



June 4, 1997

Contacts:

Bill Walker (415) 561-6598

Richard Wiles (202) 667-6982

100,000 California Kids Breathe Unhealthy Air at School

Summary

Approximately 109,000 children in California breathe unhealthy air at school, according to an Environmental Working Group (EWG) computer analysis. These children attend one of the 147 schools in the state located in areas where monitored air pollution levels exceed the U.S. Environmental Protection Agency's proposed new standards for microscopic toxic airborne particles.

The Particulates Problem

The EPA estimates that fine particulate air pollution is responsible for the premature death from heart and lung disease of 35,000 people in the United States each year. The EPA has proposed new standards that would roughly cut in half the amount of particles permitted in air. These proposed standards would prevent an estimated 2,500 premature deaths a year in California. However, the California Air Resources Board has recommended stronger standards, which could prevent an additional 3,000 to 4,000 premature deaths per year statewide.

On May 29, EWG released a national report, based on air pollution data from California and other states, showing that the worst industrial sources of particulate pollution are oil and gas refineries, chemical plants, pulp and paper mills and electric utilities. (*Smokestacks and Smoke Screens: Big Money, Big Polluters and the Fight for Cleaner Air.*) In California, the largest industrial emitters of particulate pollution include such petrochemical corporations as Exxon, Chevron, Shell, Arco and Mobil, as well as Southern California Edison and Pacific Gas & Electric.

Kids On the Front Line

Both California and national air pollution standards are currently based on exposure limits necessary to protect the average person in the population. But these standards may be inadequate to protect children. Not only are children's systems most often more vulnerable to lower levels of toxins than adults', but kids spend considerably more time out of doors — at play and at school — where they are more likely to breathe airborne pollutants.

— more —

To determine how many California children are exposed to unhealthy air at school, EWG first identified all air pollution monitors in the state where levels of airborne particles exceeded EPA's proposed standards for the particles known as PM-2.5 — annual exposure to no more than 15 micrograms per cubic meter of air. (PM-2.5 particles are those that are 2.5 microns or smaller. A micron is 1 millionth of a meter, or about one-seventieth the size of a human hair.)

We then identified, from state Department of Education data, all schools located within one mile of these monitors. The attached table list alphabetically, city-by-city, the 147 schools, the number of students who attend, the distance from the monitor, and the levels of particulate pollution recorded by the monitors. (Note than several schools in the same city may share proximity to a single monitor.)

Measured by exposure level, students in Calexico, Imperial County, are most at risk. Both Jefferson Elementary School and Calexico High School are within one-half mile of a monitor that recorded particulate levels of 36.6 micrograms — well over twice the EPA's proposed standard.

Of the state's larger cities, seven schools in Riverside were near a monitor that recorded particulate levels of 27.9 micrograms. Bakersfield had 15 schools near monitors detecting 19 or more micrograms, Burbank had nine schools near sites detecting 18 or more micrograms, and Fresno had eight schools near monitoring sites detecting 18 or more micrograms.

It is important to note what these data **do not** show. Because air monitors are relatively few and far between, the actual number of children who attend school near a major source of particulate pollution may be significantly greater than 109,000. (If schools within two miles of a monitor that exceeds the proposed standard are counted, 461 schools with almost 325,000 students are affected.) Also, these data deal with pollutants detected at the site of the monitors, which measure emissions from auto exhaust as well as industrial emissions. While the air in Southern California and the Central Valley contains higher levels of total particulates, oil and chemical refineries in the East Bay top the list of industrial sources of particulate pollution in the state.

Conclusion and Recommendations

These findings show clearly that thousands of children in California are exposed to unhealthy levels of air pollution while at school. They point to the need for development and implementation of environmental health standards based on exposure limits necessary to protect children and other highly vulnerable populations.

Assembly Bill 278 would help address this problem. Among other provisions, the bill would require that the Air Resources Board conduct air pollution monitoring at selected schools and daycare centers in order to better evaluate children's exposure; require major toxics facilities within one mile of a school to implement pollution reduction plans; require notification of schools and daycare centers in the South Coast air district when air quality standards are violated or expected to be violated.



California schools within 1 mile of an air pollution monitor that exceeds the EPA proposed fine particle standard

School	City	Enrollment	Miles from Monitor	PM 2.5 Average
BALL JUNIOR HIGH	ANAHEIM	1,112	0.54	17.7
CALVARY CHAPEL CHRISTIAN ACADEMY	ANAHEIM	34	0.69	17.7
FRANKLIN ELEMENTARY	ANAHEIM	833	0.54	17.7
GRACE LUTHERAN PARISH ELEM.	ANAHEIM	56	0.43	17.7
JEFFERSON ELEMENTARY	ANAHEIM	813	0.73	17.7
LOARA HIGH	ANAHEIM	1,877	0.68	17.7
REVERE ELEMENTARY	ANAHEIM	970	0.67	17.7
ROSS ELEMENTARY	ANAHEIM	626	0.90	17.7
HODGE (VICTOR F.) ELEMENTARY	AZUSA	506	0.58	18.6
LONGFELLOW ELEMENTARY	AZUSA	339	0.84	18.6
MOUNTAIN VIEW ELEMENTARY	AZUSA	494	0.86	18.6
SLAUSON INTERMEDIATE	AZUSA	854	0.84	18.6
BAKERSFIELD HIGH	BAKERSFIELD	2,946	0.47	25.4
CURRAN JUNIOR HIGH	BAKERSFIELD	848	0.84	19.2
FRANKLIN ELEMENTARY	BAKERSFIELD	594	0.42	25.4
HARRIS (CAROLINE) ELEMENTARY	BAKERSFIELD	807	0.68	19.2
HIGHLAND ELEMENTARY	BAKERSFIELD	635	0.45	19.1
HILLS (STELLA I.) ELEMENTARY	BAKERSFIELD	647	0.64	23.6
LONGFELLOW ELEMENTARY	BAKERSFIELD	736	0.90	23.6
MANOR HEIGHTS CHRISTIAN	BAKERSFIELD	73	0.34	19.1
MUNSEY ELEMENTARY	BAKERSFIELD	739	0.56	19.2
NORTH HIGH	BAKERSFIELD	1,887	0.95	19.1
ROOSEVELT ELEMENTARY	BAKERSFIELD	737	0.70	19.2
ST. FRANCIS	BAKERSFIELD	444	0.67	19.2
STOCKDALE CHRISTIAN ELEM.	BAKERSFIELD	521	0.67	19.2
SUNRISE CHRISTIAN ELEM.	BAKERSFIELD	244	0.97	19.2
WILLIAM PENN ELEMENTARY	BAKERSFIELD	417	0.72	25.4
DESERT VALLEY HIGH (CONT.)	BRAWLEY	105	0.45	22.4
SACRED HEART ELEM.	BRAWLEY	142	0.25	22.4
WORTH (BARBARA) JUNIOR HIGH	BRAWLEY	877	0.29	22.4
BELLARMINE-JEFFERSON HIGH	BURBANK	620	0.82	18.4
BURBANK FOURSQUARE CHURCH	BURBANK	14	0.81	18.4
BURBANK HIGH	BURBANK	1,950	0.81	18.4
BURROUGHS HIGH	BURBANK	1,745	0.73	18.4
DISNEY (WALT) ELEMENTARY	BURBANK	387	0.29	18.4
EDISON (THOMAS) ELEMENTARY	BURBANK	538	0.97	18.4
JORDAN (DAVID STARR) MIDDLE	BURBANK	774	0.85	18.4
MCKINLEY (WILLIAM) ELEMENTARY	BURBANK	599	0.79	18.4
ST. ROBERT BELLARMINE ELEM.	BURBANK	309	0.87	18.4



California schools within 1 mile of an air pollution monitor that exceeds the EPA proposed fine particle standard

School	City	Enrollment	Miles from Monitor	PM 2.5 Average
AURORA HIGH (CONT.)	CALEXICO	159	0.60	29.0
CALEXICO HIGH	CALEXICO	1,541	0.18	36.6
DE ANZA JUNIOR HIGH	CALEXICO	980	0.59	29.0
DOOL ELEMENTARY	CALEXICO	684	0.96	29.0
JEFFERSON ELEMENTARY	CALEXICO	609	0.33	36.6
MAINS ELEMENTARY	CALEXICO	551	0.39	29.0
MORENO (WILLIAM) JUNIOR HIGH	CALEXICO	766	0.74	29.0
ROCKWOOD ELEMENTARY	CALEXICO	622	0.46	29.0
VINCENT MEMORIAL HIGH	CALEXICO	229	0.25	29.0
BUCHANAN HIGH	CLOVIS	2,212	0.64	17.7
COLE ELEMENTARY	CLOVIS	818	0.53	17.7
SIERRA VISTA ELEMENTARY	CLOVIS	640	0.86	17.7
VALLEY CHRISTIAN ACADEMY	CLOVIS	149	0.59	17.7
WELDON ELEMENTARY	CLOVIS	791	0.96	17.7
CENTRAL HIGH	EL CENTRO	2,861	0.17	18.7
GRACE LUTHERAN	EL CENTRO	70	0.31	18.7
HARDING ELEMENTARY	EL CENTRO	639	0.61	18.7
HEDRICK (MARGARET) ELEMENTARY	EL CENTRO	760	0.71	18.7
KENNEDY MIDDLE	EL CENTRO	549	0.52	18.7
LINCOLN ELEMENTARY	EL CENTRO	705	0.24	18.7
MCKINLEY ELEMENTARY	EL CENTRO	561	0.76	18.7
ST. MARY'S CATHOLIC ELEM.	EL CENTRO	268	0.76	18.7
WILSON JUNIOR HIGH	EL CENTRO	965	0.17	18.7
BELLA VISTA HIGH	FAIR OAKS	1,624	0.21	16.5
EL SERENO ALTERNATIVE EDUC. (ALTERN.)	FAIR OAKS	393	0.21	16.5
NORTHRIDGE ELEMENTARY	FAIR OAKS	422	0.61	16.5
ROBERTS ELEMENTARY	FAIR OAKS	436	0.89	16.5
AYNESWORTH ELEMENTARY	FRESNO	928	0.56	22.0
BALDERAS (EZEKIEL) ELEMENTARY	FRESNO	1,087	0.84	22.0
BIRNEY ELEMENTARY	FRESNO	916	0.26	18.2
CALWA ELEMENTARY	FRESNO	914	0.60	22.0
CENTENNIAL ELEMENTARY	FRESNO	834	0.88	18.2
KEYLIFE CHRISTIAN	FRESNO	10	0.64	18.2
PYLE ELEMENTARY	FRESNO	758	0.84	18.2
WISHON ELEMENTARY	FRESNO	785	0.84	18.2
LINCOLN ELEMENTARY	HANFORD	588	0.09	28.0
ANZA (JUAN DE) ELEMENTARY	HAWTHORNE	459	0.49	16.3
DANA (RICHARD HENRY) ELEMENTAR	HAWTHORNE	481	0.73	16.3
EUCALYPTUS ELEMENTARY	HAWTHORNE	1,135	0.80	16.3



California schools within 1 mile of an air pollution monitor that exceeds the EPA proposed fine particle standard

School	City	Enrollment	Miles from Monitor	PM 2.5 Average
INDIO MIDDLE	INDIO	1,003	0.66	20.7
JEFFERSON (THOMAS) MIDDLE	INDIO	614	0.66	20.7
PALM DESERT HIGH	INDIO	1,912	0.66	20.7
BUFORD ELEMENTARY	LENNOX	785	0.50	16.3
FELTON ELEMENTARY	LENNOX	757	0.76	16.3
LENNOX MIDDLE	LENNOX	1,772	0.48	16.3
BURROUGHS ELEMENTARY	LONG BEACH	313	0.90	17.2
HUGHES MIDDLE	LONG BEACH	1,411	0.57	17.2
LONG BEACH BRETHERN ELEM.	LONG BEACH	267	0.17	17.2
LONGFELLOW ELEMENTARY	LONG BEACH	810	0.45	17.2
LOS CERRITOS ELEMENTARY	LONG BEACH	383	0.64	17.2
RAINBOW CHRISTIAN ACADEMY	LONG BEACH	25	0.57	17.2
ST. BARNABAS ELEM.	LONG BEACH	283	0.86	17.2
ANN STREET ELEMENTARY	LOS ANGELES	288	0.74	19.8
CASTELAR STREET ELEMENTARY	LOS ANGELES	1,073	0.25	19.8
DOWNTOWN BUSINESS HIGH	LOS ANGELES	906	0.71	19.8
LOS ANGELES UNIFIED ALTERNATIVE	LOS ANGELES	2,231	0.47	19.8
PLASENCIA (BETTY) ELEMENTARY	LOS ANGELES	1,572	0.79	19.8
SOLANO AVENUE ELEMENTARY	LOS ANGELES	235	0.85	19.8
KING (MARTIN LUTHER JR.) MIDDLE	MADERA	0	0.41	18.0
MILLVIEW ELEMENTARY	MADERA	887	0.99	18.0
SIERRA VISTA ELEMENTARY	MADERA	821	0.64	18.0
FREMONT (JOHN) ELEMENTARY	MERCED	603	0.90	17.6
GRACEY (LEONTINE) ELEMENTARY	MERCED	881	0.25	17.6
SHEEHY (MARGARET) ELEMENTARY	MERCED	563	0.41	17.6
TENAYA MIDDLE	MERCED	1,023	0.56	17.6
ENSLER ELEMENTARY	MODESTO	417	0.50	17.4
HOPE CHRISTIAN ACADEMY	MODESTO	26	0.57	17.4
SMALL WORLD CHRISTIAN ELEM.	MODESTO	75	0.82	17.4
WILSON ELEMENTARY	MODESTO	426	0.99	17.4
CARNEGIE (ANDREW) MIDDLE	ORANGEVALE	930	0.96	16.5
PARK AVENUE ELEMENTARY	PERRIS	621	0.75	20.0
REDEEMER CHRISTIAN	PERRIS	38	0.97	20.0
SANDERS (NAN) ELEMENTARY	PERRIS	866	0.73	20.0
ST. JAMES ELEM.	PERRIS	309	0.87	20.0
TEMPLE CHRISTIAN SCHOOLS	PERRIS	194	0.99	20.0
CITRUS GROVE CHRISTIAN	REDLANDS	16	0.47	19.4
FRANKLIN ELEMENTARY	REDLANDS	958	0.71	19.4
HOPE CHRISTIAN ELEM.	REDLANDS	63	0.44	19.4



California schools within 1 mile of an air pollution monitor that exceeds the EPA proposed fine particle standard

School	City	Enrollment	Miles from Monitor	PM 2.5 Average
REDLANDS CHRISTIAN	REDLANDS	313	0.91	19.4
REDLANDS SENIOR HIGH	REDLANDS	4,701	0.56	19.4
TEMPLE BAPTIST ELEM.	REDLANDS	101	0.84	19.4
MISSION MIDDLE	RIVERSIDE	1,313	0.77	27.9
NUEVA VISTA CONTINUATION HIGH	RIVERSIDE	284	0.48	27.9
RIO VISTA HIGH	RIVERSIDE	38	0.48	27.9
RUBIDOUX HIGH	RIVERSIDE	1,995	0.78	27.9
RUSTIC LANE ELEMENTARY	RIVERSIDE	639	0.43	27.9
SUNNYSLOPE CHRISTIAN	RIVERSIDE	6	0.54	27.9
SUNNYSLOPE ELEMENTARY	RIVERSIDE	689	0.74	27.9
MONTEREY ELEMENTARY	SAN BERNARDINO	688	0.29	23.1
SIERRA HIGH (CONT.)	SAN BERNARDINO	411	0.90	23.1
PERKINS ELEMENTARY	SAN DIEGO	590	0.64	15.5
SHERMAN ELEMENTARY	SAN DIEGO	1,068	0.66	15.5
SAMUEL HANCOCK CHRISTIAN	STOCKTON	28	0.34	16.1
ST. GERTRUDE	STOCKTON	199	0.33	16.1
GLENSHIRE ELEMENTARY	TRUCKEE	0	0.68	21.2
SACRED HEART ELEM.	TURLOCK	278	0.86	18.2
TURLOCK HIGH	TURLOCK	3,330	0.67	18.2
WAKEFIELD ELEMENTARY	TURLOCK	784	0.97	18.2
CHRISTIAN COVENANT ACADEMY	VICTORVILLE	16	0.71	16.2
CONYER ELEMENTARY	VISALIA	567	0.93	21.1
GRACE LUTHERAN	VISALIA	127	0.97	21.1
HIGHLAND ELEMENTARY	VISALIA	528	0.55	21.1
MINERAL KING ELEMENTARY	VISALIA	821	0.73	21.1
MT. WHITNEY HIGH	VISALIA	1,956	0.87	21.1
PATHFINDER CHRISTIAN ELEM.	VISALIA	54	0.89	21.1
PRAISE ALTERNATIVE CHRISTIAN EDUCATION	VISALIA	8	0.28	21.1
REDWOOD HIGH	VISALIA	1,962	0.66	21.1
WASHINGTON ELEMENTARY	VISALIA	422	0.55	21.1