# Pregnancy Outcomes around the BKK Landfill, West Covina, California: An Analysis by Address

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In 1963, the BKK Landfill, located on the slopes of the hills in the city of West Covina, CA, was permitted to accept hazardous materials. Between 1975 and 1984, over three million tons of predominantly liquid waste commingled with mostly nonhazardous solid waste were deposited into separate Class I landfills at the site. Other 35 different volatile organic compounds have been detected in the landfill gas. Site risk characterization by the US EPA and others indicated that the main route of exposure to the surrounding community has been through the air. As early as 1976, people began inhabiting residential developments within 500 feet of the site. In the mid-1980s, a local physician reported his impression that there were too many newborn deaths occurring in the community. In response, the California Department of Health Services carried out a number of health studies. This report represents the final and most detailed analysis of the birth records in the community around the site.

Over 25,000 live births and fetal deaths were studied, occurring between 1978 and 1986 to residents living within three miles of the BKK property line. Exposure assessment relied on numerous sources, including waste manifest reports, vinyl chloride monitoring data, odor complaints from residents, local meteorology and topography, the timing of pregnancy, and the location and distance from the landfill of the mother's residence as noted on the live birth or fetal death certificate.

No long-term, widespread, or severe pregnancy outcome problems were found to be associated in a dose-response manner with air emissions from the landfill over the nine-year study period. The results do not support the landfill as the cause of elevated rates of early neonatal mortality, very low birthweight, and preterm-moderately low birthweight in the early 1980s seen in previous studies in the area. Reassurance can be given to study area residents that no pregnancy outcome problems were observed in the post-dumping period (1985-1986) when gas emissions were more tightly controlled.