



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

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April 19, 2012

Jen Daugherty
Associate Planner
Town of Mammoth Lakes
P.O. Box 1609
Mammoth Lakes, CA 93546

RE: 2011-2012 Mammoth Lakes PM10 and Meteorological Summary

Dear Ms. Daugherty:

The Great Basin Unified Air Pollution Control District has monitored air quality in the Town of Mammoth Lakes since 1984. We recently finalized the data completing the 2011-2012 air monitoring year ending March 15, 2012. We are pleased to provide you this summary of air quality measurements recorded by GBUAPCD between March 16, 2011 and March 15, 2012.

During this period, federal PM10 standards ($150 \mu\text{g}/\text{m}^3$ for a 24-hour average) were not exceeded. However, state PM10 standards ($50 \mu\text{g}/\text{m}^3$ for a 24-hour average) were exceeded on five (5) days, as follows.

DATE	PM10 Average ($\mu\text{g}/\text{m}^3$)
*11/26/2011	51
12/1/2011	67
*12/17/2011	52
*1/28/2012	51
*3/3/2012	51

*-Denotes weekend or holiday exceedances.

For comparison purposes, there were twenty (25) exceedances between March 16, 2009 - March 15, 2010 and thirty-three (33) exceedances between March 16, 2010 - March 15, 2011. Attached are two graphs. The first graph shows daily average PM10 values during 2011-2012 with values from the previous two years in the background for timing comparison purposes. The second graph plots PM10 for March 16, 2009 – March 15, 2012 in sequence for trend analysis.

It is interesting to note that 4 out of the 5 exceedance days (80%) occurred on weekends or holidays. When compared to the 14 out of the 25 exceedance days (56%) occurring on weekends or holidays in 2009-2010, and to the 6 out of the 33 exceedance days (18%) in 2010-2011, this year was significantly more.

Examination of meteorological conditions on days experiencing higher PM10 values is useful for interpreting these results. The coldest hourly average temperatures were measured on the mornings of December 22, 2011 and March 7, 2012 at -15.8°C (3.6°F) and -15.1°C (4.8°F) respectively. Although these were not the days with the highest PM10 in 2011-2012, these periods of cold temperatures during the winter months following the passage of storm systems are accompanied by times of calm winds and elevated PM10. The five days that did exceed the state PM10 standard were cold with little wind activity. It is likely that the wood smoke and road cinder dust associated with anthropogenic activities and meteorological atmospheric inversion conditions contributed to relatively poor air quality on these days.

There were zero (0) days to exceed 100 µg/m³ in 2011-2012 and zero (0) days in exceedance of the state PM10 standard measured above 75 µg/m³. This is a significant improvement to years past and air breathers of the Mammoth Lakes community benefit.

Please contact me with any questions you may have.

Thank you,



Theodore D. Schade
Air Pollution Control Officer

Enc.

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Town of Mammoth Lakes - PM10

March 16, 2011 - March 15, 2012

— Federal PM10 Standard State PM10 Standard - - - 09-10 PM10 Daily Average — 10-11 PM10 Daily Average —●— 11-12 PM10 Daily Average



