

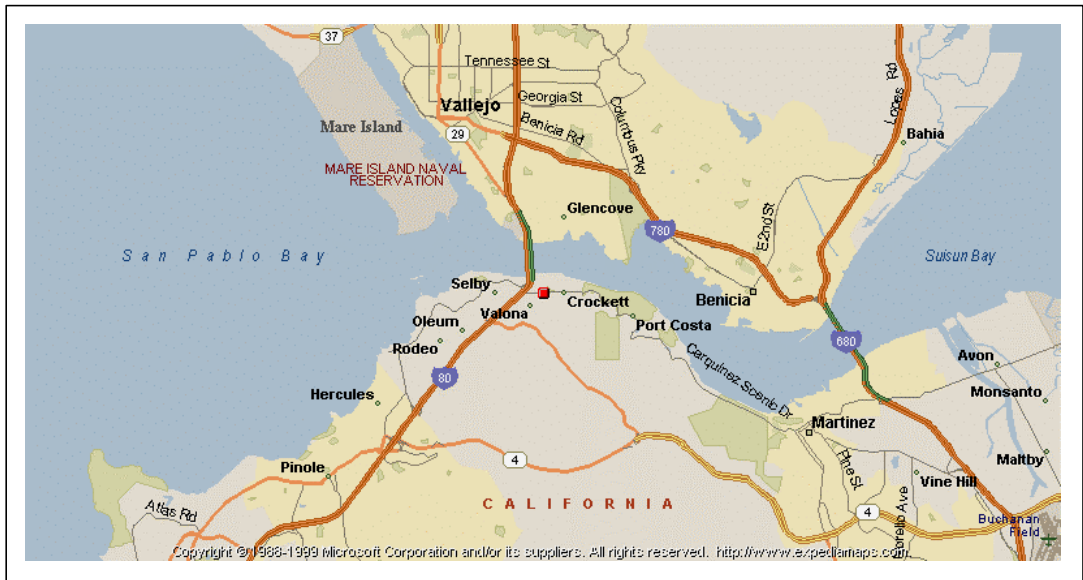
Children's Environmental Health Protection Site Summary

Crockett

This page updated on October 22, 2001

Site Location:

John Swett High School in central Crockett is one of six sites chosen for Children's Environmental Health Protection monitoring. The city of Crockett is located in northern Contra Costa County where the Carquinez Bridge (Interstate 80) crosses the Carquinez Strait. The high school is located at 1098 Pomona Street.

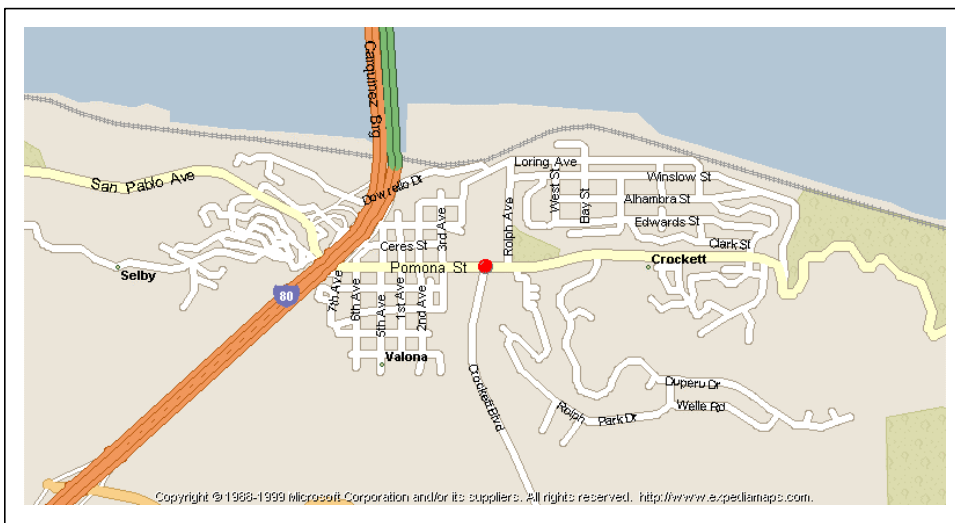


Site Approval:

Administrators of the John Swett Unified School District granted the Air Resources Board (ARB) permission to install an ambient air monitoring station on school property in October of 2000.

Expected Monitoring Start Date:

Collection of ambient air quality data is expected to begin on or about October 4, 2001.



Reason for Choosing Crockett:

Crockett was chosen because of its proximity to high-risk facilities, including potential sources of dioxin, and mobile source emissions. Oil refineries and major oil storage facilities are located in the nearby cities of Rodeo, Hercules, Martinez, and Benicia. Crockett is the location of a major food processing

operation and a heavy-rail transfer facility. Crockett is home to two schools, John Swett High School and Carquinez Middle School. The student population of John Swett High School is approximately 650. Carquinez Middle School, located directly across Pomona Street from the high school, has a student

population of 500. Both schools are located approximately one-half mile from Interstate 80, a major source of vehicle emissions.

Connection to Other Air Resources Board Programs:

In addition to providing data necessary to determine the exposure of children to criteria pollutants and air toxics, data collected at John Swett will be used to support the ARB's Community Health Program (<http://www.arb.ca.gov/ch/ch.htm>). Data from John Swett High School will also provide information on the health risks from diesel particulate (<http://www.arb.ca.gov/diesel/background.htm>) and on local ambient levels of dioxin as part of the ARB's dioxin monitoring project.

Monitoring Parameters:

Criteria pollutants, air toxics, and meteorological parameters will be measured using standard methods. Special instruments and methods will also be used to approximate the concentration of diesel particulate. The pollutants to be measured include carbon monoxide, ozone, oxides of nitrogen, sulfur dioxide, PM10, PM2.5 (real-time), and toxic gases and metals, including 1,3-butadiene, benzene, formaldehyde, and hexavalent chromium. Diesel particulate will be indexed to elemental carbon and black carbon measurements. Dioxin samples will be collected on PUF samplers followed by GC/MS assay. Meteorological parameters will include wind speed, wind direction, ambient temperature, and relative humidity.

Monitoring Schedule:

Monitoring for gaseous criteria pollutants (carbon monoxide, ozone, oxides of nitrogen, and sulfur dioxide) will be continuous for the duration of the project. PM2.5 and black carbon measurements will be made continuously in real-time or near real-time. PM10 samples will be collected every sixth day for mass analysis and for elemental carbon analysis. Samples collected for analysis of aldehydes, total metals, and hexavalent chromium will also be collected every sixth day as will samples analyzed for toxic compounds including 1,3-butadiene, benzene, and toluene. A dioxin sampler will be run for 28 consecutive days every month for the duration of the project. Meteorological information at the site will be collected continuously.

Anticipated End Date:

The ARB anticipates that ambient air monitoring will end at John Swett High School on or about October 4, 2002.

Monitoring at Multiple Sites in Crockett:

Additional monitoring will be conducted at other locations within Crockett/Contra Costa County as required by the legislation authorizing the Children's Environmental Health Protection Program. The locations of these secondary, or "satellite," sites are under evaluation by the ARB.

Agencies/Resources/Roles:

The ARB is the lead agency for carrying out Children's Environmental Health Protection monitoring and has overall responsibility for the study. The Bay Area Air Quality Management District (BAAQMD) provided assistance in selecting the John Swett High School station and may provide additional assistance in sample collection. ARB staff will conduct quality control and quality assurance activities.

Within the ARB, the Monitoring and Laboratory Division, Air Quality Surveillance Branch (Air Monitoring North Section and Special Purpose Monitoring Section) will have operational oversight for the station and will collect samples and perform instrument quality control checks on an ongoing basis. The Quality Management Branch (Operations, Planning and Assessment Section) will have the lead role in coordinating and tracking the project, validating the data, and preparing the initial project report. The Organic and Inorganic Laboratory Sections will perform the analytical work.

The Planning and Technical Support Division is coordinating the Community Health Program and will use the data generated at the John Swett High School monitoring station to support other Community Health studies currently under development. Public outreach for the Community Health Program is being coordinated by the Planning and Technical Support Division.

Emission Sources:

Other sources of air pollution in the Crockett area include pollution from marine vessel activity and neighborhood scale sources such as service stations.

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