

SCAQMD defines the ambient CO level as the highest reading over the past three years. A review of data from the Lynwood Monitoring Station for the 2005 to 2007 period indicates that the one- and eight-hour background concentrations are approximately 8 and 6.4 ppm, respectively. Accordingly, the existing background concentrations do not exceed the State one- and eight-hour CO standards of 20 and 9.0 ppm, respectively.

Existing CO concentrations were modeled at intersections near the project site. The study intersections were selected to be representative of the project area and were based on traffic volume to capacity (V/C) ratio and the traffic level of service (LOS) as indicated in the traffic analysis. The intersections were selected because they represent the busiest or most congested intersections analyzed in the traffic analysis.

The selected intersections are as follows:

- Alameda Street/Firestone Boulevard – PM Peak Hour
- Santa Fe Avenue/Firestone Boulevard – AM and PM Peak Hour
- Long Beach Boulevard/Firestone Boulevard – AM and PM Peak Hour
- State Street/Firestone Boulevard – PM Peak Hour
- Alameda Street/Southern Avenue-92nd Street – PM Peak Hour

At each intersection, traffic-related CO contributions were added to background CO conditions. Traffic CO contributions were estimated using the USEPA CAL3QHC dispersion model, which utilizes traffic volume inputs and CARB EMFAC2007 emissions factors. Consistent with the California Department of Transportation (Caltrans) CO protocol, receptors for the analysis were located three meters (approximately ten feet) from each intersection corner. Existing conditions at the study intersections are shown in **Table 4.2-3**. One-hour CO concentrations range from approximately 9 to 10 ppm and eight-hour CO concentrations range from approximately 6.6 to 6.7 ppm. Presently, none of the study intersections exceed the State one- and eight-hour CO standards of 20 and 9.0 ppm, respectively.

<b>TABLE 4.2-3: EXISTING WEEKDAY CARBON MONOXIDE CONCENTRATIONS /a/</b>		
<b>Intersection</b>	<b>1-hour (parts per million)</b>	<b>8-hour (parts per million)</b>
Alameda Street/Firestone Boulevard – PM Peak Hour	10	6.7
Santa Fe Avenue/Firestone Boulevard – AM Peak Hour	9	6.6
Santa Fe Avenue/Firestone Boulevard –PM Peak Hour	9	6.6
Long Beach Boulevard/Firestone Boulevard – AM Peak Hour	9	6.6
Long Beach Boulevard/Firestone Boulevard –PM Peak Hour	10	6.7
State Street/Firestone Boulevard – PM Peak Hour	9	6.6
Alameda Street/Southern Avenue-92nd Street – PM Peak Hour	10	6.7
<b>State Standard</b>	<b>20</b>	<b>9.0</b>
/a/ All concentrations include one- and eight-hour ambient concentrations of 9 and 6.4 ppm, respectively. <b>SOURCE:</b> TAHA, 2009.		

### Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. CARB has identified the following typical groups who are most likely to be affected by air pollution: children under 14, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive