



Air Quality Summary—May 2011



Baton Rouge Area

OZONE

There were three days that exceeded the National Ambient Air Quality Standard (NAAQS) for ozone in the Baton Rouge area during the month of May 2011. See the table below for detailed information.

Ozone Action Days: May 6 and May 27 —Code Orange/USG

PM_{2.5}

There were no exceedances of the NAAQS for PM_{2.5} in the Baton Rouge area during the month of May 2011. Please see the chart on the next page for detailed information on PM_{2.5} levels throughout the state.

Other Areas of the State

OZONE

The following is a list of days that exceeded the NAAQS for ozone in areas of the state other than Baton Rouge during the month of May 2011:

New Orleans—3 days, 5/6/11, 5/7/11 and 5/27/11
Action Days: May 6 and May 27, Code Orange/USG

Lafayette—1 day, 5/6/11
No Action Days

Shreveport
Action Days: May 6, Code Orange/USG

PM_{2.5}

There were no exceedances of the NAAQS for PM_{2.5} in any area of the state during the month of May 2010. Please see the chart on the next page for detailed information on PM_{2.5} levels throughout the state.

Statewide 8-HR Ozone Readings Above 75 ppb - May 2011

DATE	AQI	8-HR OZONE Concentration (ppb)	MONITORING SITE
5/6/2011	132	88	Dutchtown
	116	82	Carville
	114	81	Convent
	104	77	Mereaux
	104	77	Thibodaux
	101	76	Lafayette

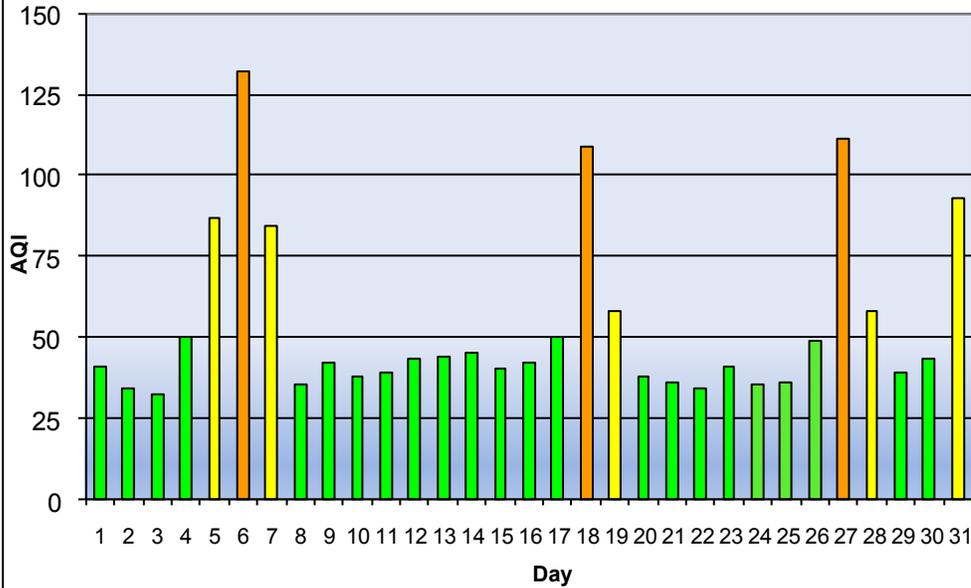
DATE	AQI	8-HR OZONE Concentration (ppb)	MONITORING SITE
5/7/2011	104	77	Madisonville
5/18/2011	109	79	New Roads
5/27/2011	119	83	Kenner
	111	80	Pride
	109	79	Bayou Plaquemine
	101	76	New Roads



Air Quality Summary—May 2011



**Baton Rouge Area Daily Maximum AQI For Ozone
MAY 2011**

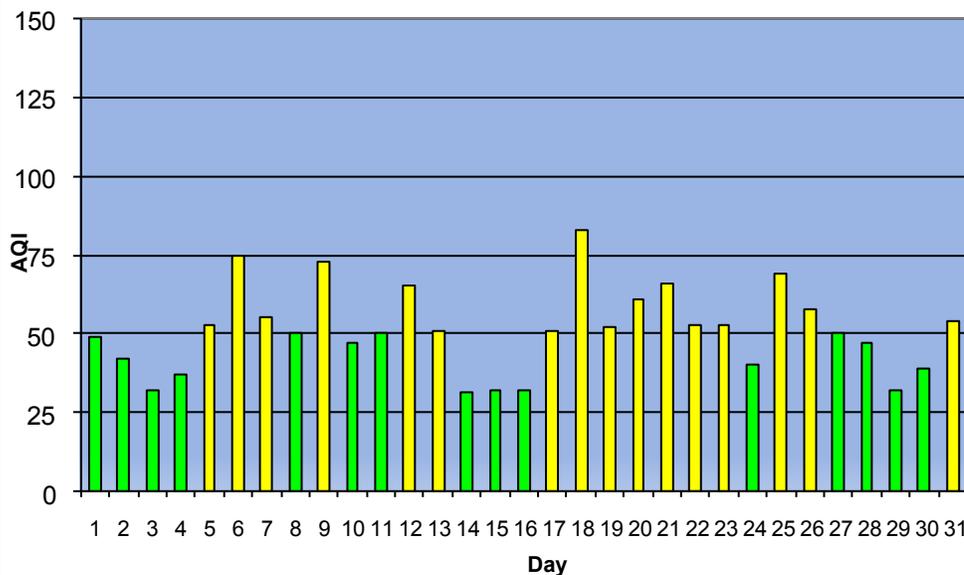


0-50	Good
51-100	Moderate
101-150	Unhealthy for Sensitive Groups
151-200	Unhealthy
201-300	Very Unhealthy

Statewide High PM_{2.5} 24-Hour Average Readings - MAY 2011

DAY	UG/m3	AQI	SITE
1	15.1	49	Lafayette
2	12.9	42	Kenner
3	10	32	Alexandria
4	11.4	37	Port Allen
5	16.3	53	Port Allen
6	25.1	75	Port Allen
7	17	55	Alexandria
8	15.3	50	Chalmette Vista
9	24.3	73	Chalmette Vista
10	14.5	47	Chalmette Vista
11	15.4	50	Port Allen
12	21	65	Port Allen
13	15.5	51	Chalmette Vista
14	9.6	31	Port Allen
15	10	32	Port Allen, Capitol
16	9.9	32	Port Allen
17	15.5	51	Port Allen
18	28.6	83	Port Allen
19	16.1	52	Port Allen
20	19.5	61	Port Allen
21	21.6	66	Chalmette Vista
22	16.3	53	Chalmette Vista
23	16.3	53	Chalmette Vista
24	12.2	40	Port Allen
25	22.9	69	Shreveport Airport
26	18.3	58	Madisonville
27	15.3	50	Chalmette Vista
28	14.4	47	Chalmette Vista
29	10	32	Alexandria
30	12	39	Alexandria
31	16.8	54	Port Allen

**Statewide Daily Maximum AQI For PM_{2.5}
MAY 2011**



Baton Rouge Climate Summary—May 2011

*Prepared by: Jay Grymes

(based on available preliminary data as of July 12, 2011)

May's monthly average temperature for Baton Rouge's Metro Airport was 75.1°F, 1.1° above the 30-year normal. This continued a 2011 trend of "warm" weather, with May being the fourth consecutive month with temperatures averaging above the norm.

It is interesting to note that each of the past four Mays have averaged more than 1° above the long-term May norm. Additionally, the last time that Baton Rouge had a cooler-than-normal May was in 1997! Such statistics often serve as fuel for global-warming debates.

Daily maximum temperatures at Metro AP during May 2011 reached 90° or above on 16 dates (far above the long-term average of 5.6 days), and includes a 12-day stretch extending from May 20-31. The highest reading during the month was 96°, recorded on the 31st, with a 95° reported on the previous day. Daily average temperatures were above-normal for each day during the run of 90° days that closed the month, but this run of very warm weather was offset in part by cooler-than-normal days during the first week of the month and again at mid-month.

Table 1: Average "daylight hours" sky conditions (to 12,000 ft) during May 2011, based on automated ASOS observations from Baton Rouge's Metro Airport.

Sky Condition: Sunrise to Sunset (Sky Coverage)	Clear to Mostly Sunny (0/10ths – 3/10ths)	Partly Cloudy / Partly Sunny (4/10ths – 6/10ths)	Mostly Cloudy to Cloudy (7/10ths – 10/10ths)
No. Days	21	8	2

Official sunrise-to-sunset periods during May, excluding 'Civil Twilight,' ranged from 13.4 hours (May 1) to 14.0 hours (May 31).

May 2011 rainfall was well-below normal for every site in the Baton Rouge metro area (Table 2), as not a single site managed to record even one inch for the month. Metro AP's May total of 0.59" was nearly 5" below the monthly mean, and every site with long-term May averages reported shortages of 4" to 5" or more for the month. It was so dry that May 2011 ranks as the fifth "driest" May since 1888 for Baton Rouge, and the "driest" May since 2003. In addition, May 2011 proved to be Metro AP's "driest" month since June 2009.

Based on the 22 complete sites included in Table 2, the regional average (unweighted) rainfall for May 2011 was 0.43" (with a median of 0.40").

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Table 2: May 2011 rainfall for selected rainfall reporting stations across the greater Baton Rouge metro area. (Data are preliminary and provided courtesy of the National Weather Service, the LSU Southern Regional Climate Center, the USGS, and the LSU AgCenter.)

Rainfall-Recording Site	Monthly Rainfall	Monthly DFN	No. Days ≥ 0.01"	No. Days ≥ 1.00"
BR - Metro AP	0.59"	-4.75"	3	0
<i>NWS Cooperative Network Sites</i>				
BR - Concord Estates	0.38"	-5.03"	5	0
BR - Sherwood Forest	0.51"	-4.85"	5	0
Denham Springs	0.46"	-4.85"	3	0
Gonzales	0.30"	-4.54"	3	0
Livingston	0.33"	-4.86"	3	0
New Roads	0.37" (i)	-4.98"	1	0
Oaknolia	0.38" (i)	-5.08"	1	0
Port Allen	0.22"	-4.79"	2	0
<i>USGS HydroWatch Selected Sites</i>				
Clinton (07377195)	0.88"	--	3	0
Zachary (07377750)	M	--	M	M
Comite nr. Comite (07378000)	M	--	M	M
Prairieville (07380102)	0.18"	--	3	0
Pt. Vincent (07380120) (0.1")	0.30"	--	--	0
French Settlement (07380200)	0.42"	--	4	0
<i>LSU AgCenter LAIS Automated Stations</i>				
LAIS - Ben Hur Farm	0.35"	--	4	0
LAIS - Burden Plantation	0.22"	--	3	0
LAIS - St. Gabriel Res Sta	0.24"	--	4	0
<i>CoCoRaHS Volunteer Observers</i>				
Old Jefferson 0.9 W (LA-EB-21)	M	--	M	M
Shenandoah 0.8 W (LA-EB-36)	0.28"	--	4	0
Monticello 3.0 ENE (LA-EB-19)	0.59"	--	2	0
Brownfields 5.8 NE (LA-EB-9)	0.59"	--	4	0
Baton Rouge 2.5 E (LA-EB-27)	0.33"	--	4	0
Baton Rouge 2.7 SW (LA-EB-2)	0.44"	--	4	0
Zachary 3.5 WNW (LA-EB-28)	0.89"	--	5	0
LSU Campus (LA-EB-33)	0.56"	--	4	0
WAFB-TV, Downtown BR	0.41"	--	3	0

DFN - Departure-from-Normal
M - Monthly Report Unavailable
"--" - Normals Not Available

(i) - Monthly Report May Be Incomplete
(e) - Estimated Value
(0.1") - 0.1" Resolution Only

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May 2011 rainday counts for the Baton Rouge metro area sites ranged from 2 to 5 days, with a group median of 4 raindays.

May reports from the Metro Airport ASOS weather platform included:

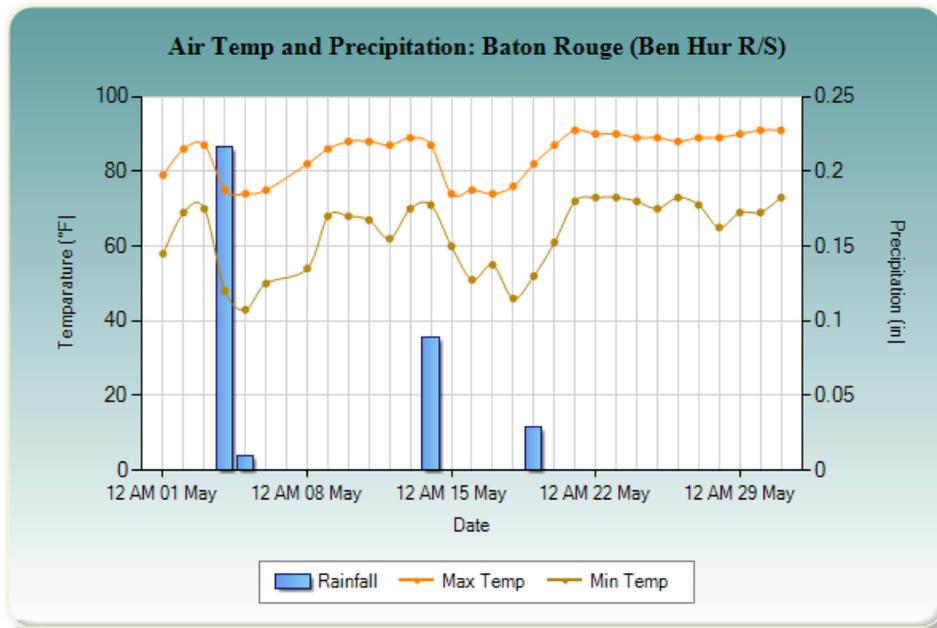
- only 2 days with thunder (May 29 & 30), compared to a monthly average of 6.2 days;
- 11 days with fog, including "dense" fog (visibility less than 1/4-mile) on May 10th; and
- notable smoke and/or haze on May 13th and 27th.

May 2011 winds recorded by the Metro Airport ASOS platform averaged 7.6 mph, essentially the equivalent of the 47-year May average of 7.5 mph. Daily wind speeds during May 2011 averaged below 5.0 mph on 6 dates, while exceeding 10.0 mph on 7 dates, including a 4-day run during May 22-25.

Drought Status:

The weekly **U.S. Drought Monitor** as of 7 June 2011 (Fig. 3) shows the entire state suffering some degree of drought, with virtually the entire Baton Rouge metro area rated as under "Extreme Drought" (D3). A prolonged run of warm-and-dry spring days has contributed to a steady decline in soil-moisture availability, with the dry soils acting as positive feedback and adding to the daytime heating.

Figure 1: May 2011 Daily Max/Min Temperatures and Precipitation as recorded by the LSU AgCenter/LAIS Weather Station located at LSU-Ben Hur Farm (Nicholson Drive). (Note: Data are unavailable for May 7th.)



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Figure 2: May 2011 Daily Solar Radiation and Max/Min Temperatures as recorded by the LSU AgCenter/LAIS Weather Station located at LSU-Ben Hur Farm.
(Note : Data are unavailable for May 7th.)

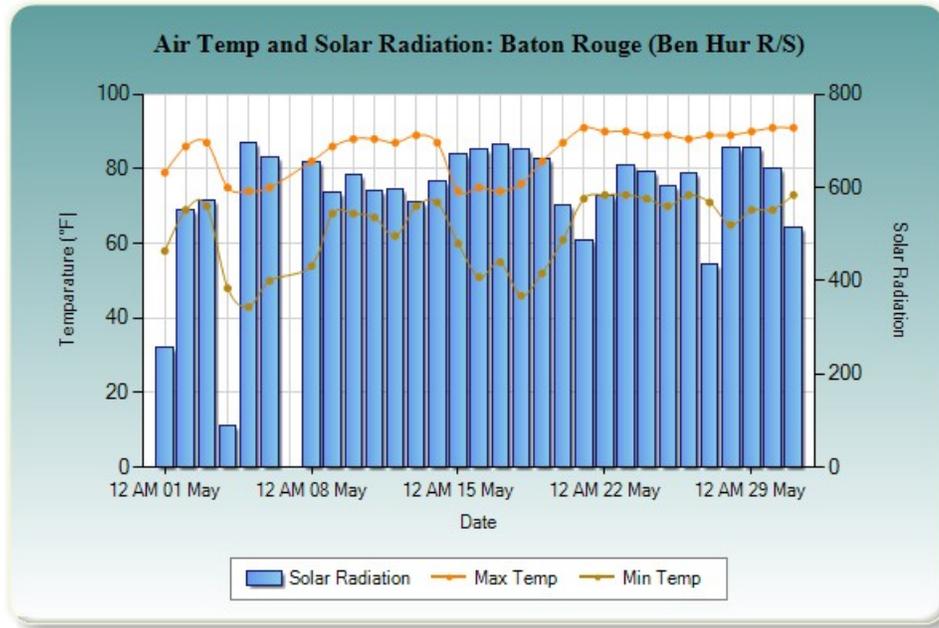
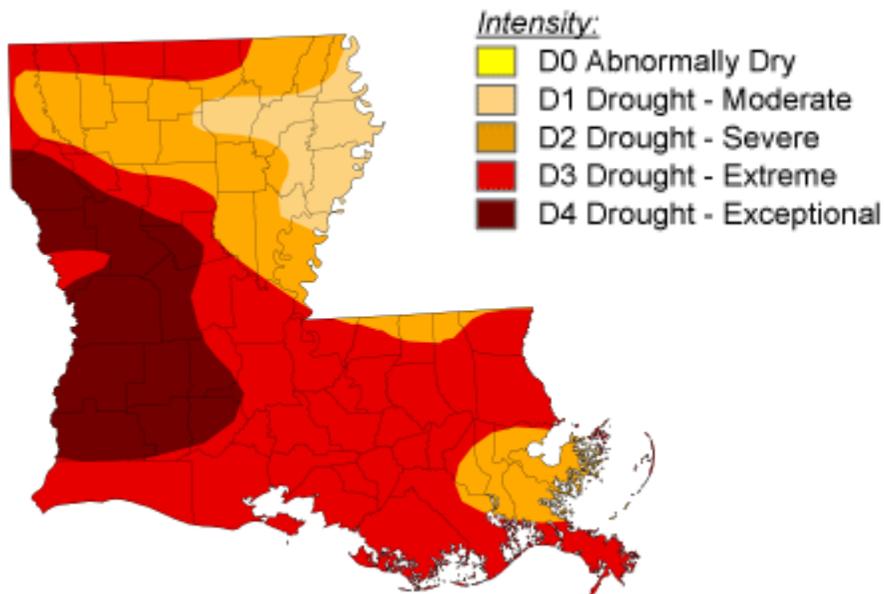


Figure 3: Weekly **U.S. Drought Monitor** depiction for 7 June 2011.
Source: <http://drought.unl.edu/DM/>



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Acknowledgements:

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- U.S. Drought Monitor (<http://drought.unl.edu/DM/>)
- NWS Climate Prediction Center (NWS/CPC)
- NWS Storm Prediction Center (NWS/SPC)
- NWS Hydrometeorological Prediction Center (NWS/HPC)
- NOAA/National Climatic Data Center (NCDC)
- USGS, Louisiana
- WAFB-TV (Ch. 9), Baton Rouge

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*Jay Grymes, LSU AgCenter Climatologist and WAFB Chief Meteorologist, provides the climatology portion of this report as a free service to DEQ and the citizens of Louisiana.