

B. Lake County Air Basin (Lake County AQMD)



The Lake County Air Basin is comprised of a single air district, the Lake County AQMD, and consists of Lake County. The Basin is currently designated as attainment for the State 24-hour and annual average PM₁₀ standards, as well as the State annual average PM_{2.5} standard.

Figure B-1 shows the location of PM₁₀ (a) and PM_{2.5} (b) monitoring sites in the Lake County Air Basin. The air basin has a single monitor located at Lakeport that collects both PM₁₀ and PM_{2.5} data.

Figure B-1. PM₁₀ and PM_{2.5} Monitoring Sites throughout the Air Basin.

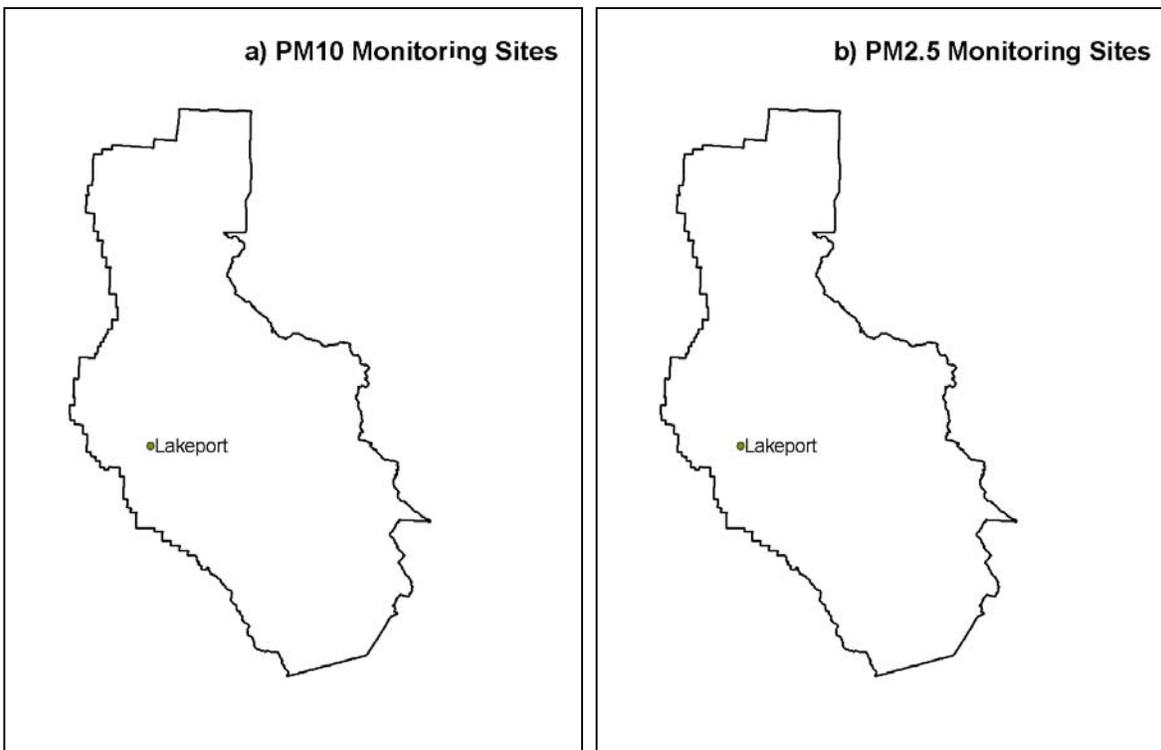


Table B-1 provides information on yearly variations in the highest PM10 and PM2.5 concentrations recorded across the District in 2001 through 2003. On average, Lake County has among the lowest particulate levels in the State.

Table B-1. PM10 and PM2.5 Air Quality in Lake County AQMD.

Year	PM10 (ug/m ³)			PM2.5 (ug/m ³)	
	Calculated Days over State Std.	Max 24-hour (Std.=50)	Max Annual Average (Std.=20)	Max 24-hour*	Max Annual Average (Std.=12)
2001	0	23	10	15	4
2002	12**	85**	13	75**	6
2003	0	32	10	22	4

* The maximum 24-hour PM2.5 values are provided for information only.

** These values were excluded for determining attainment status. See text.

Table B-2 provides the 24-hour and annual designation values for the State standards for the 2001-2003 period. Designation values represent the highest 24-hour PM10 concentration measured during the three year period, after concentrations measured during highly irregular and infrequent events have been excluded, and the highest estimated PM10 and PM2.5 annual average in the same period. For example, the high 24-hour PM10 and PM2.5 concentrations in 2002 shown in table B-1 were due to wildfires and were excluded in determining the designation values shown in Table B-2. The designation values are determined for each site, and the highest site is used for determining an area's designation. Based on these data, the Lake County AQMD currently is attainment for both the State 24-hour and annual average PM10 standards, as well as the State annual average PM2.5 standard.

Table B-2. Air District Level Designation Values* for the State PM10 and PM2.5 Standards (2001-2003 Period).

	PM10 (ug/m ³)		PM2.5 (ug/m ³)
	24-Hour (Std.=50)	Annual Average (Std.=20)	Annual Average (Std.=12)
Designation Value	32	13	6

* Designation value is the value used for determining attainment status. It is the highest measured value over three years after excluding highly irregular or infrequent events.

Table B-3 provides designation values for each monitoring site in the air district to provide further information on the geographic distribution of concentrations. In the case of Lake County AQMD, only a single monitoring site is operated in the air district.

Table B-3. Monitoring Site Level Designation Values* for the State PM10 and PM2.5 Standards (2001-2003 Period).

Site	PM10 (ug/m ³)		PM2.5 (ug/m ³)
	24-Hour (Std.=50)	Annual Average (Std.=20)	Annual Average (Std.=12)
Lakeport	32	13	6

* Designation value is the value used for determining attainment status. It is the highest measured value over three years after excluding highly irregular or infrequent events.

Figure B-2. Seasonal Variation in PM10 and PM2.5 Concentrations.

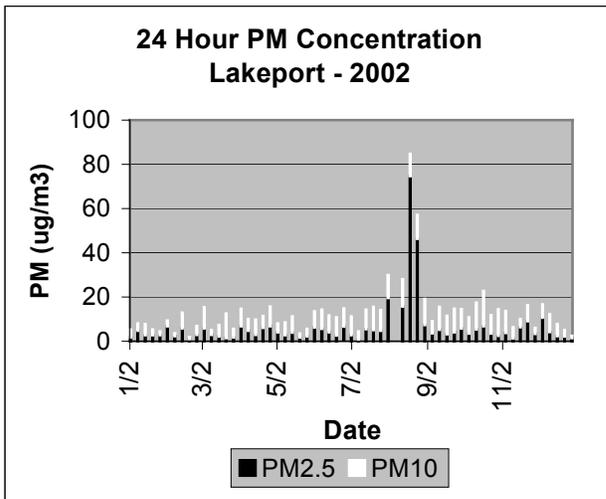


Figure B-2 illustrates the variation in PM10 and PM2.5 levels throughout the year at Lakeport. The total height of the bars represents PM10 concentrations, while the height of the black portion of the bars represents the PM2.5 fraction. PM10 and PM2.5 levels remain low throughout most of the year. As noted above, the high PM2.5-dominated levels during the summer were the result of wildfires. Based on 2000-2003 monitoring data, we estimate that PM2.5 contributes approximately

65 percent to peak ambient PM10 levels. On an annual average basis, approximately 55 percent of the ambient PM10 consists of PM2.5.

No chemical composition data are available for PM in Lake County. However, due to meteorological and emission pattern similarities with the North Coast and northern Sacramento Valley, we expect the secondary portion of PM2.5, comprised of ammonium nitrate and ammonium sulfate, to be about 30 percent in the Lake County AQMD.