pedestrian overpasses, and bus turnouts. These projects improve mobility and air quality by encouraging efficient transportation use.

Policies:

AQ 14.1 Emphasize the use of high occupancy vehicle lanes, light rail and bus routes, and pedestrian and bicycle facilities when using transportation facility development to improve mobility and air quality.

AQ 14.2 Utilize facility development programs only when the County cannot substitute Transportation Demand Management, Transportation Systems Management, or job/housing balance strategies.

AQ 14.3 Monitor traffic and congestion to determine when and where the County needs new transportation facilities to achieve increased mobility efficiency.

AQ 14.4 Preserve transportation corridors with the potential of high demand or of regional significance for future expansion to meet project demand. (AI 53)

PARTICULATE MATTER

The Environmental Protection Agency (EPA) defines particulate matter (PM) as either airborne photochemical precipitates or windborne dust. Consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols, common sources of PM are manufacturing and power plants, agriculture, diesel trucks and other vehicles, construction sites, fire and windblown dust. Generally PM settles from atmospheric suspension as either particulate or acid rain and fog that has the potential to damage health, crops, and property. Particulate of 2.5 microns or smaller (2.5 microns is approximately equal to .000098 inches) may stay suspended in the air for longer periods of time and when inhaled can penetrate deep into the lungs. Among the health effects related to $PM_{2.5}$ are premature death, decreased lung function and exacerbation of asthma and other respiratory tract illnesses.

Particulate sized between 2.5 and 10 microns (10 microns is approximately equal to .0004 inches), known as PM_{10} also pose a great risk to human health. PM_{10} can easily enter the air sacs in the lungs where they may be deposited, resulting in an increased risk of developing cancer, potentially changing lung function and structure, and possibly exacerbating preexisting respiratory and cardiovascular diseases. It can also irritate the eyes, damage sensitive tissues, sometimes carry disease, and may even cause premature death. $PM_{2.5}$ and PM_{10} are especially hazardous to the old, young and infirmed.

Although it produces less than 10% of the South Coast Air Basin's particulate matter, western Riverside County, which is part of the SOCAB, exceeds federal standards more than any other urban area in the nation, and has the highest particulate concentration in the SOCAB. These high levels of particulate matter are largely imported from the urbanized portions of Los Angeles and Orange Counties. This imported particulate is generally composed of photochemical precipitates rather than dust, smoke or soot. Riverside County is also responsible

for generating large amounts of particulate matter from sources such as agriculture, warehousing operations, and truck traffic.

While Riverside County is dedicated to implementing policies to control particulate matter produced within its own boundaries, it has no control over particulate imported from beyond its boundaries. The solution to the problem of imported particulate matter in western Riverside County is the adoption of adequate control measures by those responsible jurisdictions in Los Angeles and Orange Counties. By adhering to the control measures contained in the AQMP, these jurisdictions can have a positive impact on particulate matter pollution in the SOCAB portion of Riverside County.

The air quality concerns in the Salton Sea Air Basin (SSAB) portions of the County differ somewhat from those in western Riverside County. Unlike the SOCAB region, particulates in SSAB are primarily dust, smoke and soot. While in 1993 and 1994, PM_{10} concentrations were under the federal standard, concentrations in 1995 were slightly above federal limits. The maximum annual average PM_{10} concentration in 1995 was recorded at 4% above the federal standard; however, the measurement included one day with high winds without which the SSAB would have been under the federal standard. The far more stringent state standards were exceeded on 44% of the days in 1995.

The Mojave Desert Air Basin (MDAB), like the SOCAB and SSAB, is designated as a non-attainment area for PM_{10}. Particulates in the MDAB are primarily fugitive caused by high winds or vehicle travel on unpaved roads. Particulates in the area are generally not caused by exhaust stacks or primary emission points.

While sources and severity of particulate pollution differ in subareas of the County, it is the County's objective to control particulate matter throughout all of Riverside County. However, where necessary, the County shall tailor its control measures and implementation procedures to best address the unique situations found in each area. One example of such an area is the Mira Loma community, where particulate pollutant levels are among the worst in the nation. In such an area, strong measures must be taken immediately to protect the health and welfare of residents, especially children, the elderly and those with respiratory illnesses.

Monitoring

Air quality monitoring stations are locating throughout Riverside County (Figure AQ-2). However, at times it may be necessary to locate additional monitors in those areas of the County suspected of producing excessively high levels of particulates. This more localized data may then assist control and law enforcement efforts in reducing and minimizing particulate matter levels.

Policies:

AQ 15.1 Identify and monitor sources, enforce existing regulations, and promote stronger controls to reduce particulate matter.