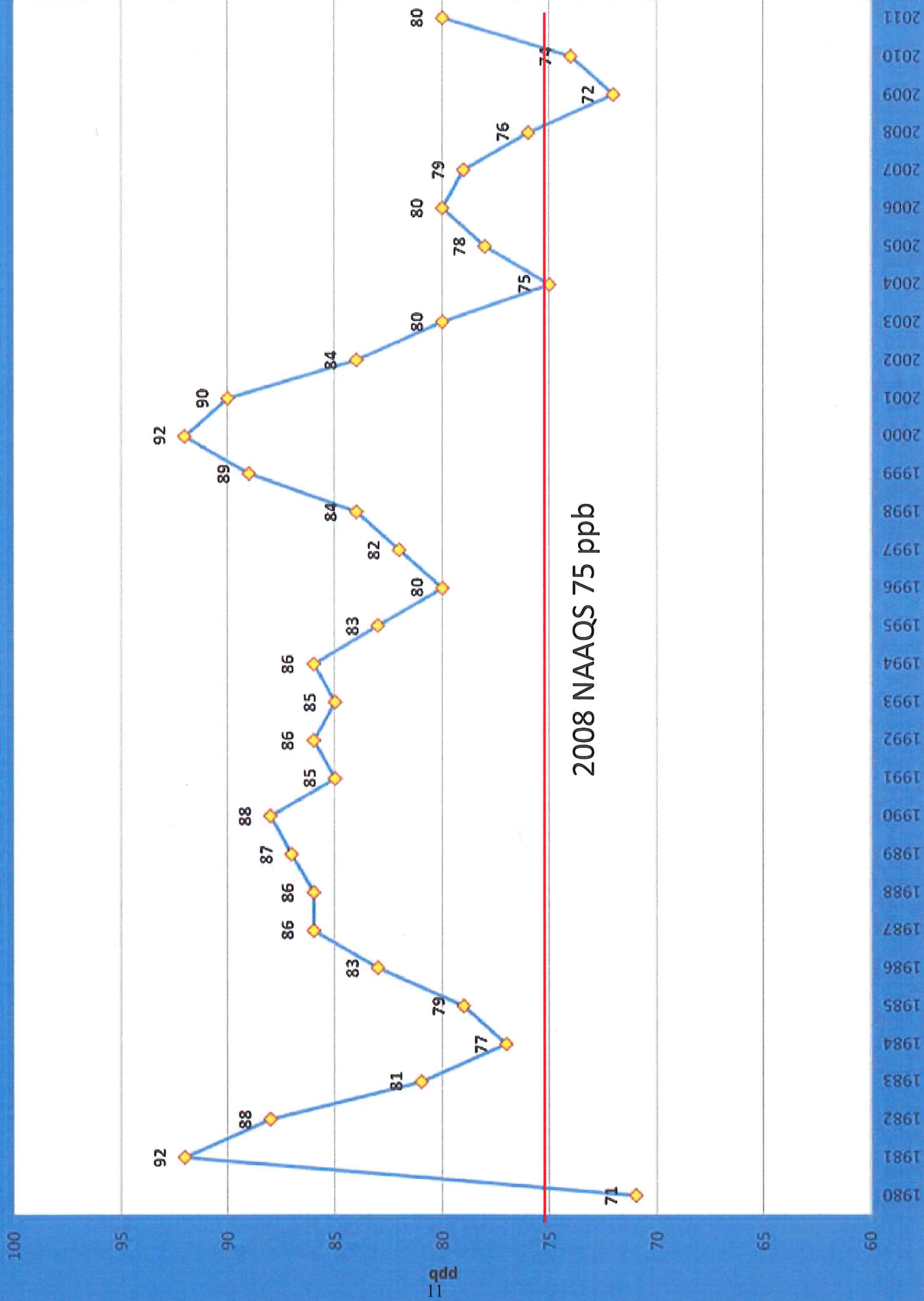
Wes Wyche, City of Shreveport

APPENDIX A



APPENDIX B

Shreveport Area Ozone Design Values, 8-Hour



APPENDIX C

RESPONSIBLE PARTY	ACTION	START DATE	COMPLETION DATE
City of Shreveport/Local Ozone Action Network	Reorganize/revitalize local ozone action network	Kickoff meeting held July, 2012	Ongoing—efforts continue to increase number of stakeholders and stakeholder participation
City of Shreveport/Local Ozone Action Network	Media campaign	Press release issued March 19, 2013; issuance of survey Press conference held Earth Day 2013 TV appearances, Spring 2013	Ongoing, with heavy emphasis at outset of each ozone season
City of Shreveport	School Flag Program	Meet with school board curriculum coordinators August 2013 Meet with individual schools September & October 2013	Obtain commitments from at least 5 schools in Caddo Parish before end of year 2013 Obtain commitments from at least 5 schools in DeSoto and Bossier Parishes by ozone season 2014
Louisiana Dept. of Transportation and Development	Display ozone information on electronic traffic billboards before during ozone action days	Ozone season 2013	Ongoing during ozone seasons
Barksdale Air Force Base	Conduct annual “Energy Awareness Month” drive, with booths set up at Barksdale Exchange	Annually each October	
City of Shreveport	Update/Improve local Air Quality website	2013	Ongoing

City of Shreveport, Barksdale Air Force Base	Utilize internet and social media, including Facebook and Twitter, for outreach efforts	2013	Ongoing
City of Bossier City	Installation of two publicly accessible CNG fueling stations; replacement of old gasoline/diesel fleet vehicles with new CNG vehicles	Began 2011	Fueling infrastructure completed by 2011; as of summer 2013, 6 dump trucks, 1 sweeper, 45 SUVs and 30 pickups purchased; 19 SUVs under consideration for 2014
SPORTAN	Installation of fast-fill CNG fueling facility; Replacement of 14 old diesel buses and 3 para-transit vans with CNG vehicles	Began 2010	Completed 2011
City of Shreveport	Installation of public accessible CNG fueling facility; replacement of 19 old diesel garbage trucks with diesel trucks	Initial buses acquired 2011	Station complete and open to public spring 2013; buses purchased and in service 2012
Time-It Lube	Installation of publicly accessible CNG fueling facility		Opened to public mid-2012
Relay Station	Installation of publicly accessible CNG fueling facility		Opened to public Spring 2012
Chevron Shop-A-Lot	Installation of publicly accessible CNG fueling facility		Opened to public Spring 2012
Numerous local fleets (See Appendix H)	Conversion of fleets to CNG	Ongoing	
City of Shreveport	Funding of full-time Energy Efficiency Program Manager position	February, 2013	Ongoing

City of Shreveport-AEP-SWEPCO	Residential & Small Commercial Energy Audit program	First audits funded by partnership January 2013 (program initially funded with DOE grant seed money in 2010)	Ongoing
Bancorp South	Residential Energy Efficiency Retrofit Loan Program	2011	Ongoing
Ternium	Replacement of VOC destruct equipment with more effective/efficient equipment	Purchase of unit, summer 2013	Installation expected by fall/winter 2013
Kansas City Southern Railroad	Installation of automatic engine start-stop system on switching locomotives; approximately 20 – 25 switch engines operate at the Shreveport yard	2011	Completed mid-2012
CLECO/AEP-SWEPCO Dolet Hills Power Plant	Operate new “selective non-catalytic reduction system” during ozone action days	Ozone season 2013	ongoing
Chesapeake Energy	Implementing various operational controls which reduce compression and other equipment operation time		Implemented as of 2012
SPORTRAN	Offering discounted monthly bus passes to employees/students of Ozone Action Network participants	Ozone season 2013	Ongoing during future ozone seasons
SPORTRAN, City of Shreveport Department of Water and Sewerage	Implementation of fleet anti-idling policies	Summer 2013	Ongoing
Barksdale Air Force Base	Replacement of boilers with energy efficient units in 5 buildings		Completed 2012
Barksdale Air Force Base	Installation of more energy efficient lighting in 38 buildings		Completed 2012

Barksdale Air Force Base	<p>Sustainable Infrastructure Audit</p> <p>Projects identified in audit:</p> <ul style="list-style-type: none"> - Replace existing units, chillers, condensers or motors in 22 buildings with energy efficient equipment - Replace boilers in 23 buildings with energy efficient units 		Audit completed in 2012
Barksdale Air Force Base	Execute grounds maintenance contract specifying curtailed/restricted equipment use in order to lower emissions	Contract signed August, 2013	Projects to be completed by September, 2015
Caddo Parish, City of Shreveport	Incorporate energy efficiency measures and incentives into new Unified Development Code	Consultant retained to develop code, 2013	2015
City of Shreveport/Ozone Action Network	Review/evaluate path forward actions and revise as needed		At least annually

APPENDIX D

**Greater Shreveport – Bossier City
Ozone Action Program Participants**

A-1 Charter
AEP – SWEPCO
Barksdale Air Force Base
BASF Corporation
BHP Billiton
Bossier Parish Community College
Bossier Parish Police Jury
Bossier Parish School Board
Brammer Engineering
Caddo Parish Commission
Caddo Parish School Board
Calumet Lubricants
Centenary College
Central Oil
Centerpoint Energy
Chemtrade Logistics
Chesapeake Energy
City of Bossier City
City of Shreveport
Desoto Parish Police Jury
Dr. Reddy's Labs
Eagle Distributing of Shreveport
Frymaster
General Electric
Greater Shreveport Chamber of Commerce
Holmes Honda
International Paper
Ivan Smith Furniture
JW Operating
Kansas City Southern Railroad
Keller Williams Realty
Louisiana Department of Environmental Quality
Louisiana Public Service Commission
Libbey Glass
LSU-Shreveport
Metropolitan Planning Commission of Shreveport/Caddo Parish
Millen Oil
MBI
North Louisiana Economic Partnership
Northwest Louisiana Council of Governments
Port of Caddo-Bossier

Pratt Industries
Red River Watershed Management
Ryder Trucks
Shreveport Fire Department
Shreveport Transit Management (SPORTAN)
Southern University – Shreveport Bossier
Tango Transport
U. S. Veterans Administration

APPENDIX E



DR. REDDY'S

Dr. Reddy's Laboratories Louisiana, LLC

STANDARD OPERATING PROCEDURE	Number: SE-OP-041
	Page 1 of 3
TITLE: Ozone Action Program	Effective Date: 10/26/12
	Supersedes: 11/26/10

PURPOSE

The Ozone Action Program for Dr. Reddy's is designed and intended to aid in the voluntary reduction of pollutants linked to the formation of ground level ozone. The intent is not only to make the air safer to breath, but also to prevent the area from becoming a "non-attainment" area for ozone.

SCOPE

Applies to Dr. Reddy's Laboratories in Shreveport, LA.

DEFINITIONS

1. Ozone – A gas composed of three atoms of oxygen. Ozone occurs both in the Earth's upper atmosphere and at ground level. Ozone can be good or bad, depending on where it is found.
2. Stratospheric Ozone – occurs naturally in the upper atmosphere, 6 to 30 miles above the Earth's surface, where it forms a protective layer that shields us from the sun's harmful ultraviolet rays.
3. Ground Level Ozone – In the Earth's lower atmosphere, near ground level, ozone is formed when pollutants (NOx and VOC) emitted by cars and other internal combustion engines; power plants, industrial boilers, refineries, chemical plants and other sources chemically react in the presence of sunlight. Ozone at ground level is considered a harmful air pollutant and is sometimes referred to as smog.
4. National Ambient Air Quality Standard (NAAQS) – Limits set for individual pollutants to protect public health.
5. Nonattainment – means that the ambient air quality in an area does not meet the NAAQS.

RESPONSIBILITIES

Administration

Maintenance

Approvers	Signatures	Date
Safety, Health and Environmental	Signatures on File	
Maintenance/Engineering		
Site Director, Shreveport		

TITLE: Ozone Action Program	Number: SE-OP-041
	Effective Date: 10/26/12
	Page: 2 of 3

GENERAL INFORMATION

1. High levels of ozone can affect lung function and irritate the respiratory system in sensitive populations like children and the elderly. It can worsen chronic health conditions like bronchitis, emphysema and asthma.
2. Ozone pollution is a concern during the summer months when the weather conditions needed to form it – excessive sunlight, hot temperatures – normally occur. Although these precursors often originate in urban areas, winds can carry NOx hundreds of miles, causing ozone formation to occur in less populated regions as well.
3. For ozone the NAAQS limit is 0.075 parts per million for any 8 hour average. This level is considered protective of the health of "sensitive" populations such as asthmatics, children and the elderly.
4. Shreveport is currently considered borderline attainment for ozone. If an area falls into "non-attainment", controls on emissions must be increased and emissions reduced to protect public health.
5. Possible consequences of being designated a non-attainment area may include loss of industry and economic development in and around the area, loss of federal highway and transit funding, technical and formula changes to consumer products such as paint and greater oversight by EPA.
6. Industry in non-attainment areas will be affected by additional restrictive permitting requirements.

PROCEDURE

1. The site SH&E Manager will act as the primary Ozone Action Program Coordinator.
2. The site Operations Support Manager will act as the secondary Ozone Action Program Coordinator.
3. Ozone Action Program Coordinators will maintain registration with the Louisiana Department of Environmental Quality to receive notices and alerts of Ozone Action Days forecasted.
4. Upon notice of a forecasted Ozone Action Day the coordinator will:
 - a. Disseminate the notice to the site via e-mail and/or postings advising actions that can be taken by individuals to reduce emissions for the action day:
 - i. Reduced driving, using more fuel efficient vehicles, carpooling, public transportation.
 - ii. Avoiding fueling or waiting until the evening after the action day.
 - iii. Avoiding use of small gasoline engines (mowing, lawn maintenance, etc.)
 - iv. Avoiding painting, solvent cleaning, use of charcoal lighter fluid, etc.
 - b. Postpone site activities that contribute to ozone formation:
 - i. Maintenance of diesel fire pump that involve its operation or fueling.
 - ii. Outside maintenance activities involving gasoline or diesel engines (lawn maintenance, pressure washing, etc.)
 - iii. Solvent painting or cleaning inside or outside the facility.
5. The site SH&E Manager will provide training for plant employees at the beginning of each ozone season. The training will include the reasoning behind the program, the photochemical reaction that forms ozone, the hazards of ozone and the steps to take to reduce its formation.

Dr. Reddy's Laboratories Louisiana, LLC

	Number: SE-OP-041
TITLE: Ozone Action Program	Effective Date: 10/26/12
	Page: 3 of 3

CHANGE HISTORY

VERSION
11/26/10
New

SECTION
All
All

CHANGE
Biennial Review
SE-OP-041 – New SOP.

APPENDIX F

From: "Jean Kelly (DEQ)" <Jean.Kelly@LA.GOV>
To: "Jean Kelly (DEQ)" <Jean.Kelly@LA.GOV>
Date: 3/19/2013 9:06 AM
Subject: DEQ and Shreveport-Bossier Officials seeking input on ozone reductions strategies

For Immediate release:
March 19, 2013

Contact: Jean Kelly
Telephone: 225-219-3966

DEQ and Shreveport-Bossier Officials seeking input on ozone reductions strategies

BATON ROUGE - The Louisiana Department of Environmental Quality and the mayors of the cities of Shreveport and Bossier City are seeking input from the public on air quality strategies to reduce ozone formation and maintain attainment with the national standards.

DEQ has created a statewide survey that allows the public to make suggestions on how improve air quality in their own geographic are. The link to the survey is <http://www.surveymonkey.com/s/cleanairforlouisiana>.

Data collected from the survey will be shared with the regional air quality workgroup that is being lead by representatives of the two cities as well as other regional planning staff.

The Shreveport-Bossier Metropolitan Statistical Area (MSA) comprised of Caddo, Bossier and Desoto Parishes, currently meets the National Ambient Air Quality Standard for the pollutant ozone. However, the area is close to becoming nonattainment and has joined the Environmental Protection Agency's Advance Program to take measures to reduce ozone pollution.

The Shreveport-Bossier area is affected by a number of emissions sources that include rail and airport equipment, as well as industrial sources, but there are also areas that residents and citizens can exert some control. Nonroad emissions, which comprise 25 percent of the nitrogen oxide emissions and 23 percent of the volatile organic compound emissions in the area, are also emitted by lawn and garden equipment, four wheelers, boats and other off road vehicles. On road emissions sources represent 46% of nitrogen oxide emissions and 29 percent of volatile organic compound emissions come from vehicles driven on highways, and can be more controlled when everyone combines errands, carpools and does not idle. Nitrogen oxides and volatile organic compounds react in the presence of sunlight to form ozone, so by reducing the amounts of these emissions, we can impact how much ozone might be produced.

DEQ is asking residents and the public in the affected parishes to make their suggestions, via the survey, on how to help the Shreveport-Bossier area reduce ozone forming emissions.

For more information on the Ozone Advance Program and air quality, go to www.deq.louisiana.gov/ozoneadvance or at the EPA website: <http://www.epa.gov/ozoneadvance>.

-30-

Jean Lockwood Kelly
Public Information Officer
Louisiana Department of Environmental Quality
225-219-3966
jean.kelly@la.gov

APPENDIX G

Property taxes now top money for DPSB

Proposed 2013-14 budget reflects \$8.7 million reduction

By Vickie Welborn
vwelborn@shreveporttimes.com

MANSFIELD — Property taxes have surpassed sales taxes as the largest source of income for the DeSoto Parish School District.

In the 2013-14 proposed budget, property taxes are estimated to contribute in excess of \$38 million, compared to approximately \$23 million in sales taxes. That's a noticeable shift from the Haynesville Shale years when sales taxes musuroomed to bring in the most money. Three years ago, sales tax revenue topped \$73 million.

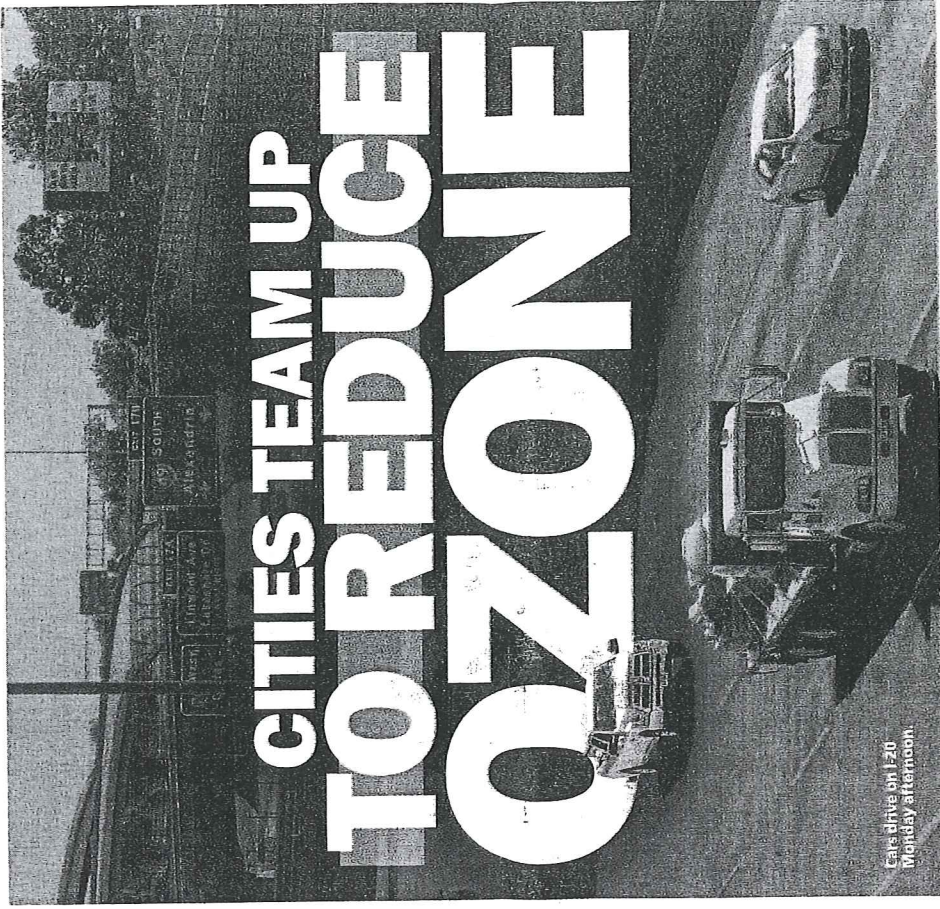
At the time, the parish was buzzing with natural gas development activity, including the influx of dozens of drilling rigs that were directly tied to the historic bump up in sales tax collections. But even though the development is stagnant, the parish continues to benefit on the property tax side because of the assessed value of the improvements it created.

For example, for the 2012-13 school year, taxable property was valued at \$432 million, pumping in \$26.5 million for general school operations. The DeSoto Parish tax assessor this year has placed the parish's overall value at \$655 million.

While that means almost \$12 mil-

See DESOTO, Page 4

ENVIRONMENT AND AIR QUALITY



SHREVEPORT AND BOSSIER CITY CRAFT STRATEGY TO CUT EMISSIONS

FIND IT ONLINE

Watch Shreveport Environmental Services Manager Wes Wyche talk about ozone reduction efforts of the city at shreveporttimes.com

Michele Marcotte
mmarcotte@shreveporttimes.com

Waiting to pump gas or mow your lawn until evening this summer may benefit your wallet in coming years.



Shreveport-Bossier City are close to exceeding federal ozone standards which tightened to 75 parts per billion in 2008, from 80 parts per billion in 1997. The 2008 standard took effect last year. Ozone is a pollutant formed when vehicle emissions, power plant emissions or vegetative decay react with oxygen and sunlight.

Shreveport Environmental Services Manager Wes Wyche said. It is one of six pollutants the Environmental Protection Agency measures to determine air quality. Areas that exceed federal ozone standards — more expensive gasoline with fewer pollutants and require a longer, and often more expensive, vehicle inspections, he said. In addition, these areas have stricter emission requirements for businesses, which can

See OZONE, Page 7

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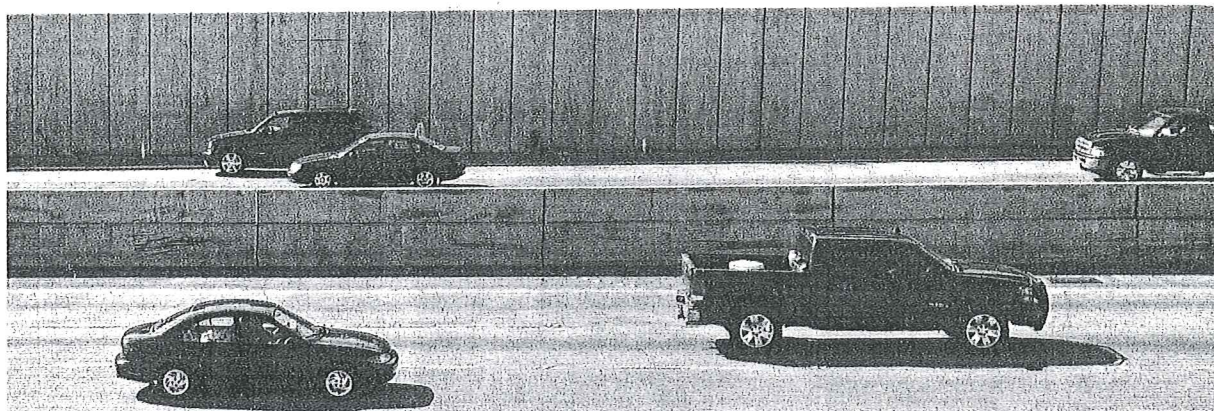
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\$1000 cash rebate, plus \$1000 cash rebate

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Each area of the state has different factors contributing to its ozone level. Lafayette experiences more vehicle emissions while **SHREVEPORT IS A MIX OF VEHICLE EMISSIONS AND INDUSTRIAL MANUFACTURING.**



Cars and trucks drive on Interstate 20 Monday afternoon. HENRIETTA WILDSMITH/THE TIMES

Ozone

Continued from Page 1

be a deterrent to companies looking to move to a new area, Wyche said.

Carpooling, utilizing public transportation and fueling vehicles in the evening all are ways residents can help to reduce vehicle emissions, which in turn lower ozone.

Local governments on both sides of the Red River are working individually and with the Louisiana Department of Environmental Quality to reduce ozone.

Both cities are concentrating fleets of city ve-

hicles to run on compressed natural gas, which emits less pollutants into air. Shreveport is transforming its fleets of garbage trucks and SporTran buses to run on natural gas while Bossier City implemented a policy that new vehicle purchases must be CNG vehicles.

"Every time you can take one diesel engine off of the road you're also eliminating those emissions," said Bossier City special projects coordinator Pam Glorioso. "Hopefully our ozone initiatives show that what we've done between Bossier and Shreveport will be enough to demonstrate to (Louisiana De-

partment of Environmental Quality) and EPA that we remain in compliance."

Both cities also have jumped on board with the Ozone Advance program, an EPA program designed to help areas stay in compliance with ozone level standards by putting reduction measures in place.

As DEQ pulls the program together in Shreveport, it and city officials hope to get public input on air quality strategies to reduce ozone, said Rodney Mallett, DEQ spokesman.

Residents can submit comments—which could range from measures such as minimizing the

SHREVEPORT OZONE LEVELS

2012: (1-hour) 0.08 (8-hour) 0.071
2011: (1-hour) 0.1 (8-hour) 0.085
2010: (1-hour) 0.1 (8-hour) 0.079
Standard: 0.12 ppm (1-hour), 0.075 ppm (8-hour)

Source: Environmental Protection Agency Air Quality Statistics Report

idle time of school buses to switching out diesel vehicle fleets — on a survey DEQ created. The survey can be found at surveymonkey.com.

Mallett said the program had success in Baton Rouge, which has an abundance of industrial manufacturing that contributes to its ozone levels.

Baton Rouge was out of compliance with the

federal ozone level between April 2004 and October 2010, said Gilberto Cuadra, an environmental scientist with DEQ. It remained in compliance until the new standard took effect last year.

Mallett said each area of the state has different factors contributing to its ozone level. Lafayette experiences more vehicle emissions while

Shreveport is a mix of vehicle emissions and industrial manufacturing, he said.

That is one reason DEQ seeks community input on reduction strategies before forming a plan to reduce ozone pollution, he said.

Wyche said that plan will be submitted to EPA this summer along with the voluntary actions to reduce emissions being taken in the area.

He said one of the benefits of participating in the program is it allows the EPA to consider Shreveport-Bossier City's efforts to reduce ozone if the ozone level falls below the standard during an assessment.

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APPENDIX H

	Number of CNG Vehicles	Type of CNG Vehicles	Future CNG purchases
SPORTVAN	14	Bus	under consideration
Shreveport Public Works (garbage trucks)	3	Para Transit Vans	under consideration, pending funding
Bossier City	19	Garbage trucks	19 Tahoes
	45	Tahoes	
	30	Pick up Truck	
	1	Sweeper	
	6	dump trucks	
	4	Trans Vans	
Caddo Parish (sheriffs office)	9	Chevy Impala (bi fuels)	
	12	Trucks	under consideration
Centerpoint	2	Cars	yes; number TBD
Chesapeake	184	Light duty SUV	
	4	Light trucks	under consideration
DDA/Shrevepark	3	Delivery trucks	7 coming in next 2 wks
Ivan Smith	5	Tractors	under consideration
Eagle Distributing	23	Trucks	not sure
Time-It Lube	3	bi fuel trucks	1 to 5
JW Operating	4		
Exco			
Encana			
BHP Billiton	71	Trucks converted	under consideration
AT&T			
Coldwell Banker	2	Trucks/delivery	Possibly 1 in next 5 years
	444		

APPENDIX I

The Louisiana Department of Environmental Quality hired ENVIRON Corporation to prepare a modeling study to develop the photochemical modeling and analysis tools and related databases needed to reliably simulate the complex interplay between meteorology, emissions, and ambient photochemistry during 8-hour ozone exceedance episodes in the Baton Rouge and/or other areas, to project those conditions to a future attainment year, and to evaluate emissions reduction strategies for inclusion in the 8-hour ozone SIP(s).

The objectives to be achieved through this contract in order to attain this goal are to assist in the preparation of an 8-hour ozone attainment modeling demonstration by:

- a) preparing Base-Case Modeling of Two Multi-Day Episode Periods;
- b) preparing Future Year and Attainment Demonstration Modeling;
- c) providing on-site training to the Department personnel on model input preparation, computer model operation, model results analysis and interpretation; and
- d) preparing a Technical Support Document.

Based on measured ozone data from 2008-2010, the EPA designated the five parishes comprising greater Baton Rouge (East Baton Rouge, West Baton Rouge, Livingston, Ascension, and Iberville) as a Marginal 8-hour ozone non-attainment area under the 2008 standard. The Department is the lead agency in the future development of the Baton Rouge 8-hour ozone SIP as well as other SIPs that may be required. EPA Region 6 in Dallas, Texas is the local regional EPA office that will take the lead in the approval process for any 8-hour ozone SIPs.

DEQ's contractor will provide these services by August 31, 2013, following the most current federal rules and regulations and EPA guidelines:

- a) Development of a modeling protocol following the requirements outlined in EPA modeling guidance.
- b) Identifying candidate modeling episodes from the 8-hour ozone designation period.
- c) Develop meteorological fields for the chosen episodes using the WRF meteorological model.
- d) Develop base-year and projected future-year model-ready emission inventories for the chosen episodes.
- e) Develop On-road mobile source emissions using EPA MOVES emission factor model in combination with locally specific activity data.
- f) Develop Non-road mobile source emissions using MOVES (if its non-road capability is available in time for this project) or alternatively the EPA NONROAD model.
- g) Develop inputs for the CAMx photochemical model for the chosen episodes.
- h) Apply the CAMx photochemical model for the chosen episodes to develop a base year performance assessment.
- i) Run CAMx for the future attainment year for episodes for which photochemical modeling has been determined to perform well. Calculate projected future year 8-hour ozone design values using the EPA MATS tool following EPA modeling guidance.
- j) Develop a Technical Support Document that describes the approach to develop model inputs, model applications, performance evaluation, sensitivity/diagnostic and probing tool runs, and results of future year scenarios. Include discussion of corroborative modeling analyses that support the conclusions and recommendations.

As of July 10, 2013, the model performance is the best that the area has ever encountered. This is the also the case for the modeled urban areas of Shreveport, Lake Charles and New Orleans. Upon completion of this project, DEQ will continue to assist local Advance Program participants with running additional analyses specific to their geographic area to help each area focus its resources on appropriate emissions reductions strategies.

Other Activities:

During May 2013, DEQ teamed with the Advance participants around the state to promote Air Quality Awareness Month in Louisiana - as declared by proclamation of Governor Jindal. The focus of radio, television, and printed media interviews was on increasing public involvement and letting citizens know things they can do to improve their air quality and their understanding of the air quality data that we make available. Here is a summary of most of the events DEQ is aware of:

April 12 – 9:30 a.m. – Michael Vince – Taping Around Town Show with Scott Rogers
April 23 – 107.3 FM – Interview 9:05 a.m. Brian Haldane – Michael Vince
April 2012 – Posted article from Brian Haldane in the Louisiana Daily paper
April 24 –KNOE interview Michael Vince at Ozone Advance presentation in Monroe
April 24 –KTVE/KARD interview Michael Vince at the Meeting 10 a.m.
April 25 – Houma – Thibodaux – Houma Courier – Tri Parish News - interviews
April 28 – 7:30 a.m. Lauren Stuart – WAFB Weekend Show
April 29 – 5:30 a.m. – interview on AQ – WBRZ Baton Rouge – Michael Vince – John Pastorek
April 29 – Interview – 6:39 a.m. – WJBO Radio, Baton Rouge - Michael Vince
April 29 – Press Release on Air Quality Awareness month 9 a.m.
April 29 – DEQ PRESS CONFERENCE – 10 a.m. to 10:30 a.m.
April 29 – 6:40 am – KTVE/KARD – Monroe – Tommy Perryman
April 29 – 11 a.m. to 11:30 a.m. – Radio interview – ClearChannel – Ray Romero – Michael Vince
April 30 – 6:15 a.m. – Brian Fontenot and Grant Bush - IMCAL– KPLC – Lake Charles – Sunrise Show
April 30 – 6:15 a.m. – KTAL – Shreveport – Tommy Perryman and Wes Wyche
April 30 – 9 a.m. – Jim Engster Show – Michael Vince
April 30 - 8:37 a.m. - KPEL radio interview Lafayette – Michael Vince
April 30 – 9:30 a.m. – Interview with La Network – Michael Vince
May 2 – 7:15 a.m. Radio interview KEEL Shreveport – Michael Vince
May 2 – KATC Lafayette – 6 a.m. – Brian Fontenot and ??? Good Morning Acadiana
May 8 – Taping Louisiana Lagniappe – 9:30 a.m. WVLA/WGMB – Michael Vince

DEQ has developed and expects to deploy a number of radio announcements before Fall 2013 that are designed to pique public interest in air quality and promote local involvement that would include the Advance Program.

DEQ has developed and is in the process of purchasing a number of promotional items that can be used at meetings around the state to promote air quality improvements. These are geared towards participation in the Advance Program, EnviroFlash, and mobile source voluntary emission reduction ideas. DEQ will share these items with the Advance Participants and make the templates available for re-ordering locally.