

Ozone - Grass Valley (Table 17)

Analysis of the thirteen years of data allows us to make some solid observations. During the last thirteen years the number of days with violations of the CAAQS and NAAQS has increased during hot summers and decreased somewhat during cooler summers, and the annual hourly mean appears to show some upward movement, although 2004 proved to be an exception to the trend. In 1993 there were only six days with exceedances of the CAAQS and no days with exceedances of the NAAQS, in 1995 there were 2 exceedances of the NAAQS, in 1996 there were 20 days with exceedances of the CAAQS. The El Niño effect may have lowered exceedance days in 1997 and 1998 to 8 and 12, respectively. It is interesting to note that the annual hourly average increased in 1997 despite the reduced exceedance days. The BSA experienced some very hot and stagnant days during the periods of exceedances in Grass Valley and the transported pollutants clearly impacted this area. 1999 set a record for days with exceedances of the 1-hour CAAQS and 8-hour NAAQS, much of it due to the influence of the many wildfires in nearby counties. Overall, the year 2003 shows relatively moderate levels of ozone, very similar to 2001 and 2002. In 2003 the maximum 8-hour average was less than in 2002, but there was an 8.9% increase in the number of separate 8-hour averages exceeding the NAAQS. This was in all likelihood due to the weather in 2003 more than any increase in precursor pollutants. There were also 20 separate days with exceedances of the State 1-hour standard and of 75 separate hours exceeding 9.5 pphm. Although during 2004 ozone values in Grass Valley were at their lowest in years, this was most likely due to favorable weather conditions. Urban areas throughout California and much of the US also experienced record low ozone levels. Although July and August in 2005 were slightly warmer than in a typical year, resulting in numerous ozone exceedances, those warm months were offset by the cooler than typical months of April, May, June, September and October. Cooler temperatures typically result in fewer ozone exceedances.

Long Term Outlook: Although efforts are being made to reduce the emissions inventory in the upwind BSA and downwind Grass Valley area, those reductions are largely offset by increases in population and vehicle miles traveled. Until the upwind BSA makes substantial gains in its precursor reduction program and State and Federally implemented control programs come into effect, we expect to see continued violations of both the NAAQS and CAAQS with some variability due to weather from year to year.