



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
760-872-8211 Fax: 760-872-6109

April 27, 2016

Nolan Bobroff
Assistant Planner
Town of Mammoth Lakes
P.O. Box 1609
Mammoth Lakes, CA 93546

RE: 2015-2016 Mammoth Lakes PM10 and Meteorological Summary

Dear Mr. Bobroff:

The Great Basin Unified Air Pollution Control District (GBUAPCD) has monitored air quality in the Town of Mammoth Lakes (Town) since 1984. We recently finalized the data completing the 2015-2016 air monitoring year ending March 15, 2016. We are pleased to provide you this summary of air quality measurements recorded by GBUAPCD between March 16, 2015 and March 15, 2016.

During this period, the federal PM10 standard ($150 \mu\text{g}/\text{m}^3$ for a 24-hour average) was never exceeded. State PM10 standards ($50 \mu\text{g}/\text{m}^3$ for a 24-hour average) were exceeded on nineteen (19) days. Eight (8) of these State exceedances were due to wildfire smoke impacts from the Rough Fire. There were eleven (11) exceedances of the State standard during the winter months. Exceedance days and PM10 levels are listed in the Table 1 for the 2015-2016 air monitoring year. An exceedance summary comparing the 2015-2016 monitoring year with the past seven (7) years is shown in Table 2.

Elevated PM10 levels from wildfire smoke during the summer months of 2015 were the cause of nearly half of the State exceedances during this monitoring year. The Rough Fire was ignited by lightning on July 31, 2015. It was located due south of the Town in the Sierra and Sequoia National Forests, and Kings Canyon National Park, east of Fresno (See map on Figure 1). Due to prevailing southerly winds during this time of year, smoke from the Rough Fire impacted the Town nearly continuously from August through mid-September. The Town did not experience relief until winds shifted to westerly and the fire came under increased control. Prior to the Rough Fire, smoke from the Willow Fire impacted the Town in late July, though not enough to result in a State exceedance.

Figure 2 shows the daily average PM10 values between July and September 2015, highlighting the days impacted by wildfire smoke. Figure 3 shows the daily average PM10 values for the entire monitoring year, superimposed on the prior two monitoring years for comparative purposes.

The Rough Fire was the largest wildfire in California in 2015. At 151,623 acres, the fire ranks as the thirteenth (13th) largest fire in recorded in California. Figure 4 shows that historically, large-scale wildfires in the Mammoth Lakes area have been relatively infrequent events, though the past three summers have been impacted by wildfire smoke. The figure shows the daily average PM10 during July-September for years since 1992. Prior to the Rough Fire in 2015, the Town was impacted by significant smoke from the French and King Fires in 2014, and the Aspen and Rim Fires in 2013. The figure indicates wildfire smoke has impacted the Town in nine (9) summers since 1992 and each of the past three (3) summers.

Please contact me with any questions you may have.

Thank you,

A handwritten signature in blue ink, appearing to read "Phillip L. Kiddoo", with a long horizontal flourish extending to the right.

Phillip L. Kiddoo
Air Pollution Control Officer

Table 1. Town of Mammoth Lakes State PM10 exceedances: March 16, 2015 - March 15, 2016.

Date	PM10 Average ($\mu\text{g}/\text{m}^3$)
**8/11/2015	56
**8/23/2015	57
**8/24/2015	51
**8/29/2015	60
**9/2/2015	59
**9/7/2015	85
**9/12/2015	71
**9/13/2015	75
12/2/2015	50
12/5/2015	62
1/1/2016	70
1/11/2016	66
1/21/2016	53
1/27/2016	58
2/4/2016	56
2/5/2016	63
2/6/2016	71
2/9/2016	58
2/10/2016	53
**Denotes wildfire smoke.	

Table 2. Comparison of Federal and State PM10 exceedances with the prior seven monitoring years.

Air Monitoring Year	Federal PM10 Exceedances (>150 $\mu\text{g}/\text{m}^3$)	State PM10 Exceedances (>50 $\mu\text{g}/\text{m}^3$)
09-10	0	25
10-11	0	33
11-12	0	5
12-13	0	19
13-14	2	15
14-15	0	3
15-16	0	19



Figure 1. Location of the Rough Fire, after full containment in late Fall 2015.

Summer 2015 Wildfire Smoke impacts on the Town of Mammoth Lakes

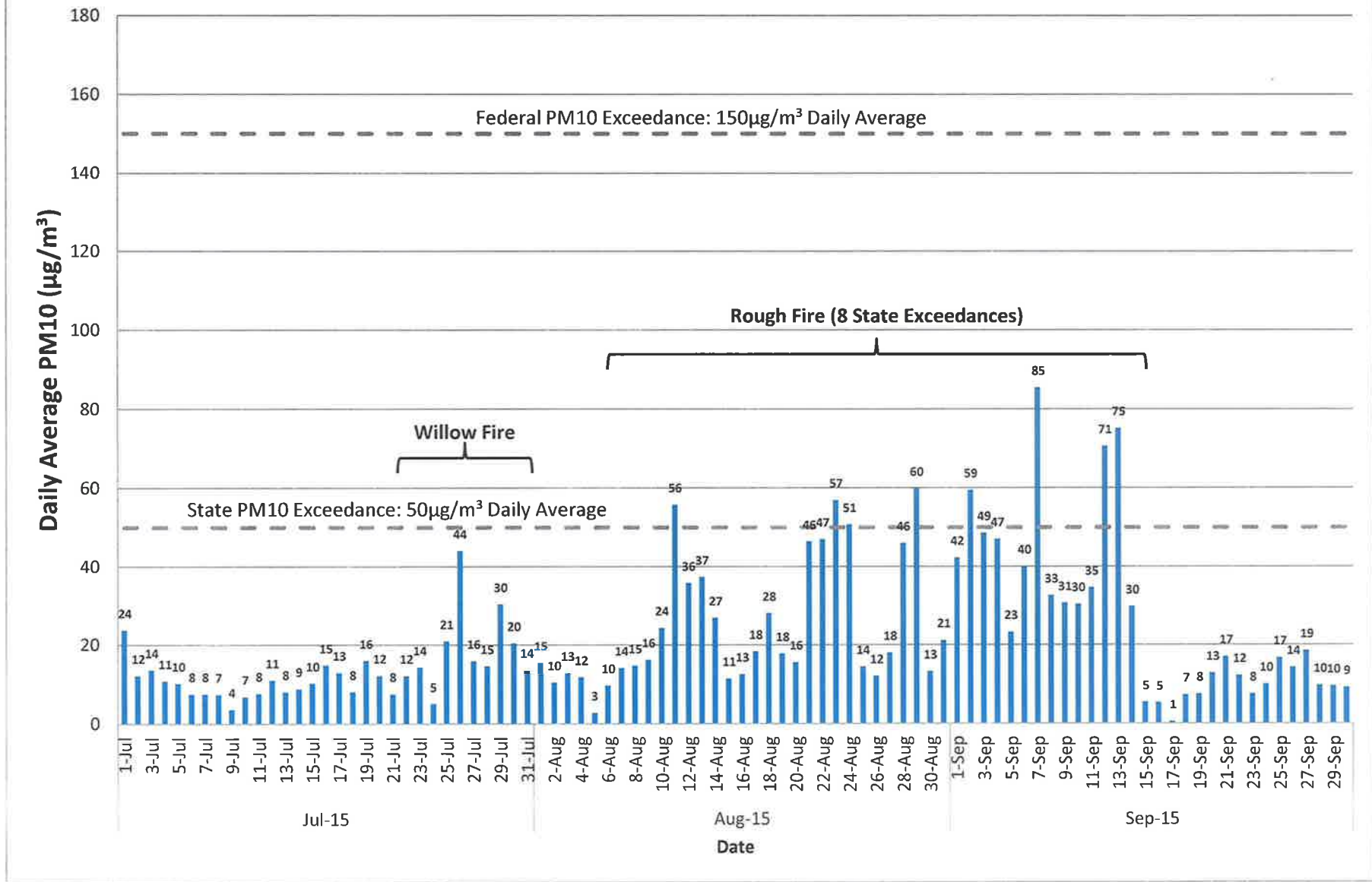


Figure 2: Summer 2015 Wildfire Smoke Impacts on the Town of Mammoth Lakes.



Town of Mammoth Lakes - PM10

March 16, 2015 - March 15, 2016

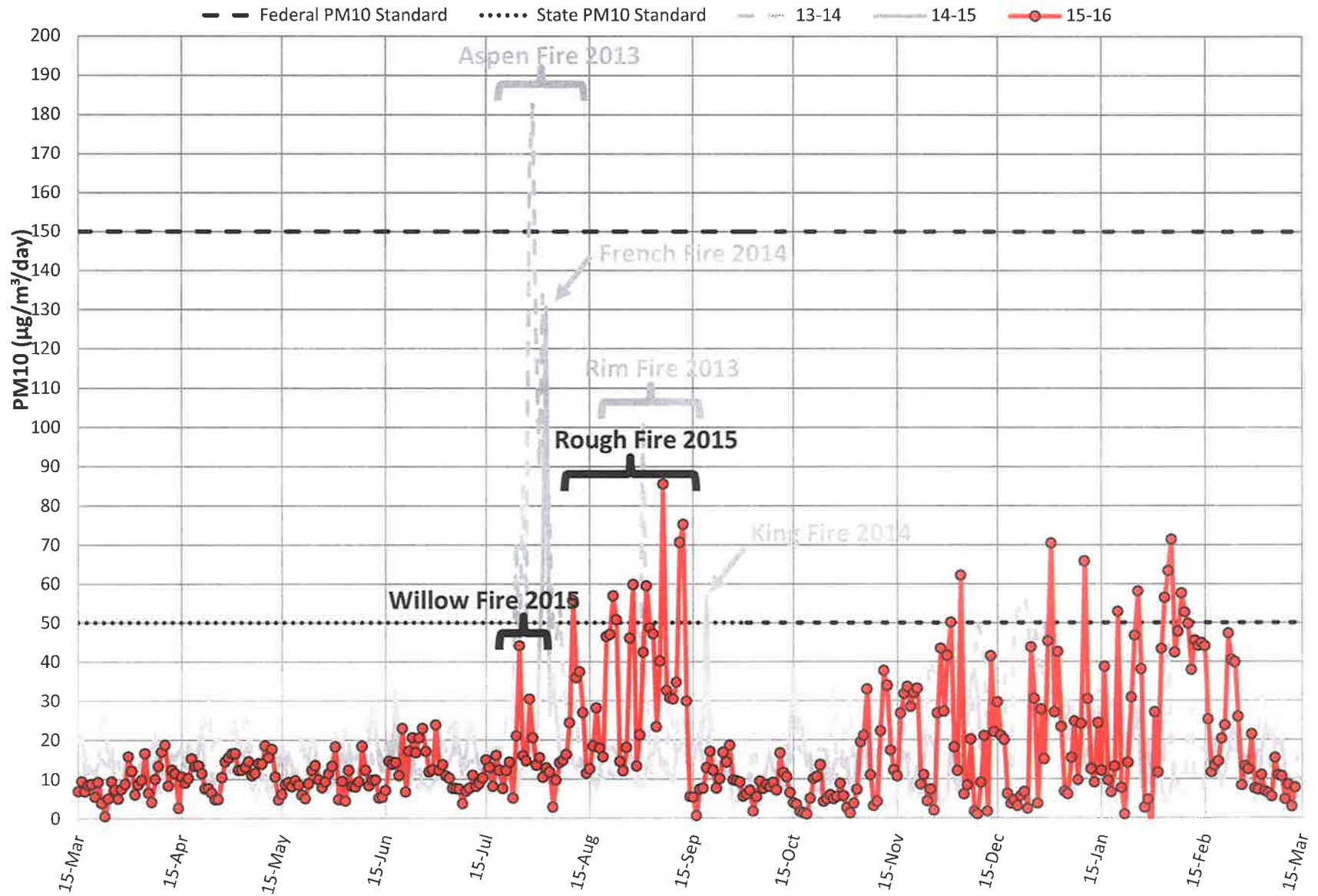


Figure 3: Town of Mammoth Lakes - PM10, March 16, 2015 - March 15, 2016.

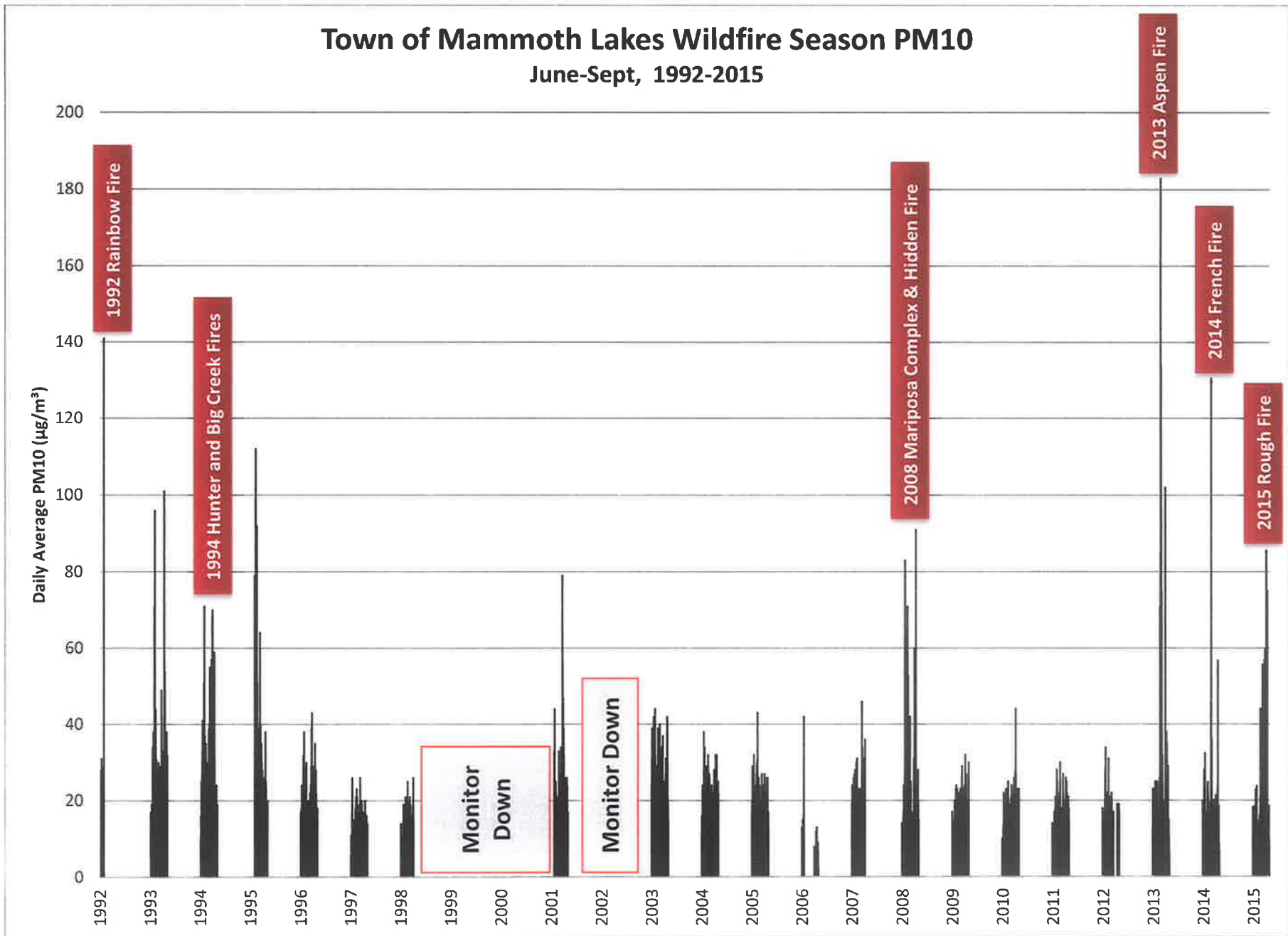


Figure 4: Town of Mammoth Lakes Wildfire Season PM10, June-September, 1992-2015.