# **Quality of Air**

## for Baltimore Forecast Region, May 2006



Air Quality Index (AQI) 22 20 100 100 AQI)

25

0

2001

2002

2003



**Baltimore Forecast Region** and Monitors



### Number Days Above 100 AOI vs. Days ≥ 90 F at BWI (2006 Data)

2005

2004

Minimum

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
8-hr Ozone	0	0	0	0	3	n/a	3						
24-hr PM Fine	0	0	0	0	0	n/a	0						
Both Pollutants	0	0	0	0	3	n/a	3						
$Day \ge 90 F$	0	0	0	0	2	n/a	2						

The Baltimore forecast region has experienced about normal air quality conditions during the first three weeks of May 2006 with Good to Moderate AQI levels. However, the last week of May was unusually warm and sunny due to a strong high pressure over the Mid-Atlantic. This weather system had lead to the first widespread bad air quality episode across much of the Mid-Atlantic states where Unhealthy for Sensitive Groups or above on the AQI scale were observed. As always visit www.air-watch.net for the current air quality conditions and forecast or call the air quality hotline at 410-537-3247.

			Air Quality I	Index (AQI)					
	0-50 Good	51-100 Moderate	101-150 Unhealthy for SG*		201-300 Very Unhealthy	301-500 Hazardous			
Note:	"SG" denotes Sensitive G	MARYLAN	ND DEPARTMENT	OF THE ENVIR	ONMENT				
Data presented for 2006 is preliminary.		minary.	1800 Washington Boulevard   Baltimore, MD 21230 410-537-3000   1-800-633-6101						

# **Yuality of Air**

## for Baltimore Forecast Region, June 2006





**Baltimore Forecast Region** and Monitors



### Number Days Above 100 AQI vs. Days ≥ 90 F at BWI (2006 Data)

			-		-	-							
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
8-hr Ozone	0	0	0	0	3	5	n/a	n/a	n/a	n/a	n/a	n/a	8
24-hr PM Fine	0	0	0	0	0	0	n/a	n/a	n/a	n/a	n/a	n/a	0
Both Pollutants	0	0	0	0	3	5	n/a	n/a	n/a	n/a	n/a	n/a	8
$Day \ge 90 F$	0	0	0	0	2	6	n/a	n/a	n/a	n/a	n/a	n/a	8

June is considered the start of the summer season, with the summer solstice occurring on June 21st. The Baltimore forecast region observed 8-hour ozone AQI levels exceeding the EPA National Ambient Air Quality Standard (NAAQS) on five days. So how does the historical AQI data compare to this year thus far? Well the news is good! The AQI data thus far for 2006 shows a marked decrease when compared to the historical AQI data from 2001-2005. This decrease is due in part to local controls here in Maryland, controls in other upwind states which in turn will cause a decrease in transported ozone and ozone precursors into Maryland, and of course the weather. Speaking of the weather. June was slightly warmer than normal and rainfall was much more than normal with over seven inches of rain falling. Much of the rain fell during the last week of June. As always visit www.air-watch.net for the current air quality conditions and the three-day forecast or call the air quality hotline at 410-537-3247.

Air Quality Index (AQI)

	0-50 Good	51-100 Moderate	101-150 Unhealthy for SG*	151-200 Unhealthy	201-300 Very Unhealthy	301-500 Hazardous				
NT	MARYLAND DEPARTMENT OF THE ENVIRONMENT									
Note: "SG" denotes Sensitive Groups. Data presented for 2006 is preliminary.		ninary.	Washington Boulevard 410-537-3000   1-	Baltimore, MD .800-633-6101	21230		MDE			

# Quality of Air

## for Baltimore Forecast Region, July 2006



25 0

2001

# AQI Distribution



### Baltimore Forecast Region and Monitors



2002 2003 2004 2005 2006 Number Days Above 100 AOI vs. Days ≥ 90 F at BWI (2006 Data)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
8-hr Ozone	0	0	0	0	3	4	4	n/a	n/a	n/a	n/a	n/a	11
24-hr PM Fine	0	0	0	0	0	0	0	n/a	n/a	n/a	n/a	n/a	0
Both Pollutants1	0	0	0	0	3	4	4	n/a	n/a	n/a	n/a	n/a	11
$Day \ge 90 F$	0	0	0	0	2	6	18	n/a	n/a	n/a	n/a	n/a	26

In July the Baltimore Forecast Region was drier and warmer than normal, as was much of the country. Yet, the number of 8-hour ozone exceedance days through July was significantly lower when compared to previous years. Normally, the result of a hot day (90° F or higher) is a corresponding 8-hour ozone exceedance day (code Orange or higher). Past data proves this relationship. Between 1993 and 2001 (except 1995) there were more 8-hour ozone exceedance days than hot days. This trend reversed in 2002 and continues into the present, with there being more hot days than 8-hour ozone exceedance days. Thus far in 2006 there have been 26 hot days observed at BWI and 11 8-hour ozone exceedance days observed in the Baltimore Forecast Region. Why the dramatic improvement in air quality? This decrease in 8-hour ozone exceedance days might be due in part to pollutant controls installed here locally in Maryland and in other upwind states. This in turn decreases the amount ozone precursors emitted and the amount of ozone produced here locally and transported into Maryland from other areas. As always visit www.air-watch.net for the current air quality conditions and the three-day forecast or call the air quality hotline at 410-537-3247.

Air Quality Index (AQI) 51-100 201-300 301-500 0-50151-200 Good Moderate Very Unhealthy Hazardous Unhealthy MARYLAND DEPARTMENT OF THE ENVIRONMENT Note: 1Either one or both pollutants are UGS 1800 Washington Boulevard | Baltimore, MD 21230 or above. <sup>2</sup>Unhealthy for Sensitive Groups. MDE Data presented for 2006 is preliminary. 410-537-3000 | 1-800-633-6101

# Quality of Air

## for Baltimore Forecast Region, August 2006

Max imum

Av erage Minimum



**AQI Statistics for August** 



#### Baltimore Forecast Region and Monitors



### 2002 2003 2004 2005 2006 Number Days Above 100 AOI vs Days > 90 F at RWI (2006 Data)

	$(a_1, b_1, b_2, b_3, b_4, b_4, b_4, b_4, b_4, b_4, b_4, b_4$												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
8-hr Ozone	0	0	0	0	3	4	4	6	n/a	n/a	n/a	n/a	17
24-hr PM Fine	0	0	0	0	0	0	0	2	n/a	n/a	n/a	n/a	2
Both Pollutants <sup>1</sup>	0	0	0	0	3	4	4	7	n/a	n/a	n/a	n/a	18
$Day \ge 90 F$	0	0	0	0	2	6	18	13	n/a	n/a	n/a	n/a	39

In August, the Baltimore Forecast Region (BFR) observed hot and dry conditions. These weather conditions helped set the stage for AQI levels to reach Unhealthy for Sensitive Groups on seven days. The first air quality episode (Aug 1-2) was the result of extended warm weather running from the last week of July through the first week of August. Similar conditions lead to a 4-day episode during the 22<sup>nd</sup> through the 25<sup>th</sup> of August. The highest AQI day occurred on August 7<sup>th</sup> as direct result of westerly transport and local emissions. On the other hand, cool weather on the 30<sup>th</sup> followed by strong NE winds from Tropical Storm Ernesto on the 31<sup>st</sup> lead to Good air quality across the BFR for both days. How does air quality thus far in 2006 compare to historical data? Historical data (Jan-Jul, 2001-2005) showed Moderate AQI levels or above occurring on approximately 60% of the period. Thus far in 2006, the data shows Moderate AQI levels or above have occurred on 47% of the days, a decrease of 13% when compared to the historical data. The MDE Air Monitoring Program also established an ozone monitoring station in Baltimore City at Furley E.S. Recreation Center on August 21. MDE's motivation was to establish a monitor in a secure location within the city limits, while meeting EPA's siting criteria. Visit www.air-watch.net for the current air quality conditions and the three-day forecast or call the air quality hotline at 410-537-3247.

### Air Quality Index (AQI)

0-50 Good	5 Mo	1-100 oderate	101-150 UGS <sup>2</sup>	151-200 Unhealthy	201-300 Very Unhealthy	301-500 Hazardous		
lither one or both pollutants	are UGS	MARYLAN	ND DEPARTMENT	OF THE ENVIR	ONMENT			
21 Inhaolthy for Songitivo	Groups	1800 Washington Boulevard   Baltimore MD 21230						

or above. <sup>2</sup>Unhealthy for Sensitive Groups. Data presented for 2006 is preliminary.

225

200

Air Quality Index (AQI) <sup>20</sup> <sup>22</sup> <sup>20</sup> <sup>100</sup> <sup>100</sup>

25

Note: 1F

2001

410-537-3000 | 1-800-633-6101

