BAY AREA AIR POLLUTION SUMMARY — 2008

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MONITORING STATIONS	OZONE						CARBON MONOXIDE			NITROGEN DIOXIDE			SULFUR DIOXIDE			PM_{10}				$PM_{2.5}$				
	Max 1-Hr	Cal 1-Hr Days	Max 8-Hr	Nat 8-Hr Days	Cal Days	3-Yr Avg	Max 1-Hr	Max 8-Hr	Nat/Cal Days	Max 1-Hr	Ann Avg	Nat/Cal Days	Max 24-Hr	Ann Avg	Nat/Cal Days	Ann Avg	Max 24-Hr	Nat Days	Cal Days	Max 24-Hr	Nat Days	3-Yr Avg	Ann Avg	3-Yr Avg
North Counties	(ppb)		(ppb)				(ppm)			(ppb)			(ppb)			(µg/m³)				(µg/m³)			(µg/m³)	
Napa	107	1	77	2	2	61	3.2	1.8	0	64	10	0	-	-	-	21.6	50	0	0	-	-	-	-	-
San Rafael	85	0	69	0	0	50	1.8	1.1	0	56	13	0	-	-	-	18.6	41	0	0	-	-	-	-	-
Santa Rosa*	76	0	64	0	0	51	3.5	1.5	0	49	11	0	-	-	-	*	*	*	*	30.8	0	30.4	8.6	8.4
Vallejo*	109	1	75	0	3	60	2.7	2.3	0	67	10	0	4	1.2	0	*	*	*	*	50.0	7	36.4	9.9	9.8
Coast & Central Bay																								
Berkeley*	53	0	49	0	0	*	2.8	1.7	0	55	14	0	4	1.3	0	22.5	44	0	0	-	-	-	-	-
Oakland*	86	0	64	0	0	*	3.0	1.6	0	70	15	0	-	-	-	-	-	-	-	30.1	0	*	9.5	*
Richmond	-	-	-	-	-	-	-	-	-	-	-	-	8	1.5	0	-	-	-	-	-	-	-	-	-
San Francisco	82	0	66	0	0	46	5.7	2.3	0	62	16	0	5	1.5	0	22.0	41	0	0	29.4	0	26.3	9.8	9.4
San Pablo	84	0	63	0	0	50	2.5	1.3	0	67	12	0	4	1.4	0	20.9	44	0	0	-	-	-	-	-
Eastern District																								
Benicia*	123	2	86	3	7	*	1.0	0.8	0	38	7	0	5	1.6	0	18.1	52	0	1	-	-	-	-	-
Bethel Island	109	4	90	4	10	76	1.5	1.1	0	41	7	0	4	1.4	0	24.1	77	0	3	-	-	-	-	-
Concord	119	3	88	6	8	78	1.6	1.1	0	50	10	0	4	1.2	0	17.5	51	0	1	60.3	3	34.6	9.3	9.0
Crockett	-	-	-	-	-	-	-	-	-	-	-	-	13	2.1	0	-	-	-	-	-	-	-	-	-
Fairfield	116	2	90	1	2	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Livermore*	141	5	110	6	8	81	2.4	1.4	0	58	13	0	-	-	-	*	*	*	*	38.6	2	36.2	10.1	9.6
Martinez	-	-	-	-	-		-	-	-	-	-	-	6	1.7	0	-	-	-	-	-	-	-	-	-
Pittsburg*	106	1	83	1	2	71	2.8	1.4	0	56	10	0	6	1.8	0	*	*	*	*	-	-	-	-	-
South Central Bay																								
Fremont*	112	1	78	1	3	61	1.9	1.4	0	62	14	0	-	-	-	*	*	*	*	28.6	0	28.8	9.4	9.5
Hayward	114	1	86	1	3	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redwood City*	82	0	69	0	0	53	4.3	1.9	0	69	14	0	-	-	-	*	*	*	*	27.9	0	29.3	9.1	9.0
San Leandro	96	1	68	0	0	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Santa Clara Valley																								
Gilroy*	103	1	79	1	4	73	-	-	-	-	-	-	-	-	-	-	-	-	-	25.5	0	*	8.7	*
Los Gatos	122	2	97	2	6	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
San Jose Central	118	1	80	2	3	65	3.3	2.5	0	80	17	0	-	-	-	23.4	57	0	1	41.9	5	35.8	11.5	11.0
San Martin	123	2	77	2	5	76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunnyvale	93	0	76	1	2	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Bay Area Days over Standard		9		12	20				0			0			0			0	5		12			

*See NOTES on second page

2008 NOTES

The annual Bay Area Air Pollution Summary summarizes pollutant concentrations for comparison to the national and California air pollution standards.

*Station Information (see asterisks on front page)

$PM_{2.5}$ monitoring began at Gilroy on March 1, 2007. Therefore, three-year average $PM_{2.5}$ statistics are not available.

The Benicia site opened on April 1, 2007 and the Berkeley site opened on December 13, 2007. Therefore, three-year average ozone statistics are not available.

The Oakland site opened on November 1, 2007. Therefore, three-year average statistics for ozone and $PM_{2.5}$ are not available.

PM_{10} monitoring was discontinued on June 30, 2008 at Fremont, Livermore, Pittsburg, Redwood City, Santa Rosa, and Vallejo. Therefore PM_{10} statistics are no longer available at these sites.

The San Leandro and Sunnyvale sites were closed on November 30, 2008.

SO_2 monitoring was discontinued at San Francisco on December 31, 2008.

The Benicia and Pittsburg sites were closed on December 31, 2008.

Explanation of Terms

State and national excesses occur when pollutant concentrations surpass the indicated standards. For comparison, values in ppb must be converted to ppm and rounded to the same number of decimal places as the original standard.

MAX HR / MAX 8-HR / MAX 24-HR
The highest average contaminant concentration over a one-hour period, an eight-hour period (on any given day), or a 24-hour period (from midnight to midnight).

ANN AVG
The yearly average (arithmetic mean) of the readings taken at a given monitoring station.

NAT DAYS
The number of days during the year for which the monitoring station recorded contaminant concentrations in excess of the national standard.

CAL DAYS
The number of days during the year for which the station recorded contaminant concentrations in excess of the California standard.

TOTAL BAY AREA DAYS OVER STANDARD
is not a sum of excesses at individual stations, but rather a sum of the number of days for which excesses occurred at any one or more stations.

3-YR AVG (Nat. 8-hr ozone standard)
The 3-year average of the fourth highest 8-hour average ozone concentration for each monitoring station. A 3-year average greater than 84 ppb at any monitoring station means that the region does not meet the standard and may be designated non-attainment by the EPA.

PM_{10}
Particulate matter ten microns or smaller in size. PM_{10} is only sampled every sixth day. Actual days over standard can be estimated to be six times the number shown.

$PM_{2.5}$
Particulate matter 2.5 microns or smaller in size. $PM_{2.5}$ is a sub-category of PM_{10}.

PM_{10} ANN AVG and MAX 24-HR
This table shows PM_{10} data reported at local temperature and pressure conditions, according to the California standards. National PM_{10} data are converted to standard temperature and pressure conditions, which generally results in slightly lower readings.

3-YR AVG ($PM_{2.5}$ 24-hour standard)
The 3-year average of the annual 98th percentiles of the individual 24-hour concentrations of $PM_{2.5}$. A 3-year average greater than 35 µg/m³ at any monitoring station means that the region does not meet the standard and may be designated non-attainment by the EPA.

3-YR AVG ($PM_{2.5}$ annual standard)
The 3-year average of the quarterly averages of $PM_{2.5}$. A 3-year average greater than 15 µg/m³ at any monitoring station means that the region does not meet the standard and may be designated non-attainment by the EPA.

HEALTH-BASED AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Std	National Std
Ozone	1 Hour	0.09 ppm	—
	8 Hour	0.070 ppm	0.075 ppm
Carbon Monoxide	1 Hour	20 ppm	35 ppm
	8 Hour	9.0 ppm	9 ppm
Nitrogen Dioxide	1 Hour	0.25 ppm	—
	Annual	—	0.053 ppm
Sulfur Dioxide	24 Hour	0.04 ppm	0.14 ppm
	Annual	—	0.030 ppm
Particulates ≤ 10 microns	24 Hour	50 µg/m³	150 µg/m³
	Annual	20 µg/m³	—
Particulates ≤ 2.5 microns	24 Hour	—	35 µg/m³
	Annual	12 µg/m³	15 µg/m³

Concentrations | **ppm** parts per million | **ppb** parts per billion | **µg/m³** micrograms per cubic meter

TEN-YEAR BAY AREA AIR QUALITY SUMMARY

DAYS OVER STANDARDS

YEAR	OZONE			CARBON MONOXIDE				Nitrogen Dioxide	Sulfur Dioxide		PM_{10}		$PM_{2.5}$
	8-Hr*	1-Hr	8-Hr	1-Hr		8-Hr		1-Hr	24-Hr		24-Hr		24-Hr**
	Nat	Cal		Nat	Cal	Nat	Cal	Cal	Nat	Cal	Nat	Cal	Nat
1999	9	20	-	0	0	0	0	0	0	0	0	12	-
2000	4	12	-	0	0	0	0	0	0	0	0	7	1
2001	7	15	-	0	0	0	0	0	0	0	0	10	5
2002	7	16	-	0	0	0	0	0	0	0	0	6	7
2003	7	19	-	0	0	0	0	0	0	0	0	6	0
2004	0	7	-	0	0	0	0	0	0	0	0	7	1
2005	1	9	9	0	0	0	0	0	0	0	0	6	0
2006	12	18	22	0	0	0	0	0	0	0	0	15	10
2007	1	4	9	0	0	0	0	0	0	0	0	4	14
2008	12	9	20	0	0	0	0	0	0	0	0	5	12

*On May. 17, 2008, the U.S. EPA implemented a more stringent national 8-hour ozone standard , revising it from 0.08 ppm to 0.075 ppm. Ozone exceedance days for 2008 reflect the new standard.

**On Dec. 17, 2006, the U.S. EPA implemented a more stringent national 24-hour $PM_{2.5}$ standard—revising it from 65 µg/m³ to 35 µg/m³. Starting in 2006, $PM_{2.5}$ exceedance days reflect the new standard.