

BAY AREA AIR POLLUTION SUMMARY — 2004

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MONITORING STATIONS	OZONE				CARBON MONOXIDE			NITROGEN DIOXIDE			SULFUR DIOXIDE			PM ₁₀				PM _{2.5}				
	Max 1-Hr	Nat Days	Cal Days	3-Yr Avg	Max 8-Hr	Nat 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	3-Yr Avg	Ann Avg	3-Yr Avg
North Counties	(pphm)				(pphm)			(ppm)			(pphm)			(ppb)				(µg/m ³)				(µg/m ³)
Napa	9	0	0	0.0	7	0	6.6	3.7	2.0	0	6	1.1	0	-	-	-	20.7	60	0	1	-	-
San Rafael	9	0	0	0.0	6	0	4.9	3.2	2.0	0	6	1.5	0	-	-	-	17.9	52	0	1	-	-
Santa Rosa	8	0	0	0.0	6	0	5.1	2.7	1.6	0	5	1.1	0	-	-	-	18.0	48	0	0	27	9
Vallejo	10	0	1	0.0	7	0	6.5	4.0	3.4	0	5	1.2	0	5	1.3	0	19.6	51	0	1	40	11
Coast & Central Bay																						
Oakland	8	0	0	0.0	6	0	4.0	3.5	2.6	0	-	-	-	-	-	-	-	-	-	-	-	-
Richmond	-	-	-	-	-	-	-	-	-	-	5	1.6	0	-	-	-	-	-	-	-	-	-
San Francisco	9	0	0	0.0	6	0	4.7	2.9	2.2	0	6	1.7	0	8	1.4	0	22.5	52	0	1	46	11
San Pablo	11	0	1	0.0	7	0	5.2	3.2	1.8	0	6	1.3	0	5	1.6	0	21.2	64	0	1	-	-
Eastern District																						
Bethel Island	10	0	1	0.0	8	0	7.5	1.2	0.9	0	3	0.8	0	6	1.6	0	19.5	42	0	0	-	-
Concord	10	0	1	0.0	8	0	7.9	2.7	2.0	0	7	1.2	0	10	1.0	0	18.6	51	0	1	74	11*
Crockett	-	-	-	-	-	-	-	-	-	-	7	1.7	0	-	-	-	-	-	-	-	-	-
Fairfield	10	0	1	0.0	8	0	7.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Livermore	11	0	5	1.0	8	0	8.3	3.5	1.8	0	6	1.4	0	-	-	-	20.0	49	0	0	41	11
Martinez	-	-	-	-	-	-	-	-	-	-	7	1.5	0	-	-	-	-	-	-	-	-	-
Pittsburg	9	0	0	0.0	8	0	7.3	4.1	1.9	0	5	1.1	0	7	2.0	0	21.7	64	0	1	-	-
South Central Bay																						
Fremont	9	0	0	0.0	7	0	6.4	3.0	1.7	0	6	1.5	0	-	-	-	18.6	49	0	0	40	10
Hayward	9	0	0	0.0	7	0	6.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redwood City	10	0	1	0.0	7	0	6.0	4.8	2.1	0	6	1.5	0	-	-	-	20.5	65	0	1	36	9
San Leandro	10	0	1	0.0	7	0	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Santa Clara Valley																						
Gilroy	9	0	0	0.0	8	0	7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Los Gatos	9	0	0	0.0	8	0	7.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
San Jose Central*	9	0	0	*	7	0	*	4.4	3.0	0	7	1.9	0	-	-	-	23.1	58	0	4	52	*
San Jose East	9	0	0	0.0	7	0	6.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
San Jose, Tully Road	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.0	65	0	3	45	10
San Martin	9	0	0	0.0	8	0	8.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunnyvale	10	0	1	0.0	8	0	6.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Bay Area Days over Standard	0 7				0			0			0			0 7				1				

*See notes of explanation on back of this page

2004 NOTES

The annual Bay Area Air Pollution Summary summarizes measurements for the national and California pollutant standards.

*Station Information (see asterisks on front page)

The **San Jose 4th Street** station was closed on April 30, 2002. It was relocated to **San Jose Central** on October 5, 2002. Three-year average ozone statistics and three-year average PM_{2.5} statistics for San Jose Central have been omitted from this summary.

Due to roof damage at the Concord station during the fourth quarter of 2004, the PM_{2.5} sampler could not be operated on some of the required sampling days. The PM_{2.5} annual average and three-year average PM_{2.5} statistics are based on available data.

Explanation of Terms

State and national excesses occur when pollutant concentrations surpass the indicated standards, with values in most cases rounded to the same number of decimal places.

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 levels 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 (1-hr ozone standard)

The average number of days per year during which ozone levels were in excess of the national 1-hour standard, based on the most recent three-year period. *An average higher than 1.0 at any monitoring station means the region will be considered out of attainment by the EPA.*

3-YR AVG (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 8.4 at any monitoring station means that the region will be considered out of attainment by the EPA.*

PM₁₀

Particulate matter ten microns or smaller in size. (PM₁₀ 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 PM₁₀.

PM₁₀ ANN AVG and MAX 24-HR

California PM₁₀ Annual Average and Maximum 24-Hour concentrations are reported at local temperature and pressure conditions. National PM₁₀ Annual Average and Maximum 24-Hour concentrations are reported at standard temperature and pressure conditions. This table shows the California readings for PM₁₀ Ann Avg and Max 24-Hr, which are generally slightly higher than the national 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 65 µg/m³ at any monitoring station means that the region will be considered out of 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 will be considered out of attainment by the EPA.*

HEALTH-BASED AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Std	National Std
Ozone	1 Hour*	9 pphm	12 pphm*
	8 Hour	—	8 pphm
Carbon Monoxide	1 Hour	20 ppm	35 ppm
	8 Hour	9.0 ppm	9 ppm
Nitrogen Dioxide	1 Hour	25 pphm	—
	Annual	—	5.3 pphm
Sulfur Dioxide	24 Hour	40 ppb	140 ppb
	Annual	—	30 ppb
Particulates < 10 microns —	24 Hour	50 µg/m ³	150 µg/m ³
	Annual	20 µg/m ³	50 µg/m ³
Particulates < 2.5 microns —	24 Hour	—	65 µg/m ³
	Annual	12 µg/m ³	15 µg/m ³

*The U.S. EPA revoked the national 1-hour ozone standard on June 15, 2005.

Concentrations

ppm
parts per million

pphm
parts per hundred 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}	
	1-Hr		8-Hr	1-Hr		8-Hr		1-Hr	24-Hr		24-Hr*		24-Hr**
	Nat	Cal	Nat	Nat	Cal	Nat	Cal	Cal	Nat	Cal	Nat	Cal	Nat
1995	11	28	-	0	0	0	0	0	0	0	0	7	-
1996	8	34	-	0	0	0	0	0	0	0	0	3	-
1997	0	8	-	0	0	0	0	0	0	0	0	4	-
1998	8	29	16	0	0	0	0	0	0	0	0	5	-
1999	3	20	9	0	0	0	0	0	0	0	0	12	-
2000	3	12	4	0	0	0	0	0	0	0	0	7	1
2001	1	15	7	0	0	0	0	0	0	0	0	10	5
2002	2	16	7	0	0	0	0	0	0	0	0	6	7
2003	1	19	7	0	0	0	0	0	0	0	0	6	0
2004	0	7	0	0	0	0	0	0	0	0	0	7	1
*PM ₁₀ is sampled every sixth day—actual days over standard can be estimated to be six times the numbers listed.											**2000 is the first full year for which the Air District measured PM _{2.5} levels.		

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