



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

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April 27, 2017

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

RE: 2016-2017 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 2016-2017 air monitoring year ending March 15, 2017. We are pleased to provide you this summary of air quality measurements recorded by GBUAPCD between March 16, 2016 and March 15, 2017.

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. One (1) of these State exceedances was due to wildfire smoke impacts from the Owens River Fire on September 18, 2016. There were eighteen (18) exceedances of the State standard during the winter months. Exceedance days and PM10 levels are listed in the Table 1 for the 2016-2017 air monitoring year. An exceedance summary comparing the 2016-2017 monitoring year with the past seven (7) years is shown in Table 2.

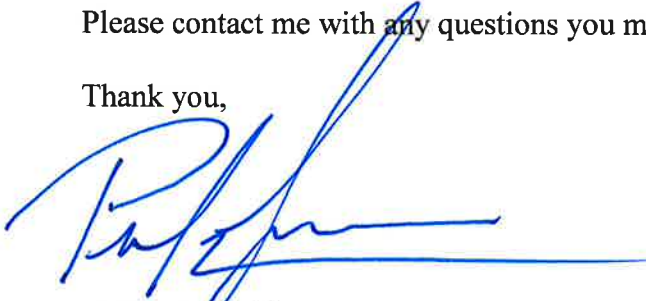
Elevated PM10 levels from wildfire smoke during the summer months of 2016 were the cause of one State exceedance during this monitoring year. The Owens River Fire started September 17, 2016, north of the Owens River Road near Clark Canyon, east of Highway 395, approximately seven miles northeast of the Town of Mammoth Lakes. The fire burned 5,443 acres (see map on Figure 1) of sagebrush and Jeffrey pine, resulting in a dense smoke plume visible at great distance (See photo on Figure 2). Though prevailing winds were from the west, wind speed was reduced to near zero the evening of 9/17/2016 and by the morning hours of 9/18/2016, smoke from the fire settled in the Town, resulting in three significant hourly PM10 spikes above $300 \mu\text{g}/\text{m}^3$ between 04:00 and 06:00.

Figure 3 shows the daily average PM10 values between July and September 2016, highlighting the day impacted by the Owens River Fire. Figure 4 shows the daily average PM10 values for the entire monitoring year, superimposed on the prior three monitoring years for comparative purposes.

Figure 5 shows that historically, large-scale wildfires in the Mammoth Lakes area have been relatively infrequent events, though the past four summers have been impacted by wildfire smoke. The figure shows the daily average PM10 during July-September for years since 1992. Prior to the Owens River Fire in 2016, the Town was impacted by significant smoke from the Rough Fire in 2015, 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 ten (10) summers since 1992 and each of the past four (4) 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 line extending to the right.

Phillip L. Kiddoo
Air Pollution Control Officer

Table 1. Town of Mammoth Lakes State PM10 exceedances: March 16, 2016 - March 15, 2017.

Date	PM10 Average ($\mu\text{g}/\text{m}^3$)
**9/18/2016	124
12/21/2016	54
12/26/2016	54
12/28/2016	62
12/29/2016	70
1/16/2017	59
1/17/2017	62
1/27/2017	70
1/28/2017	72
1/29/2017	71
1/30/2017	80
2/13/2017	67
2/14/2017	72
2/15/2017	78
3/1/2017	68
3/2/2017	80
3/3/2017	62
3/9/2017	56
3/11/2017	65
**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
16-17	0	19



Owens River Fire Inyo National Forest

Public Information Map September 24, 2016

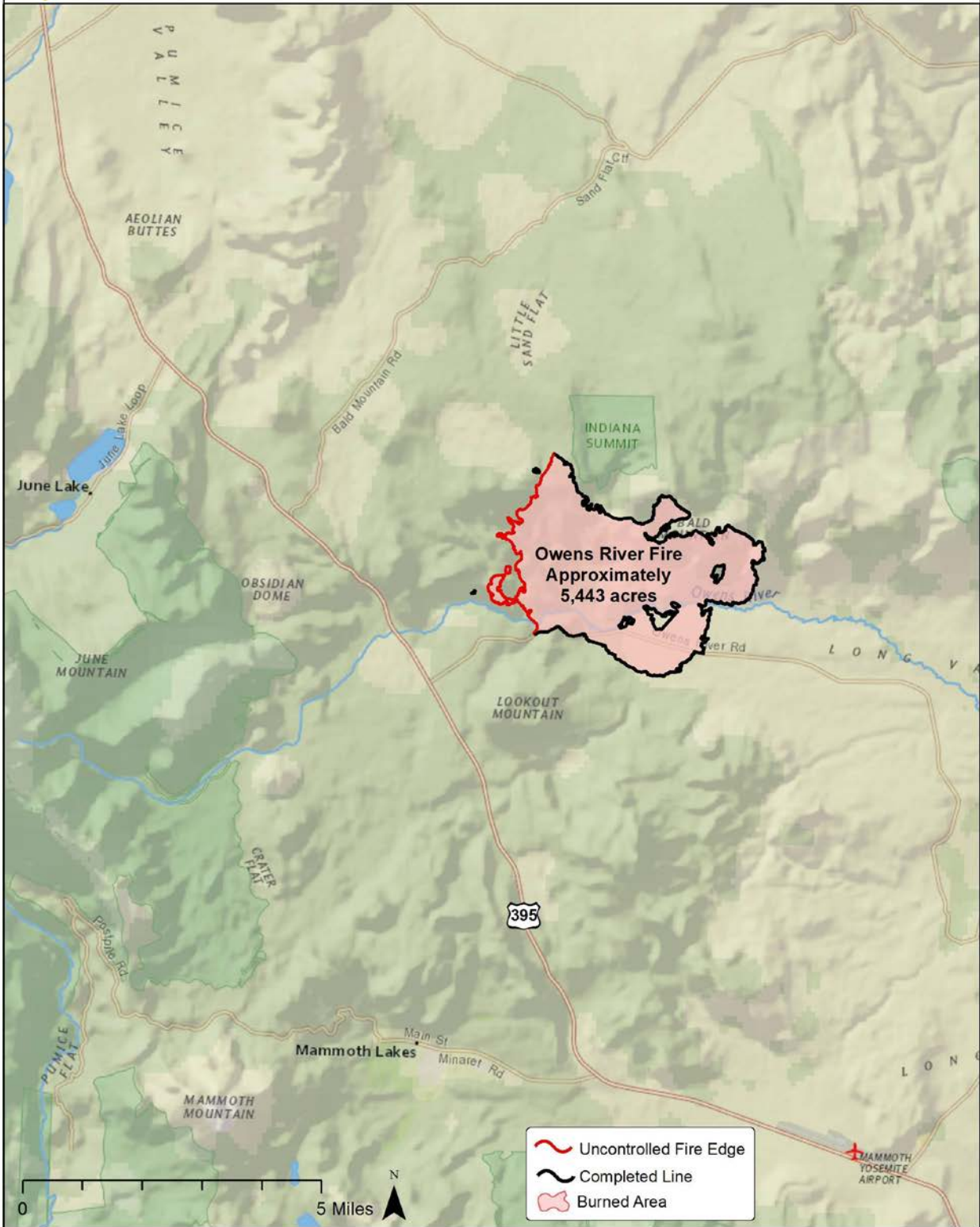


Figure 1. Location and approximate size of the Owens River Fire.



Figure 2. View of the Owens River Fire from near Mammoth Rock, September 17, 2016.

Summer 2016 Wildfire Smoke impacts on the Town of Mammoth Lakes

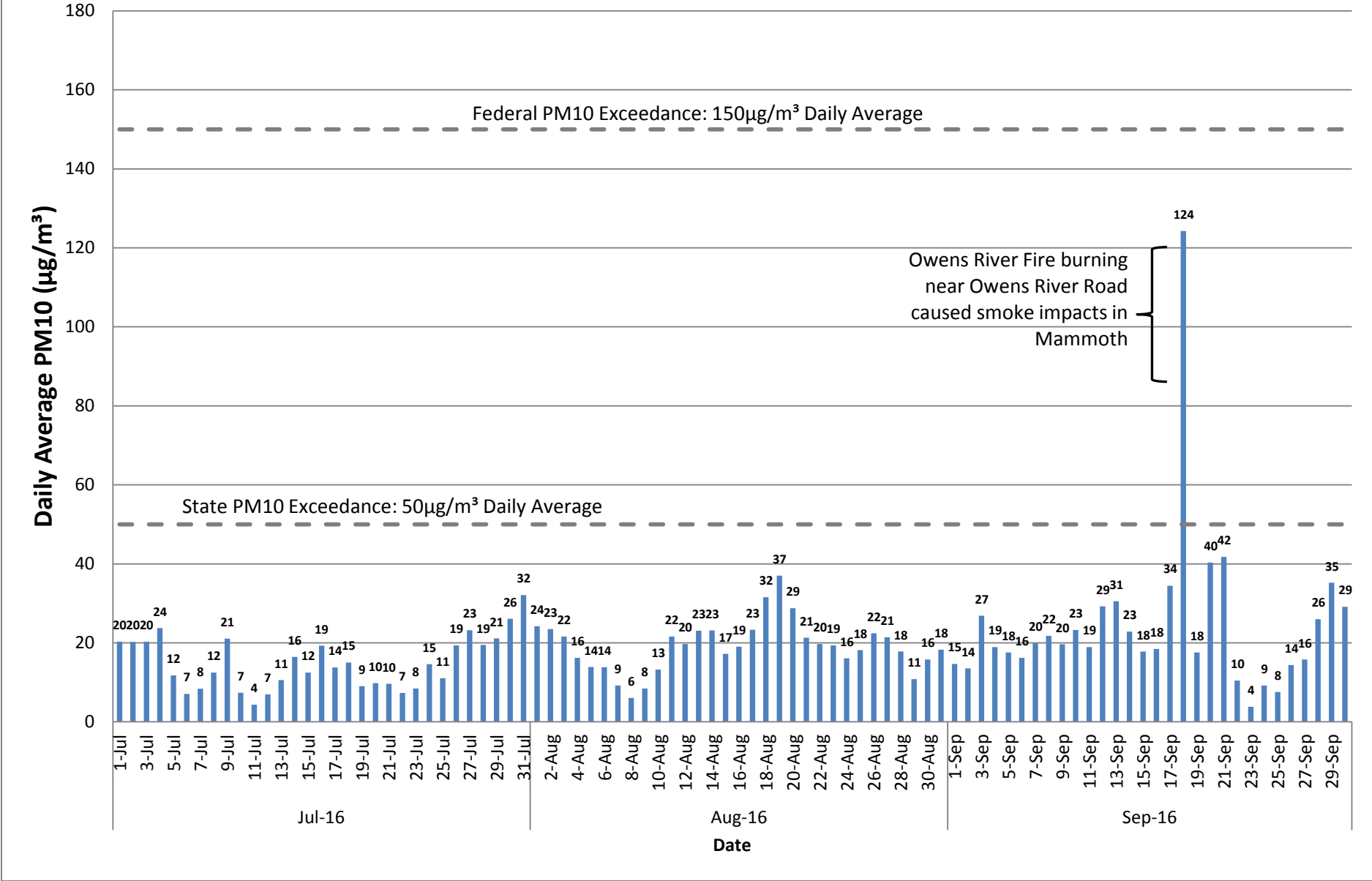


Figure 3: Summer 2016 Wildfire Smoke Impacts on the Town of Mammoth Lakes.



Town of Mammoth Lakes - PM10

March 16, 2016 - March 15, 2017

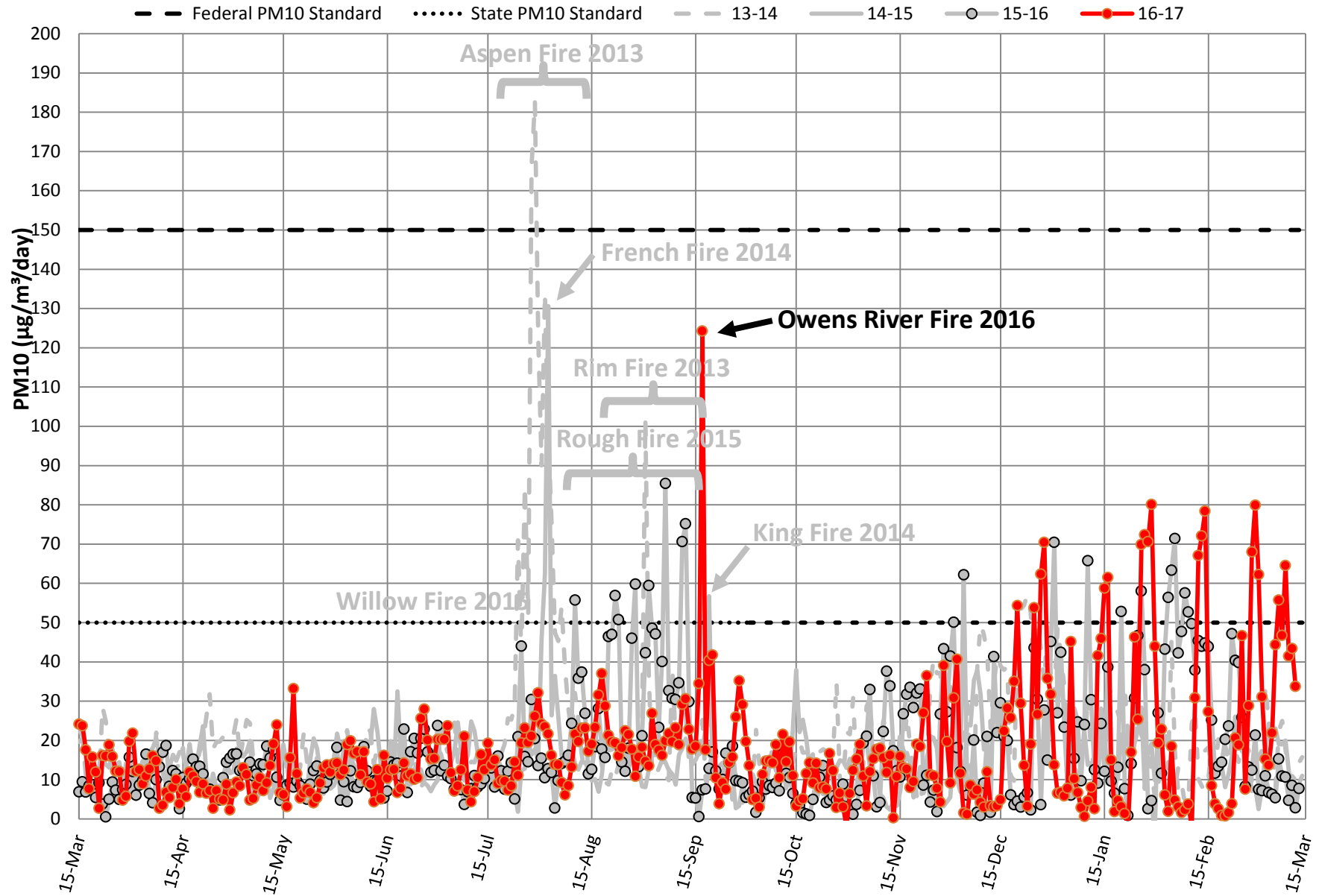


Figure 4: Town of Mammoth Lakes - PM10, March 16, 2016 - March 15, 2017.

Town of Mammoth Lakes Wildfire Season PM10 June-September, 1992-2016

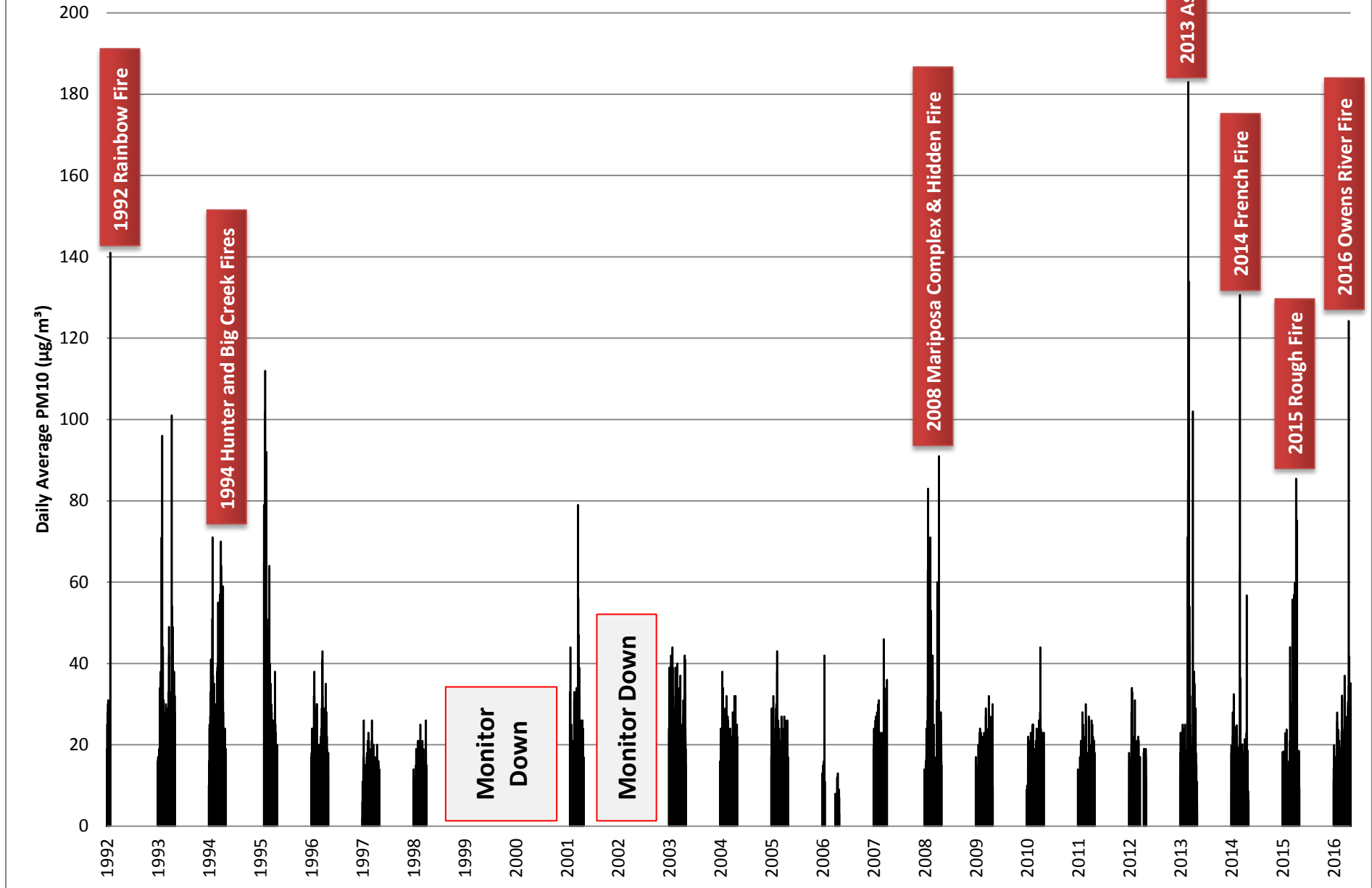


Figure 5: Town of Mammoth Lakes Wildfire Season PM10, June-September, 1992-2016.