

## **Summary of Air Quality Monitoring in Boyle Heights** **February 2001 - December, 2001**

### **Boyle Heights Air Monitoring Study**

- Air monitoring is being conducted in Boyle Heights as part of the Children's Environmental Health Protection Program. The purpose of this program is to assess whether existing air monitoring network and air quality standards adequately protect children.
- Air monitoring for over 50 air pollutants is being conducted for approximately one year at Hollenbeck Middle School. Monitoring began in February 2001. (Figure 1)
- Air monitoring for particulate (PM10) and polycyclic aromatic hydrocarbons (PAH) was conducted between March, 2001 and October 2001 at Soto Street Elementary School and the East Los Angeles Science Center. (Figure 1)
- Monitoring data is still being collected and analyzed. The results being presented here represent a preliminary analysis of only a portion of the data being collected in this study.

### **Preliminary Findings Through December, 2001**

#### **PM10 Monitoring**

- The 24-hour federal PM10 standard (150 ug/m<sup>3</sup>) was not exceeded at any of the Boyle Heights monitoring sites.
- The 24-hour state PM10 standard (50 ug/m<sup>3</sup>) was exceeded at all three PM10 monitoring sites, but much more frequently at Soto Street School. (Figure 2)
- PM10 levels monitored at Soto Street School were consistently higher than at the other two sites. (Figure 3)
- The monitoring suggests that there is a noticeable freeway impact on PM10 levels at Soto Street School, but the lower PM10 levels at the two nearby schools indicates that freeway impacts decrease rapidly as you move away from the freeway. This observation agrees with computer simulations of the impact of freeway emissions performed by ARB staff.
- The PM10 levels measured at Hollenbeck School and the Science Center are very similar and both are similar to seasonal average PM10 values measured in downtown Los Angeles. (Figure 4 & 5)
- The PM10 levels measured at Soto Street School are higher than seasonal average PM10 values measured in downtown Los Angeles and are more comparable to seasonal average values measured in the Riverside area. The Riverside area has the most serious PM10 problem in the greater Los Angeles area. However, while the seasonal averages may be similar, the highest 24-hour PM10 values measured in Riverside are much higher than those measured at Soto Street School. (Figure 6)

#### **Ozone Monitoring**

- The federal one-hour ozone standard has not been exceeded at Hollenbeck School thus far in this monitoring study.
- The state one-hour ozone standard was exceeded on four days during last summer's monitoring at Hollenbeck School. This is a low number of exceedances of the state ozone standard for the Los Angeles area.

#### **Toxics Monitoring**

- In general, the levels of toxic pollutants measured at Hollenbeck School are lower than what was observed in Boyle Heights during the Mates II study in 1998 and 1999.
- During the spring and summer of 2001, the main toxic pollutants in automobile exhaust (benzene and 1,3 butadiene) measured at Hollenbeck School were comparable to downtown Los Angeles, but during the autumn of 2001 the Hollenbeck School levels were higher.

**Figure 1: Boyle Heights Monitoring Locations**



- 1: Hollenbeck Middle School, 2510 East Sixth Street (Primary Site)
- 2: East Los Angeles Mathematics, Science, and Technology Center, 961 Euclid Avenue (Satellite Site)
- 3: Soto Street Elementary School, 1020 South Soto Street (Satellite Site)

**Figure 2: Percent of PM10 Values in Boyle Heights Above the State 24-Hour Standard (50 ug/m3) for the Period from March 2001 through October 2001**

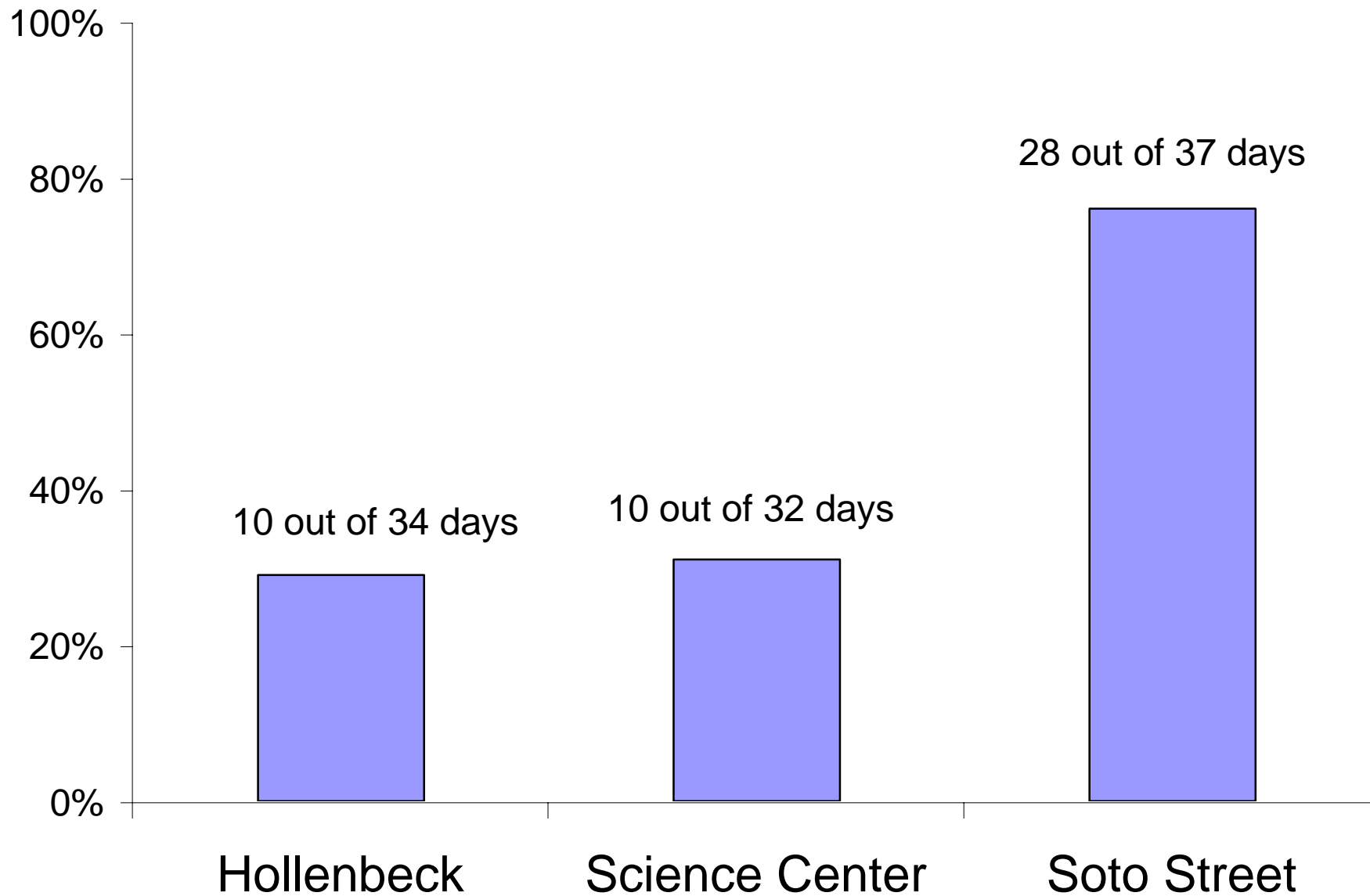
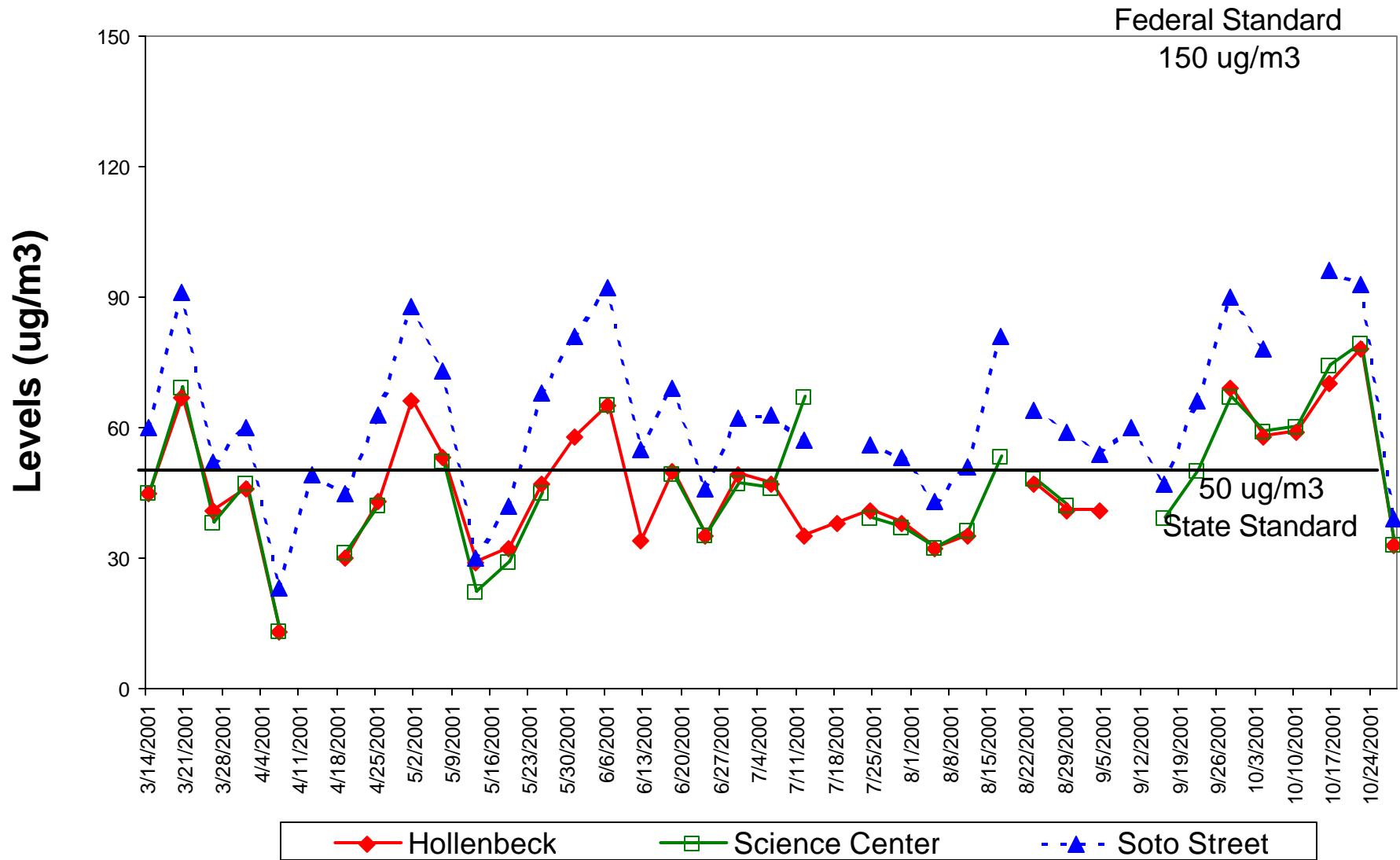
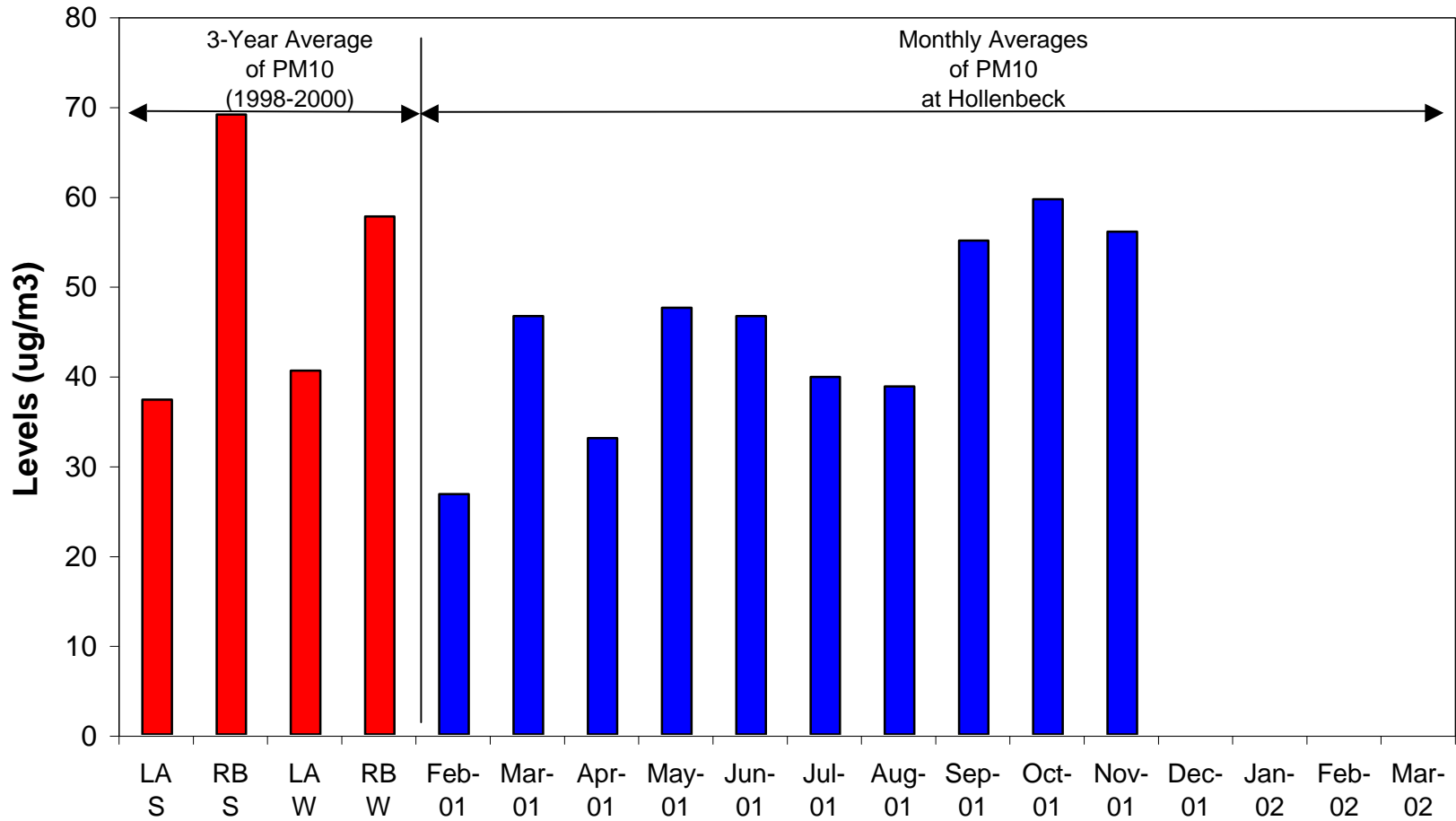


Figure 3: Particulate Matter (PM10) in Boyle Heights



## Particulate Matter (PM10) at Hollenbeck



Note: A=Annual; S=Summer (April through September);  
 W=Winter (October through March);  
 LA= Los Angeles County  
 RB=Riverside-Rubidoux

Note: This graph is provided for relative comparisons and not intended to address exceedance of the established standards.

Figure 4

## Particulate Matter (PM10) at Science Center

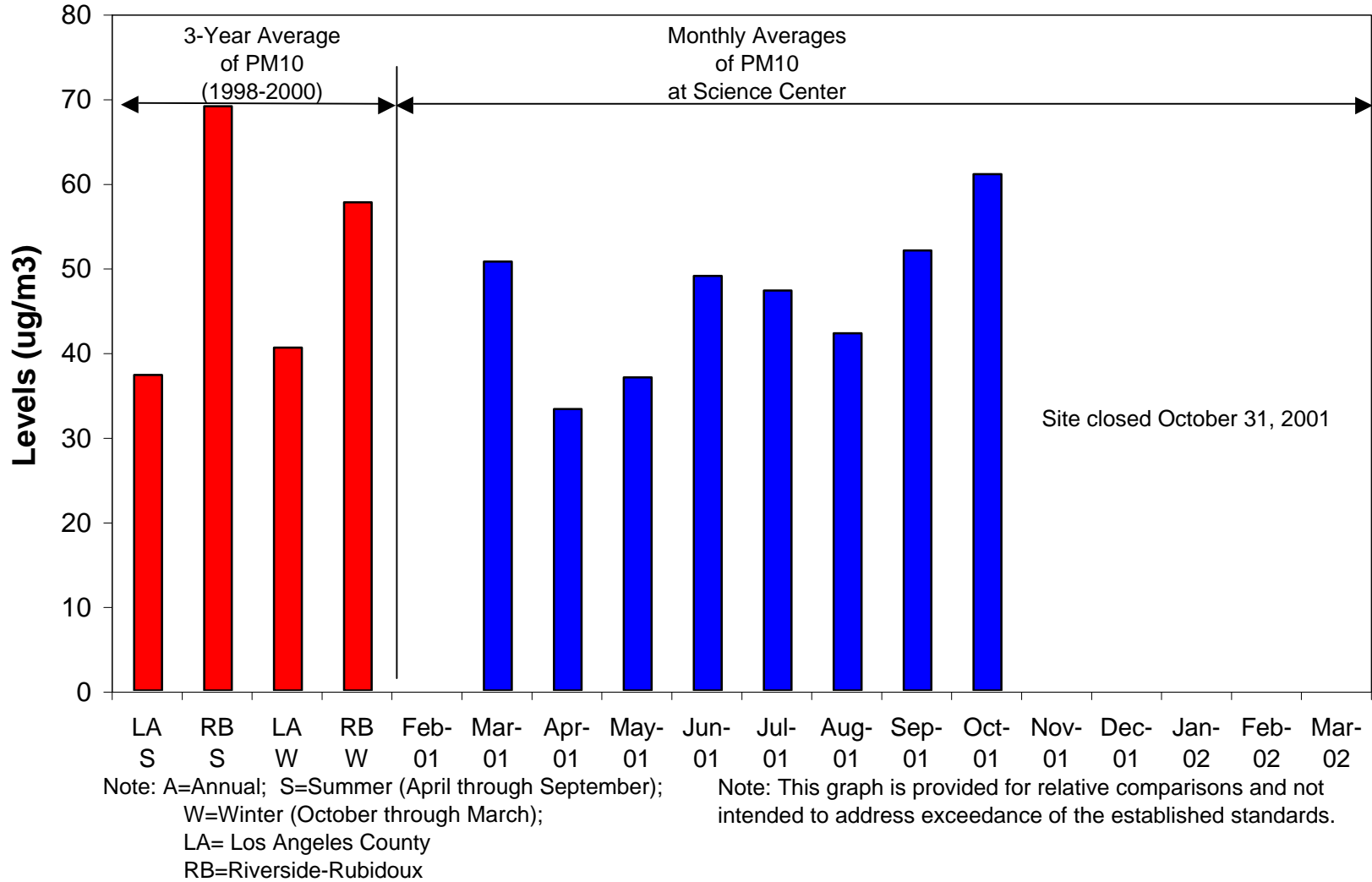


Figure 5

## Particulate Matter (PM10) at Soto Street

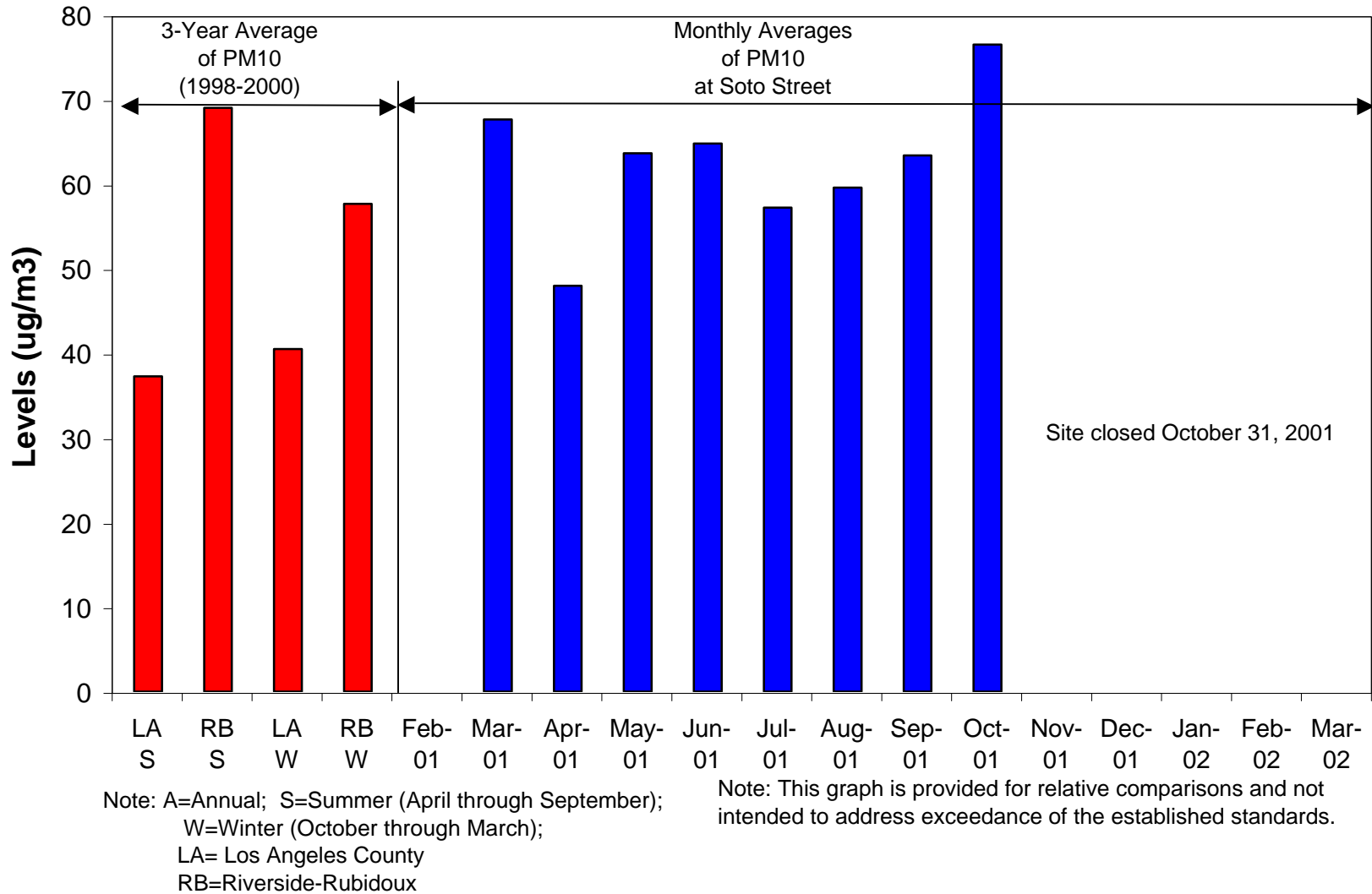


Figure 6