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## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

March 25, 2008

Jennifer Mouton  
Administrator, Air Quality Assessment Division  
Louisiana Department of Environment Quality  
P.O. Box 4314  
Baton Rouge, LA 70821-4314

Dear Ms. Mouton:

The purpose of this letter is to share with Louisiana the information that the Texas Commission on Environmental Quality (TCEQ) has developed for Texas on emissions that modeling and analysis indicate affect the Class I area in your state. The TCEQ also requests confirmation from you that Texas' projected emissions reductions will be adequate to meet Texas' apportioned part of the reductions necessary for your state to meet its reasonable progress goal for its Class I area.

As you know, under the Regional Haze Rule, 40 Code of Federal Regulations §51.308, a state must consult with neighboring states on emission strategies and reasonable progress goals for emissions that may be reasonably anticipated to contribute to visibility impairment in Class I areas in those states. This letter is intended to be the culmination of our consultation process for this initial Regional Haze state implementation plan (SIP) submittal.

The information in this letter regarding emissions and probable impacts was developed as part of the Central Regional Air Planning Association (CENRAP) planning process. The TCEQ has been involved in the CENRAP since its inception in 1999. The CENRAP's evaluation of regional haze sources in the central states and beyond has been invaluable in the member states' combined effort to determine the impacts of regional haze on Class I areas in the region and to assess the effectiveness of future control efforts. As contemplated in the Regional Haze Rule, regional planning organizations like the CENRAP are the vehicle through which states agree on regional haze impacts and emissions reduction apportionment obligations. We have also appreciated Louisiana's input on the development of our SIP revision during our past consultation conferences with the CENRAP states and federal land managers.

As described in our proposed Regional Haze SIP revision, the TCEQ provided the CENRAP emissions inventory information for all source categories in Texas. The CENRAP conducted Particulate Matter Source Apportionment Technology (PSAT) modeling to determine the contribution from each source area to visibility impairment at the Class I area in the region. These results are enclosed for Louisiana's only Class I area, Breton Wilderness Area. The TCEQ participated fully in the analysis of this data, base period visibility impairment, natural visibility condition estimates, and 2018 projections based on current and anticipated future state and federal controls. The PSAT modeling indicates that the probable impact of Texas sources will be reduced by 2018 in the Breton Wilderness Areas due to the expected emissions reductions from current and planned controls.

The CENRAP developed areas of influence for each Class I area in the CENRAP states. For reference purposes, the enclosed map shows the portions of Texas that are in the first and second order sulfate and nitrate areas of influence for the Breton Wilderness Area. The sulfur dioxide and nitrogen oxide sources shown on the map are Texas sources we have identified as high priority due to the fact that they have an emissions over distance equal to or greater than five ( $q/d \geq 5$ ) for one or more Class I areas. We have also included a table of sources of particular interest to Breton due to their emissions and their positions within the area of influence.

As required under the Regional Haze Rule, a review of Texas sources and the impact of emissions on regional haze will be conducted for all of the five-year progress reports and 10-year SIP revisions in order to determine the efficacy of current controls.

The TCEQ is requesting Louisiana's concurrence on this assessment and a verification that your state is not depending on any additional reductions from Texas sources in order to meet your reasonable progress goal(s). So that we may prepare and submit our Regional Haze SIP revision to the United States Environmental Protection Agency by this summer, we would appreciate a response within 30 days. If you have any questions or comments on this letter or wish to set up a time to consult further, please contact Margaret Earnest at [mearnest@tceq.state.tx.us](mailto:mearnest@tceq.state.tx.us) or 512-239-4581.

Sincerely,

Susana M. Hildebrand, P.E.  
Air Quality Division Director

SMH/ME/ts

Enclosures

cc: Greg Nudd, TCEQ  
Margaret Earnest, TCEQ  
Vivian Aucoin, LDEQ

**Measured 2002 and Projected 2018 Visibility Impacts on the  
Breton Wilderness Area in Louisiana  
Including the Impact of Texas' Emissions**

The following table shows the 2002 measured visibility impacts and the 2018 projected visibility impacts from all source areas on one Class I area in Louisiana and the impacts apportioned to be from Texas. The associated figures show the apportioned impacts from all source areas that the modeling separated, including three areas of Texas.

CENRAP produced these results using particulate matter source apportionment technology (PSAT) modeling and relative response factors according to EPA regional haze modeling guidance. The data are from the August 27, 2007, version of the PSAT tool that Environ produced for CENRAP. The database file is available from the CENRAP web site at <http://cenrap.org/projects.asp> under the listing "27 Aug 2007 Updated CENRAP PSAT Visualization Tool - 36 MB zip."

**Table 1: Texas' apportioned contribution to the measured 2002 and projected 2018 total visibility extinction at Breton Wilderness Area**

Particulate Matter Constituent	2002 Impacts at Breton Wilderness Area (inverse megameters)		2018 Impacts at Breton Wilderness Area (inverse megameters)	
	Texas Total	Total, All Source Areas	Texas Total	Total, All Source Areas
Sulfate	3.55	96.83	2.66	68.63
Nitrate	0.15	8.29	0.16	8.20
Primary Organic Aerosol	0.12	4.71	0.11	4.37
Elemental Carbon	0.14	5.40	0.06	3.92
Fine Soil	0.05	0.95	0.05	1.16
Coarse Mass	0.19	3.70	0.18	3.95
Secondary Organic Aerosol, Anthropogenic	not available <sup>1</sup>	1.63	not available <sup>1</sup>	1.38
Secondary Organic Aerosol, Biogenic	not available <sup>1</sup>	2.48	not available <sup>1</sup>	2.46
Total	4.20	123.99	3.23	94.06

<sup>1</sup> The CENRAP PSAT modeling did not apportion either the anthropogenic or the biogenic secondary organic aerosol (SOA). The reasons are (1) that sulfate and nitrate are generally the main causes of visibility impairment resulting from human activity and (2) that tracking the multiple volatile organic compound constituents and reaction products necessary to apportion SOA would have extended the modeling run times far beyond the time that was available for the modeling.



**Units Inside the Breton Isle Area of Influence**

Site	SIC	Federal ID			Emissions (tpy)			Distance to Breton Isle (km)	Notes
		cty	plt	pt	NOx 2002	NOx 2018 base	Change from 2002		
San Miguel Electric	4911	13	7	1	6,702	4,179	-2,523	941	
LCRA - Fayette	4911	149	5	8	6,911	2,674	-4,237	761	
LCRA - Fayette	4911	149	5	7	6,130	2,290	-3,840	761	
LCRA - Fayette	4911	149	5	16	6,077	2,764	-3,313	760	
NRG - Parish	4911	157	5	6	4,230	775	-3,455	656	
NRG - Parish	4911	157	5	7	3,832	812	-3,020	656	
NRG - Parish	4911	157	5	14	3,782	974	-2,808	656	
TXU - Big Brown	4911	161	2	10	3,809	3,725	-84	719	
AES Deepwater	4911	201	405	1	3,575	1,578	-1,997	615	
SWEPSCO - Pirky	4911	203	22	1	4,953	4,893	-60	606	
TXU - Decordova	4911	221	1	5	5,631	1,190	-4,441	886	
NRG - Limestone	4911	293	10	2	7,987	5,703	-2,284	727	
NRG - Limestone	4911	293	10	3	5,474	5,117	-357	727	
TXU - Sandow	4911	331	5	15	7,670	5,509	-2,161	791	
TXU - Martin Lake	4911	401	11	6	9,480	8,516	-964	604	
TXU - Martin Lake	4911	401	11	7	4,503	5,251	748	604	
TXU - Martin Lake	4911	401	11	8	4,481	5,105	624	604	
SWEPSCO - Welsh	4911	449	5	11	6,716	1,526	-5,190	668	
SWEPSCO - Welsh	4911	449	5	12	3,355	3,673	318	668	
SWEPSCO - Welsh	4911	449	5	10	3,245	923	-2,322	668	
TXU - Monticello	4911	449	3	9	6,224	4,553	-1,671	685	
TXU - Monticello	4911	449	3	10	5,593	5,834	241	685	
TXU - Monticello	4911	449	3	7	4,102	3,041	-1,061	685	
Oklunion	4911	487	10	2	8,711	6,253	-2,458	1,078	
<b>Total</b>					<b>133,172</b>	<b>86,858</b>	<b>-46,314</b>		

**Units Inside the Breton Isle Area of Influence**

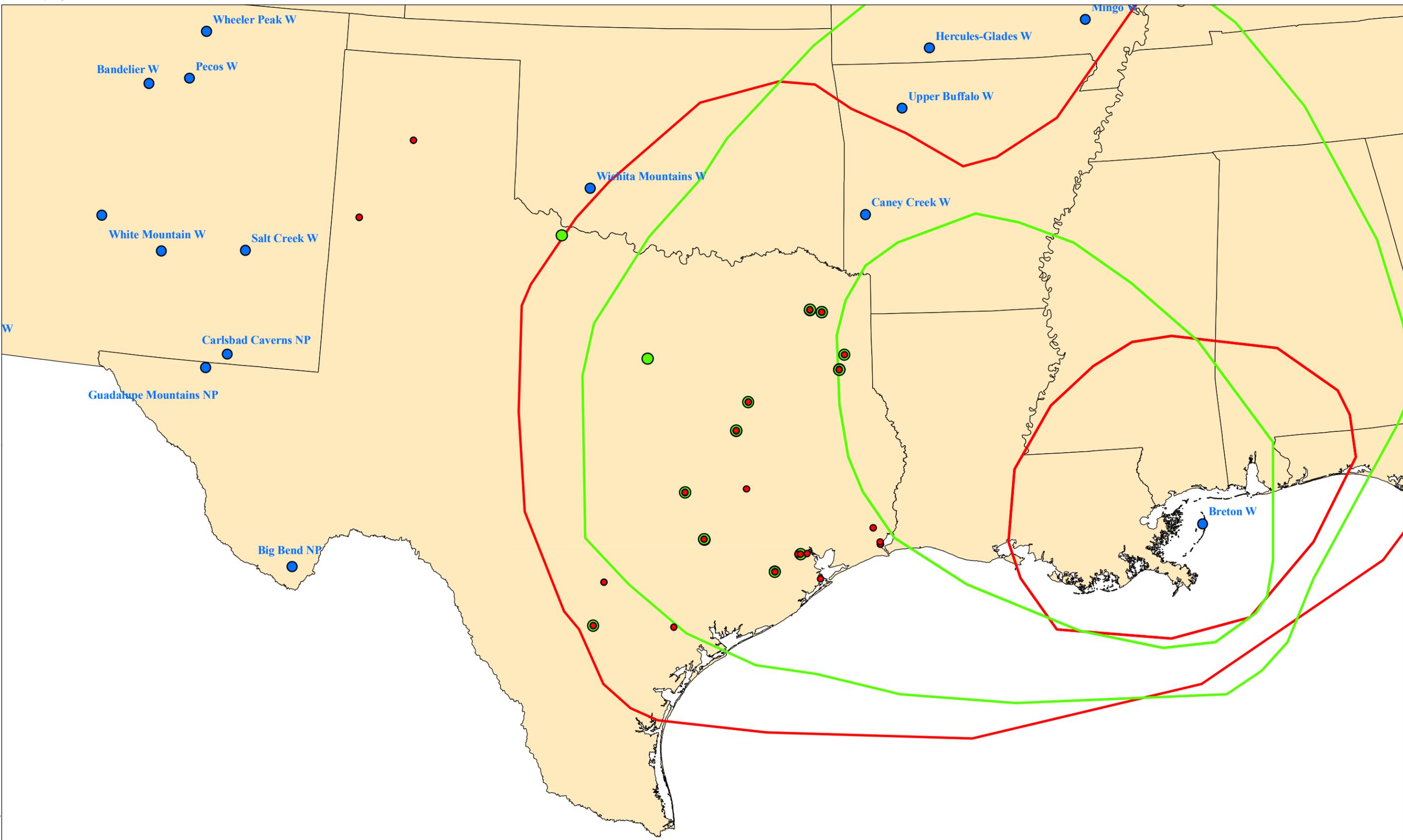
Site	SIC	Federal ID			Emissions (tpy)			Distance to Breton Isle (km)	Notes
		cty	plt	pt	SO2 2002	SO2 2018 base	Change from 2002		
DCP MIDSTREAM	1321	3	10	72	2,374	3,038	665		
SAN MIGUEL POWER	4911	13	7	1	13,167	6,550	-6,617	941	
SOMMERS DEELY SRUCE	4911	29	63	4	9,983	10,836	853	917	
SOMMERS DEELY SRUCE	4911	29	63	2	11,531	10,836	-695	917	
SOMMERS DEELY SRUCE	4911	29	63	17	4,782	4,350	-432	917	
DCP GIDDINGS	4911	149	5	7	13,617	10,450	-3,167	761	
DCP GIDDINGS	4911	149	5	8	16,401	10,375	-6,026	761	
NRG - PARISH	4911	157	5	6	20,523	3,733	-16,790	656	
NRG - PARISH	4911	157	5	7	17,863	3,809	-14,054	656	
NRG - PARISH	4911	157	5	8	17,900	3,297	-14,603	656	
NRG - PARISH	4911	157	5	14	3,948	4,512	564	656	
TXU BIG BROWN	4911	161	2	10	43,413	23,641	-19,772	719	
TXU BIG BROWN	4911	161	2	11	34,448	23,142	-11,306	719	
BP TEXAS CITY	2911	167	1	274	3,599	47	-3,552	588	Refinery Consent Decree
COLETO CREEK	4911	175	2	1	14,289	16,096	1,808	820	
GIBBONS CREEK	4911	185	2	2	10,816	2,652	-8,164	698	
SHELL	2911	201	39	208	4,697	549	-4,148	605	Refinery Consent Decree
RHODIA	2819	201	37	11	5,097	7,005	1,908	619	
AEP DEEPWATER	4911	201	405	1	4,370	0	-4,370	615	error in IPM file
SWEPKO PIRKY	4911	203	22	1	19,476	19,478	2	606	
GREAT LAKES CARBON	2999	245	23	4	2,648	3,483	835	492	
GREAT LAKES CARBON	2999	245	23	6	3,123	4,107	984	492	
VALERO PORT ARTHUR	2911	245	4	133	3,221	3,765	544	493	In Refinery CD, but didn't get reductions in model
EXXONMOBIL BEAUMONT	2911	245	18	321	9,387	119	-9,267	502	Refinery Consent Decree
SWEPKO TOLK	4911	279	18	1	12,703	10,465	-2,238	1,376	
SWEPKO TOLK	4911	279	18	2	12,171	11,492	-679	1,376	
NRG LIMESTONE	4911	293	10	2	16,293	12,715	-3,578	727	
NRG LIMESTONE	4911	293	10	3	12,974	4,983	-7,991	727	
ALCOA	3334	331	1	10	16,120		-16,120	792	Shutdown, Not in 2018 file
ALCOA	3334	331	1	11	16,121		-16,121	792	Shutdown, Not in 2018 file
ALCOA	3334	331	1	12	15,938		-15,938	792	Shutdown, Not in 2018 file
TXU SANDOW	3334	331	5	15	23,305	8,409	-14,896	791	
ECHO CARBON BLACK	2895	361	8	19	1,859	3,354	1,495	468	
HARRINGTON	4911	375	22	4	9,197	7,891	-1,306	1,347	
HARRINGTON	4911	375	22	5	8,927	7,714	-1,213	1,347	
HARRINGTON	4911	375	22	7	8,844	7,104	-1,740	1,346	
MARTIN LAKE	4911	401	11	6	24,832	11,351	-13,481	604	
MARTIN LAKE	4911	401	11	7	22,538	11,984	-10,554	604	
MARTIN LAKE	4911	401	11	8	19,024	12,396	-6,628	604	
SWEPKO WELSH	4911	449	5	12	12,259	11,721	-538	668	
SWEPKO WELSH	4911	449	5	11	11,995	1,223	-10,772	668	
SWEPKO WELSH	4911	449	5	10	11,584	1,227	-10,357	668	
TXU MONTICELLO	4911	449	3	7	28,643	19,144	-9,499	685	
TXU MONTICELLO	4911	449	3	9	34,700	19,695	-15,005	685	
TXU MONTICELLO	4911	449	3	10	22,889	11,882	-11,007	685	
Total					633,587	350,621	-282,966		

# Class I Areas Relevant to CENRAP

## Breton

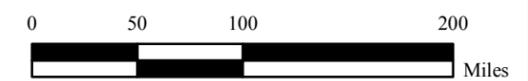


- Legend**
- SO2
  - NOx
  - Class I Areas
  - NO3 AOI
  - SO4 AOI



Source: NOx and SO2 2002 emission and coordinate data extracted from the State of Texas Air Reporting System (STARS) database. AOI obtained from Alpine Geophysics.

Disclaimer: This map was generated by the Emissions Assessment Section (EAS) of the Texas Commission on Environmental Quality. No claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information concerning this map contact Adam Bullock at (512) 239-5155 or the EAS at (512) 239-1773.



**Margaret Earnest - Contribution to visibility impairment to Breton**

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**From:** Vivian Aucoin <Vivian.Aucoin@LA.GOV>  
**To:** Margaret Earnest <mearnest@tceq.state.tx.us>, Jim Price <jprice@tceq.state.tx.us>  
**Date:** 11/29/2007 10:50 AM  
**Subject:** Contribution to visibility impairment to Breton  
**CC:** James Orgeron <James.Orgeron@LA.GOV>

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The Louisiana Department of Environmental Quality (LDEQ) has determined that emissions from the State of Texas do not contribute to visibility impairment at Breton Wilderness Class I Area in Louisiana. LDEQ will continue to monitor all state and federal rules and control measures and will include the necessary emission factors in future modeling.

LDEQ appreciates the Texas Commission on Environmental Quality's cooperation in preparing the Regional Haze State Implementation Plan for Breton. We look forward to working with you again on this project and any other that may require interstate consultation in the future.

Sincerely,

Vivian H. Aucoin  
Environmental Scientist Supervisor  
Office of Environmental Assessment, Planning Division  
P. O. Box 4314  
Baton Rouge, La. 70821-4314  
225-219-3575  
vivian.aucoin@la.gov