

Children's Environmental Health Protection Site Summary

Barrio Logan

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Site Location:

Memorial Academy is located within the Logan Heights/Barrio Logan area of San Diego and is one of six sites chosen for Children's Environmental Health Protection monitoring. The school is located at 2850 Logan Avenue in an area bounded to the north and east by State Routes 94 and 15, respectively, and to the west by Interstate 5.

Site Approval:

In the summer of 1999 administrators of the San Diego Unified School District granted the Air Resources Board (ARB) permission to install an ambient air monitoring station on school property.

Monitoring Start Date:

Collection of ambient air quality data at the Barrio Logan site began in October of 1999.

Reason for Choosing Barrio Logan:

The objective of the Barrio Logan monitoring project was to gather data used in determining the health

impacts of air toxics and to assess differences between air toxic concentrations detected in Barrio Logan and those detected at air monitoring sites in the communities of Chula Vista and El Cajon.

Connection to Other Air Resources Board Programs:

Data from the Barrio Logan site will be used in support of the ARB's Community Health



Program (<http://www.arb.ca.gov/ch/ch.htm>). Air monitoring data from Memorial Academy will also provide information for ambient air modeling studies and the ARB's ongoing efforts to mitigate the health risks from diesel particulate (<http://www.arb.ca.gov/diesel/background.htm>).

Monitoring Parameters:

Selected criteria pollutants, air toxics, and meteorological parameters were measured using standard methods. Measured pollutants at the Barrio Logan site included ozone, carbon monoxide oxides of nitrogen, PM10, PM2.5 (real-time), and toxic gases and metals (e.g., 1,3-butadiene, benzene, formaldehyde, and hexavalent chromium). Meteorological parameters included wind speed, wind direction, and ambient temperature.

Monitoring Schedule:

Gaseous criteria pollutants (ozone, carbon monoxide, and oxides of nitrogen) were monitored continuously for the duration of the project. PM2.5 measurements were made continuously in real-time or near real-time. Toxic air contaminants were collected every fourth day from October 1999 through March 2000. From April 2000 through September 2000, aldehydes and hexavalent chromium were collected once every twelve days. Meteorological information at the site was collected continuously.

Anticipated End Date:

Ambient air monitoring ended at Memorial Academy approximately March 1, 2001.

Monitoring at Multiple Sites in Barrio Logan:

Monitoring at multiple locations in Barrio Logan occurred in May/June 2001, December 2001, and February 2002. Additional monitoring will also occur in March 2002. The sites chosen for satellite monitoring are near two chrome plating facilities in Barrio Logan.

Agencies/Resources/Roles:

The ARB is the lead agency for carrying out Children's Environmental Health Protection monitoring and has overall responsibility for the project. The San Diego County Air Pollution Control District provided assistance in the ongoing maintenance of collection of samples throughout the Barrio Logan project. Laboratory analyses of samples collected at Memorial Academy were performed by the ARB.

Within the ARB, the Monitoring and Laboratory Division, Air Quality Surveillance Branch (Special Purpose Monitoring Section) had operational oversight for the station. The Quality Management Branch (Operations Planning and Assessment Section) currently has the lead role in compiling data for inclusion in the final report at the end of the Children's Environmental Health Protection monitoring program. The Northern Laboratory Branch performed all laboratory analytical work for the Barrio Logan project.

The Planning and Technical Support Division is coordinating the Community Health Program and will use the data generated at Memorial Academy to support other Community Health studies currently under development. Ongoing public outreach for the Community Health Program is being coordinated by the Planning and Technical Support Division.

Emission Sources:

In addition to mobile source emissions, point sources in and around Barrio Logan were determined through emissions inventory data and physical survey of the area. Major sources identified include chrome plating and refinishing operations. Other sources of air pollution in Barrio Logan include neighborhood scale sources such as service stations.

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