

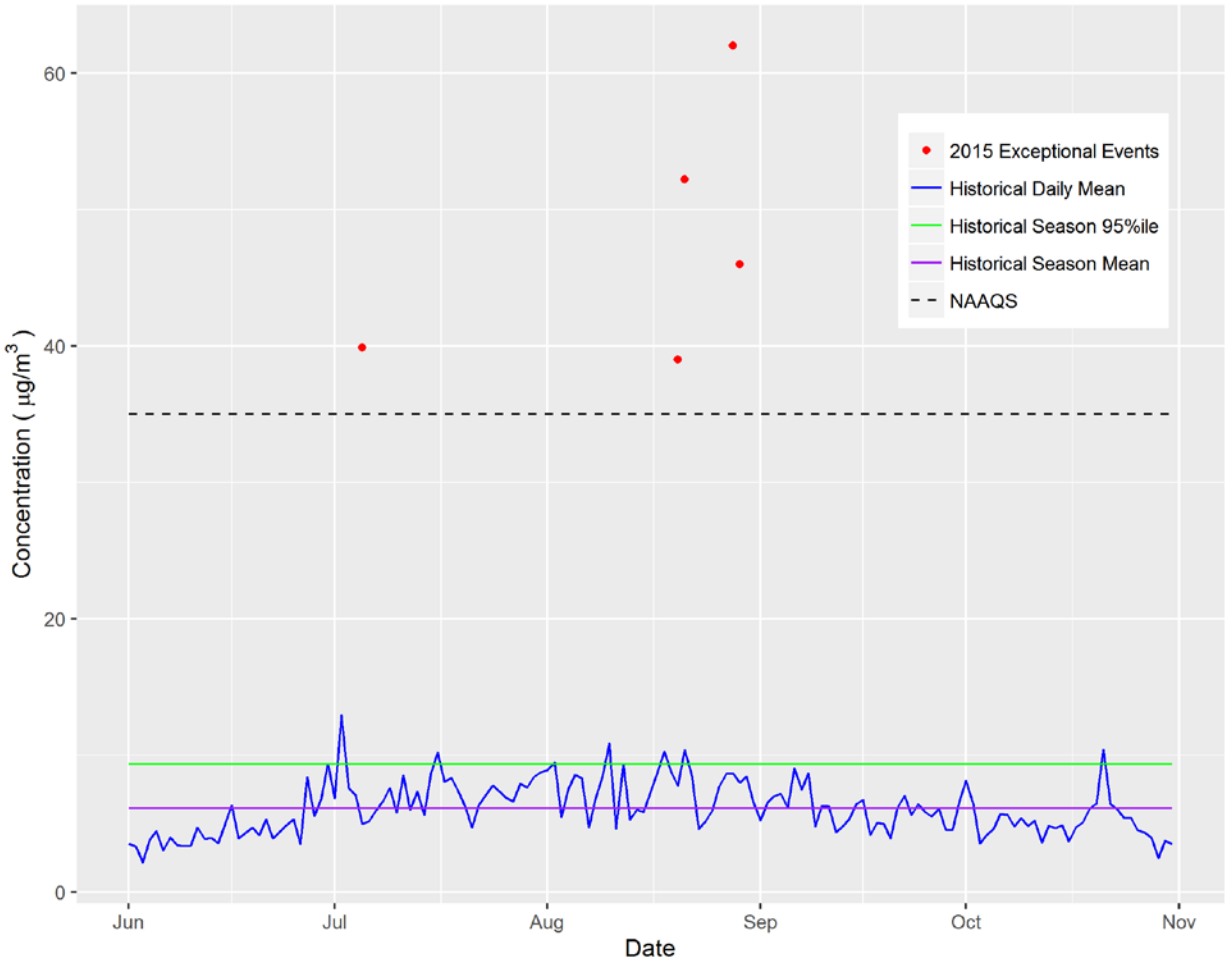
## HISTORICAL GRAPHS FOR 2015 PM<sub>2.5</sub> EXCEPTIONAL EVENTS

The graphs shown here compare the exceptional events for a monitoring station with the daily average value for that day. This data was created by extracting historical data at each station, removing all null and flagged data, and then developing an average daily value. The daily average and corresponding mean and 95 percentile information is shown for the wildfire season only (June 1 – October 31). The following table outlines the available data for each station.

Station	Years Used for Historical Data	Notes
<b>Birney</b>	2010 - 2014	Data prior to 2010 is not available. Monitoring began at this station on 02/02/2010.
<b>Broadus</b>	2010 - 2014	Data prior to 2010 is not available. Monitoring began at this station on 01/01/2010.
<b>Butte</b>	2009 - 2014	Data prior to 2010 is not available. Continuous monitoring began at this station on 03/19/2010.
<b>Flathead</b>	2011 - 2014	Data prior to 2011 is not available. Continuous monitoring began at this station on 8/27/2011.
<b>Frenchtown</b>	2009 - 2014	Monitoring began at this station on 04/08/2009.
<b>Hamilton</b>	2009 - 2014	Full continuous monitor data available
<b>Helena</b>	2009 - 2014	Monitoring began at this station on 08/04/2009.
<b>Lewistown</b>	2012 - 2014	Data prior to 2012 is not available. Monitoring began at the station on 07/25/2012.
<b>Libby</b>	2009 - 2014	Full continuous monitor data available. Prior to 2011, continuous monitor data was collected in conjunction with filter based data and both were submitted to AQS. Only continuous data is used for this analysis.
<b>Malta</b>	2012 - 2014	Data prior to 2012 is not available. Monitoring began at the station on 07/24/2012.
<b>Missoula</b>	2009 - 2014	Full continuous monitor data available
<b>Ncore</b>	2011 - 2014	Data prior to 2011 is not available. Monitoring began at this station on 01/01/2011.
<b>Sidney</b>	2009 - 2014	Full continuous monitor data available

## Birney

### Historical PM2.5 Data for Birney Compared to 2015 Exceptional Events

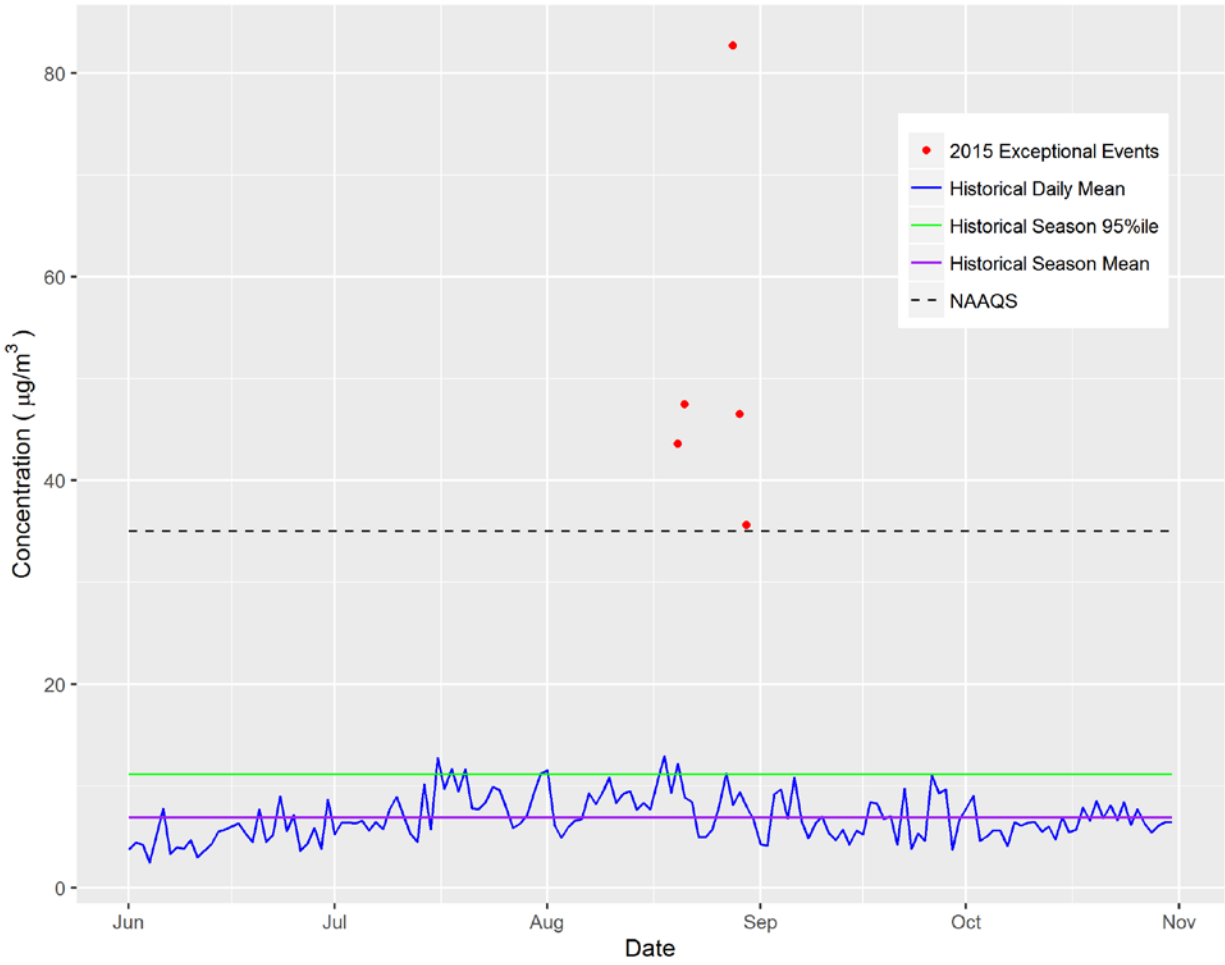


#### EXCEPTION EVENTS FOR BIRNEY

Date	Concentration
7/5/2015	39.9
8/20/2015	39.0
8/21/2015	52.2
8/28/2015	62.0
8/29/2015	46.0

## Broadus

### Historical PM2.5 Data for Broadus Compared to 2015 Exceptional Events

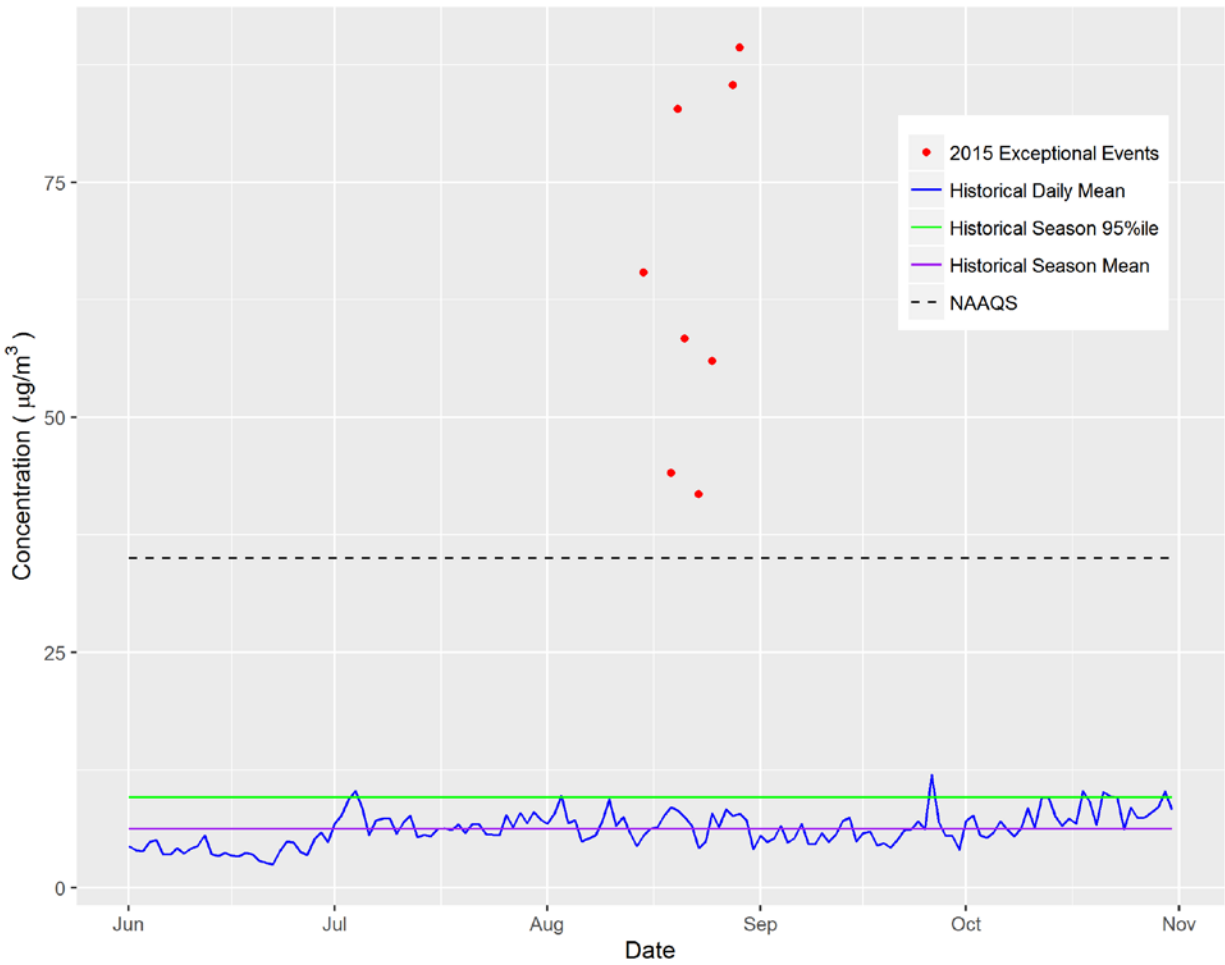


#### EXCEPTION EVENTS FOR BROADUS

Date	Concentration
8/20/2015	43.6
8/21/2015	47.5
8/28/2015	82.7
8/29/2015	46.5
8/30/2015	35.6

## Butte

### Historical PM2.5 Data for Butte Compared to 2015 Exceptional Events



#### EXCEPTION EVENTS FOR BUTTE

Date	Concentration
8/15/2015	65.4
8/19/2015	44.1
8/20/2015	82.8
8/21/2015	58.4
8/23/2015	41.8
8/25/2015	56.0
8/28/2015	85.3
8/29/2015	89.3

## Flathead

Historical PM2.5 Data for Flathead Valley Compared to 2015 Exceptional Events



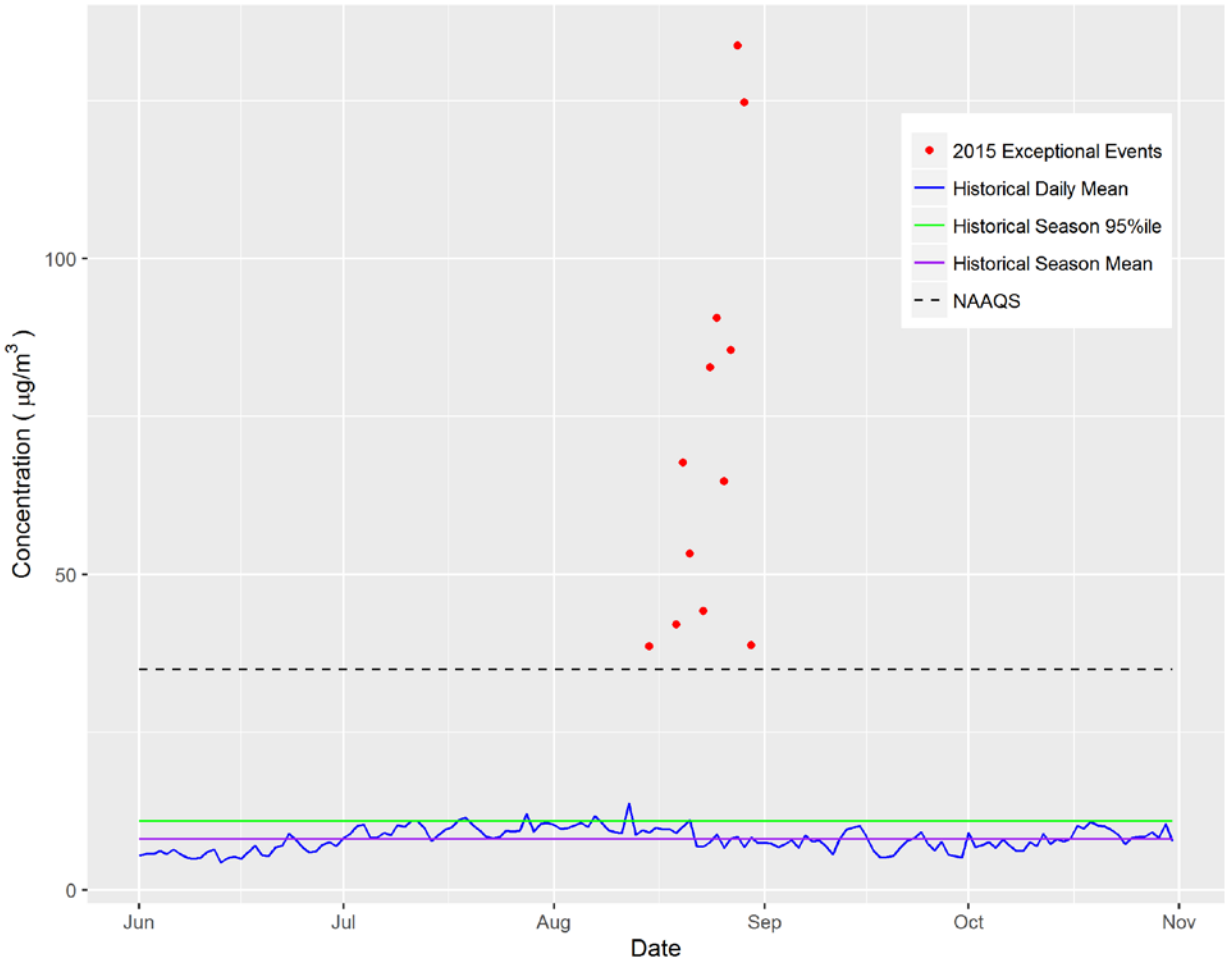
### EXCEPTION EVENTS FOR FLATHEAD\*

Date	Concentration
8/19/2015	41.4
8/20/2015	106.5
8/21/2015	73.7
8/23/2015	95.4
8/24/2015	111.2
8/25/2015	85.7
8/26/2015	91.1
8/27/2015	104.4
8/28/2015	97.7
8/29/2015	77.6

\* The 'Flathead' monitor refers to the PM2.5 monitor located in Columbia Falls, MT. When referenced in wildfire smoke updates, and in this document, it is called Flathead to match the label on the Montana DEQ Today's Air Website.

## Frenchtown

Historical PM2.5 Data for Frenchtown Compared to 2015 Exceptional Events

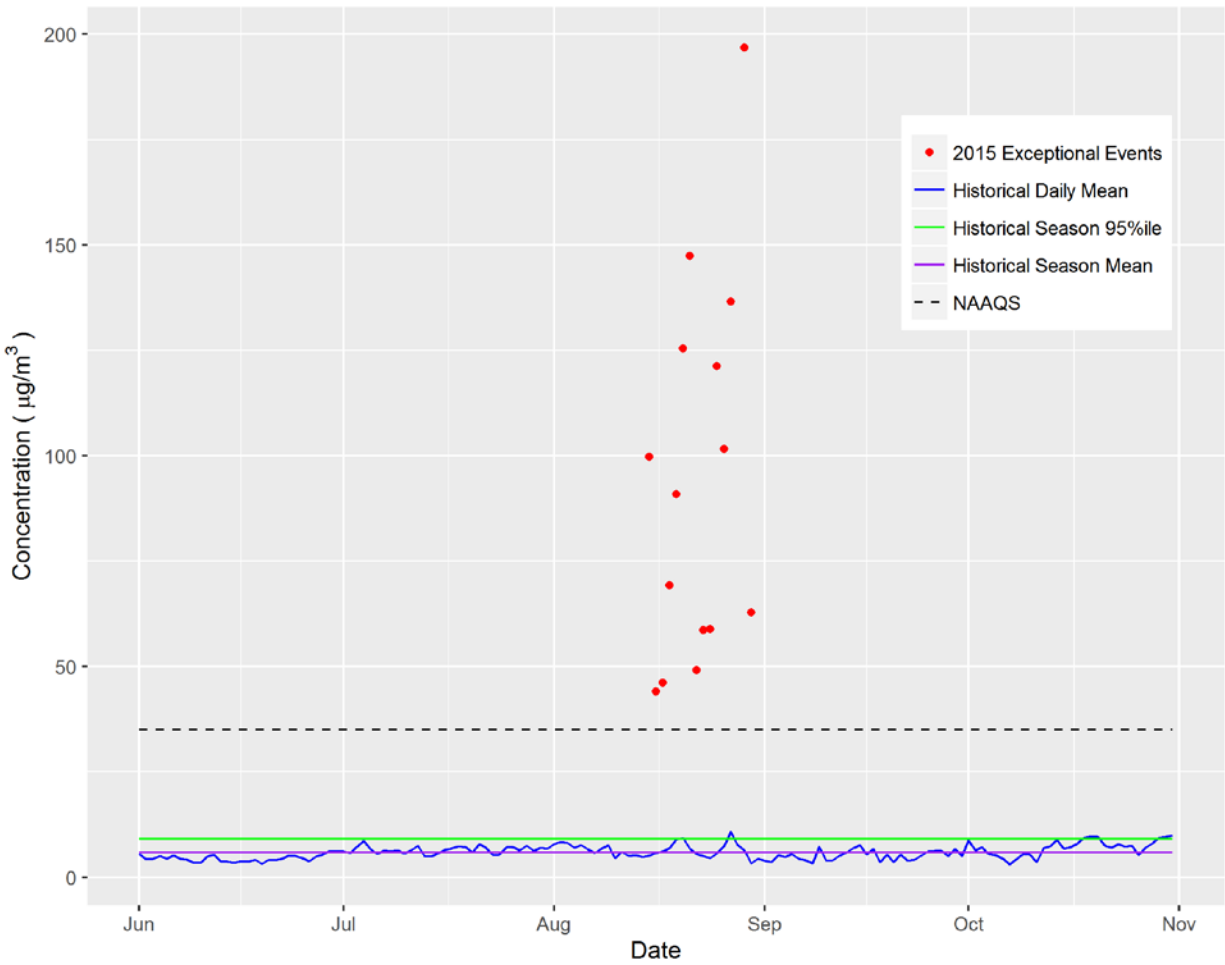


### EXCEPTION EVENTS FOR FRENCHTOWN

Date	Concentration
8/15/2015	38.6
8/19/2015	42.1
8/20/2015	67.7
8/21/2015	53.3
8/23/2015	44.2
8/24/2015	82.8
8/25/2015	90.6
8/26/2015	64.7
8/27/2015	85.5
8/28/2015	133.7
8/29/2015	124.7
8/30/2015	38.8

## Hamilton

Historical PM2.5 Data for Hamilton Compared to 2015 Exceptional Events

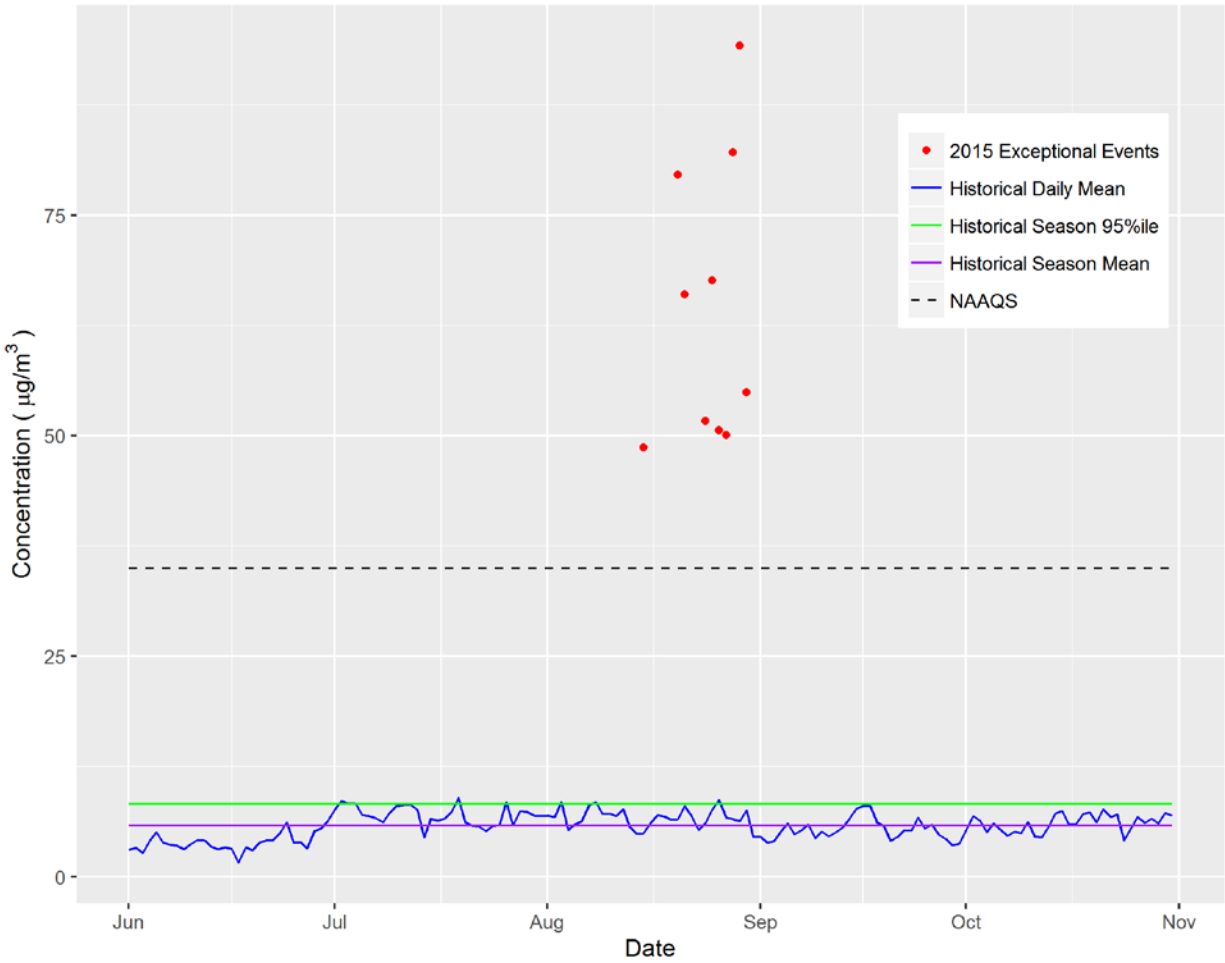


### EXCEPTION EVENTS FOR HAMILTON

Date	Concentration
8/15/2015	99.8
8/16/2015	44.0
8/17/2015	46.2
8/18/2015	69.2
8/19/2015	90.9
8/20/2015	125.4
8/21/2015	147.4
8/22/2015	49.1
8/23/2015	58.6
8/24/2015	58.9
8/25/2015	121.3
8/26/2015	101.6
8/27/2015	136.6
8/29/2015	196.8
8/30/2015	62.8

## Helena

Historical PM2.5 Data for Helena Compared to 2015 Exceptional Events



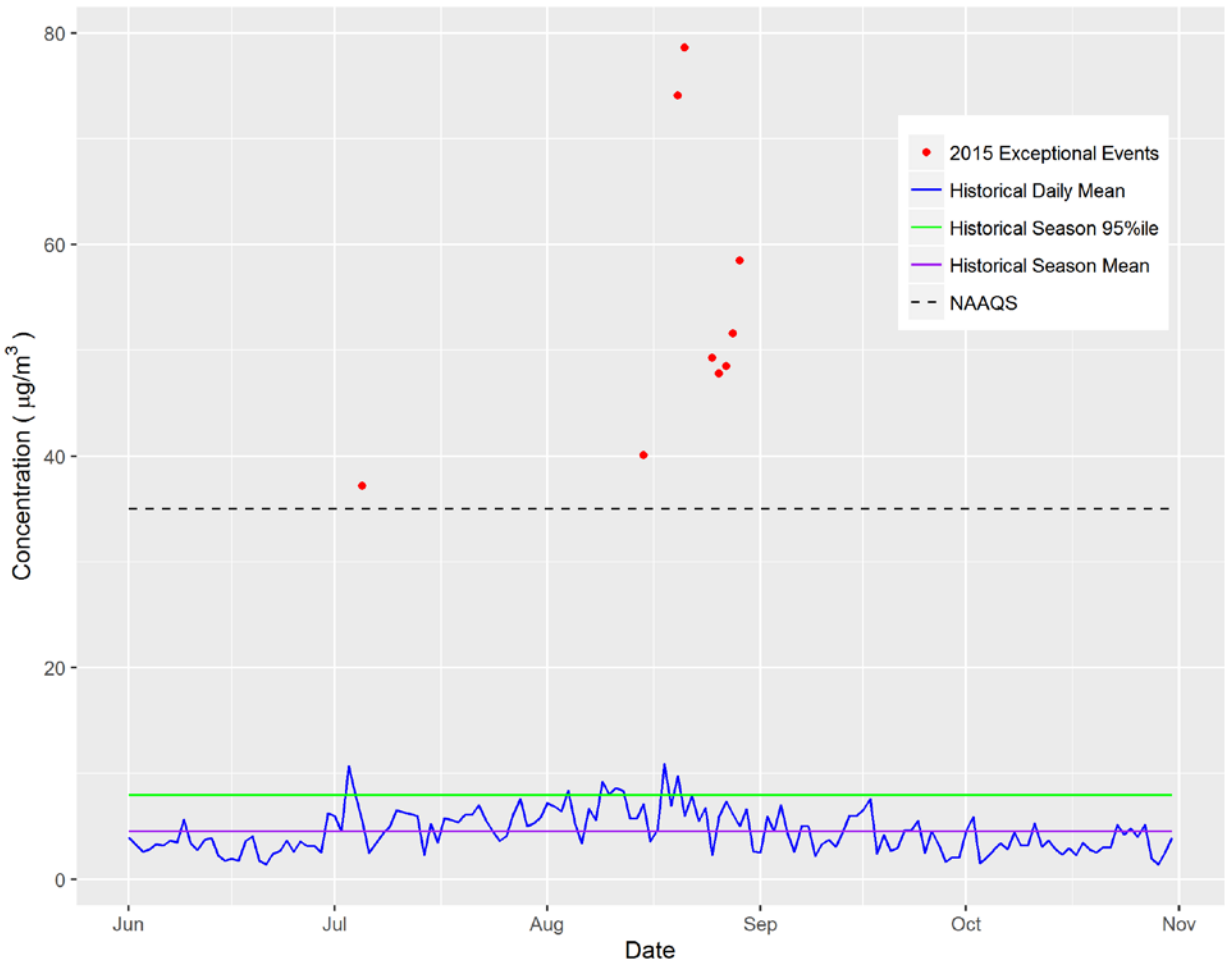
### EXCEPTION EVENTS FOR HELENA

Date	Concentration
8/15/2015	48.7
8/20/2015	79.6
8/21/2015	66.0
8/24/2015	51.7
8/25/2015	67.6
8/26/2015	50.6
8/27/2015	50.1
8/28/2015	82.1
8/29/2015	94.2
8/30/2015	54.9



## Lewistown

Historical PM2.5 Data for Lewistown Compared to 2015 Exceptional Events

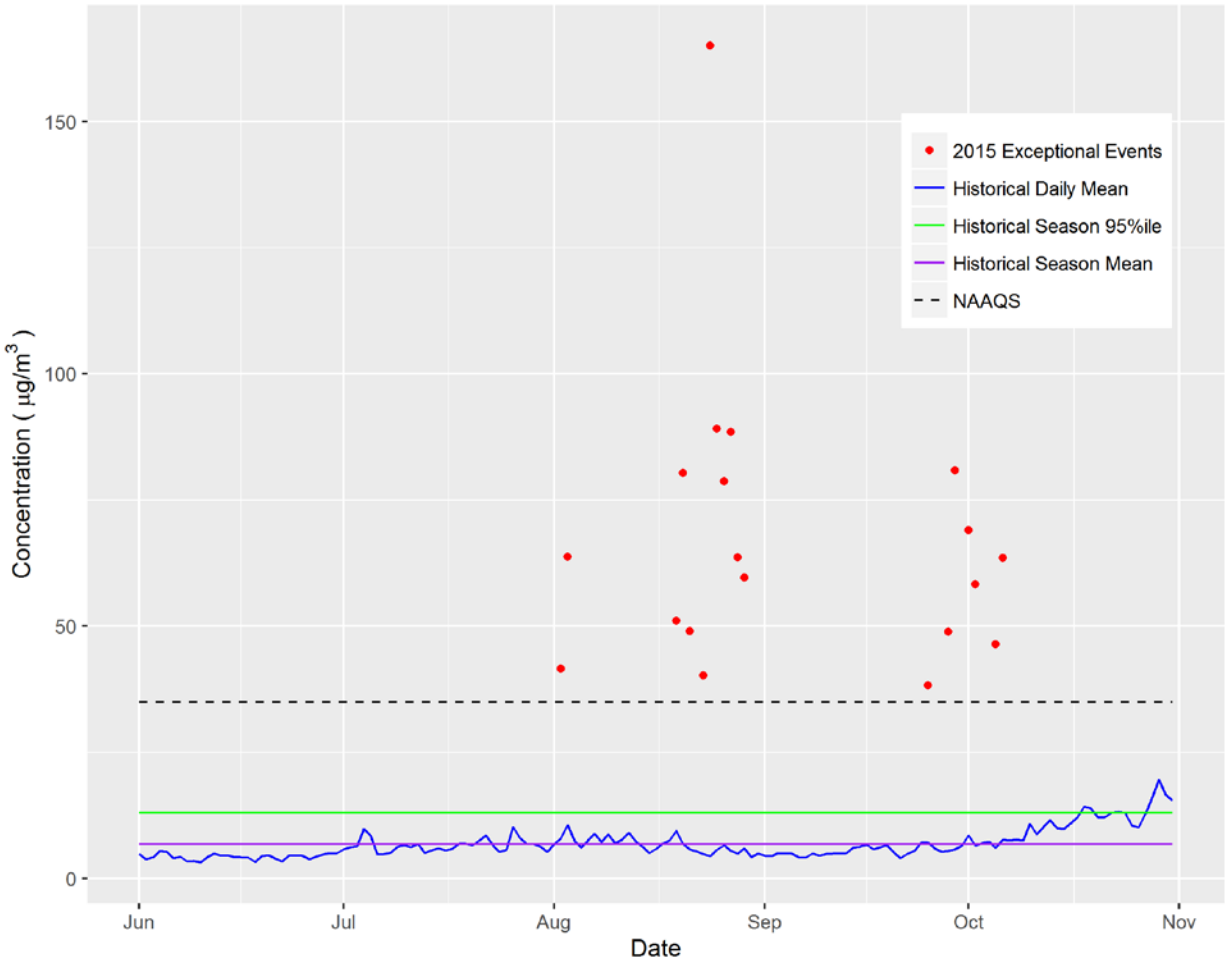


### EXCEPTION EVENTS FOR LEWISTOWN

Date	Concentration
7/5/2015	37.2
8/15/2015	40.1
8/20/2015	74.1
8/21/2015	78.6
8/25/2015	49.3
8/26/2015	47.8
8/27/2015	48.5
8/28/2015	51.6
8/29/2015	58.5

## Libby

Historical PM2.5 Data for Libby Compared to 2015 Exceptional Events

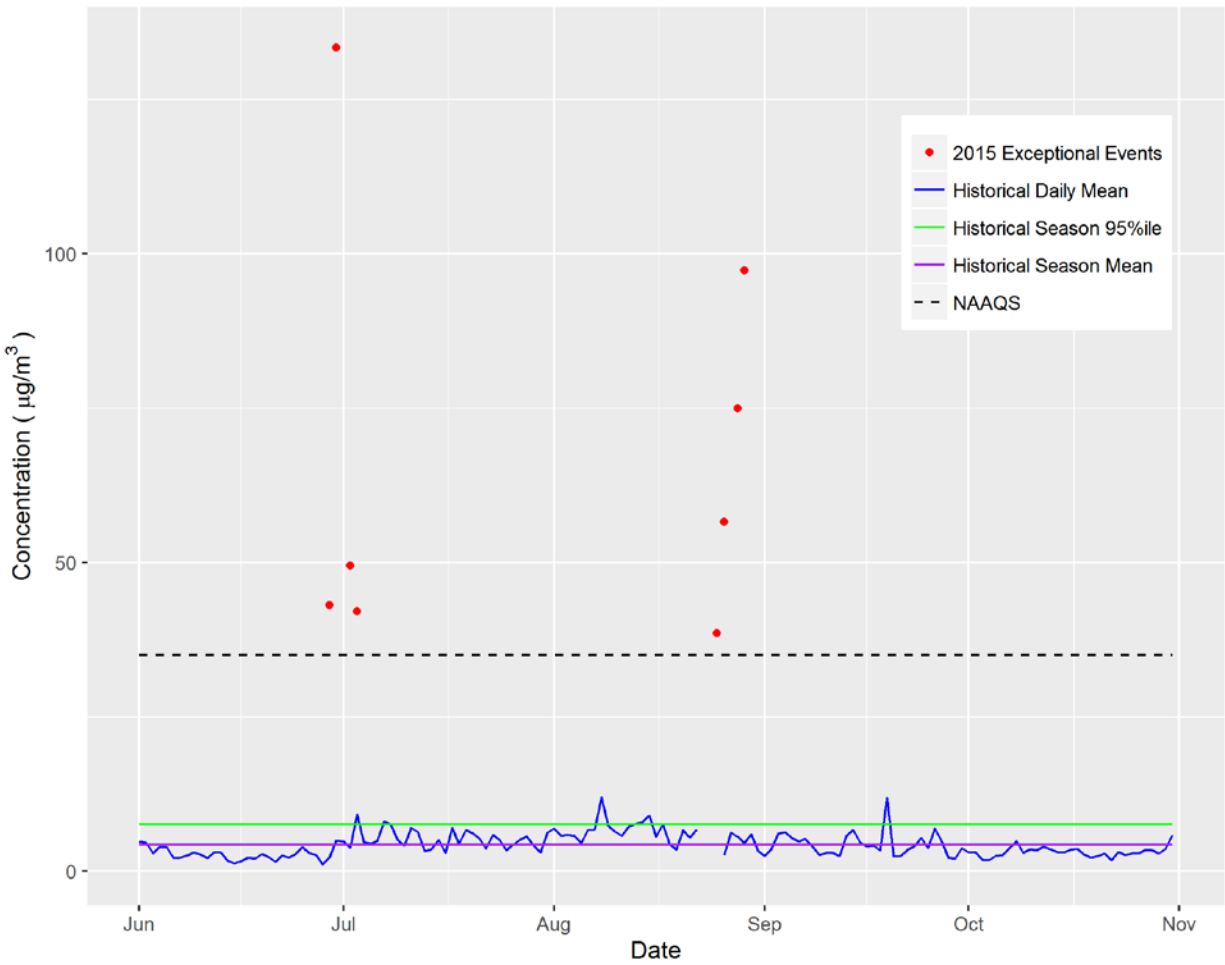


### EXCEPTION EVENTS FOR LIBBY

Date	Concentration	Date	Concentration
8/2/2015	41.6	8/28/2015	63.6
8/3/2015	63.7	8/29/2015	59.6
8/19/2015	51.1	9/25/2015	38.3
8/20/2015	80.4	9/28/2015	48.9
8/21/2015	49.0	9/29/2015	80.9
8/23/2015	40.2	10/1/2015	69.0
8/24/2015	165.0	10/2/2015	58.3
8/25/2015	89.1	10/5/2015	46.4
8/26/2015	78.7	10/6/2015	63.5
8/27/2015	88.5		

## Malta

Historical PM2.5 Data for Malta Compared to 2015 Exceptional Events

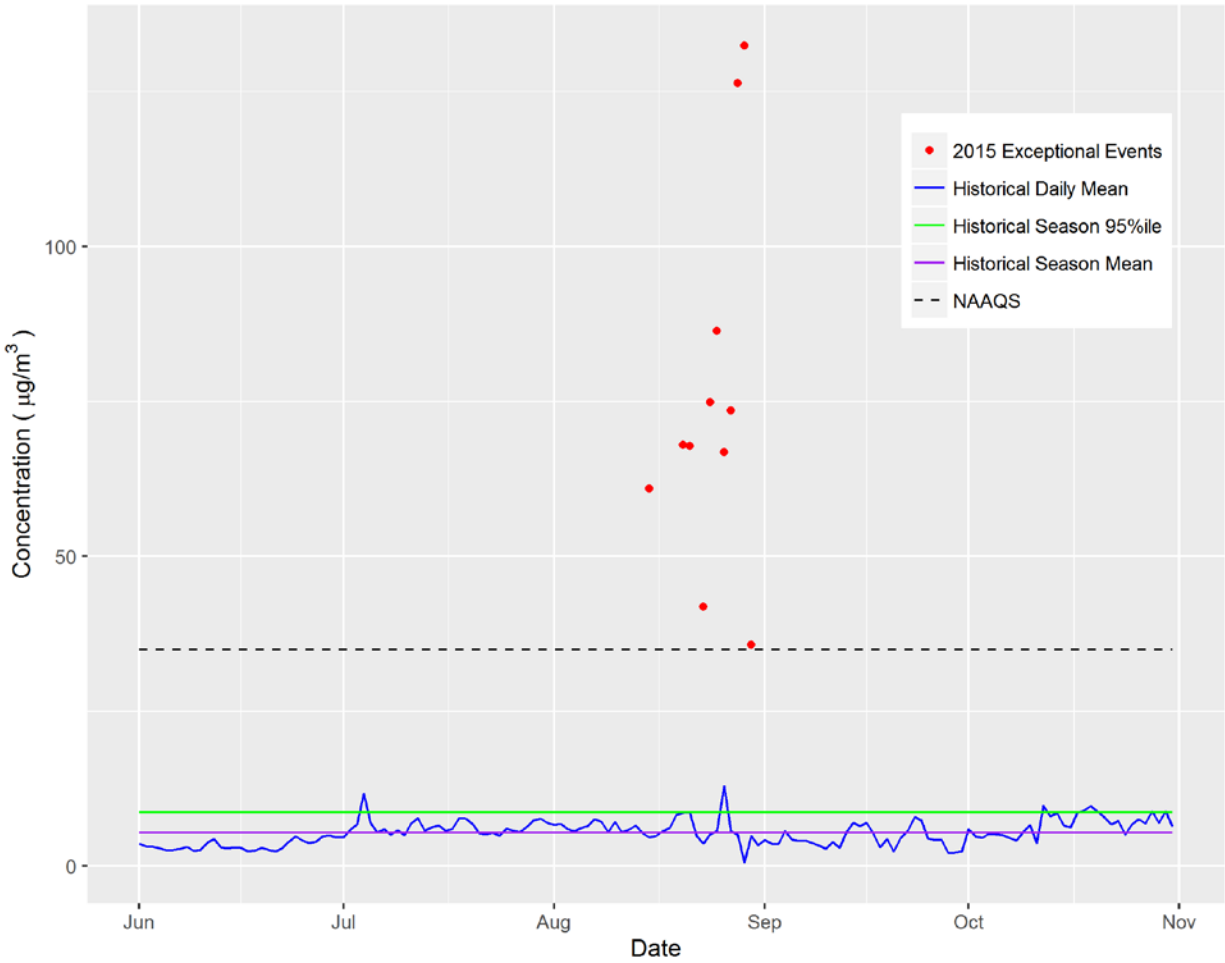


### EXCEPTION EVENTS FOR MALTA

Date	Concentration
6/29/2015	43.1
6/30/2015	133.4
7/2/2015	49.5
7/3/2015	42.1
8/25/2015	38.6
8/26/2015	56.6
8/28/2015	75.0
8/29/2015	97.3

## Missoula

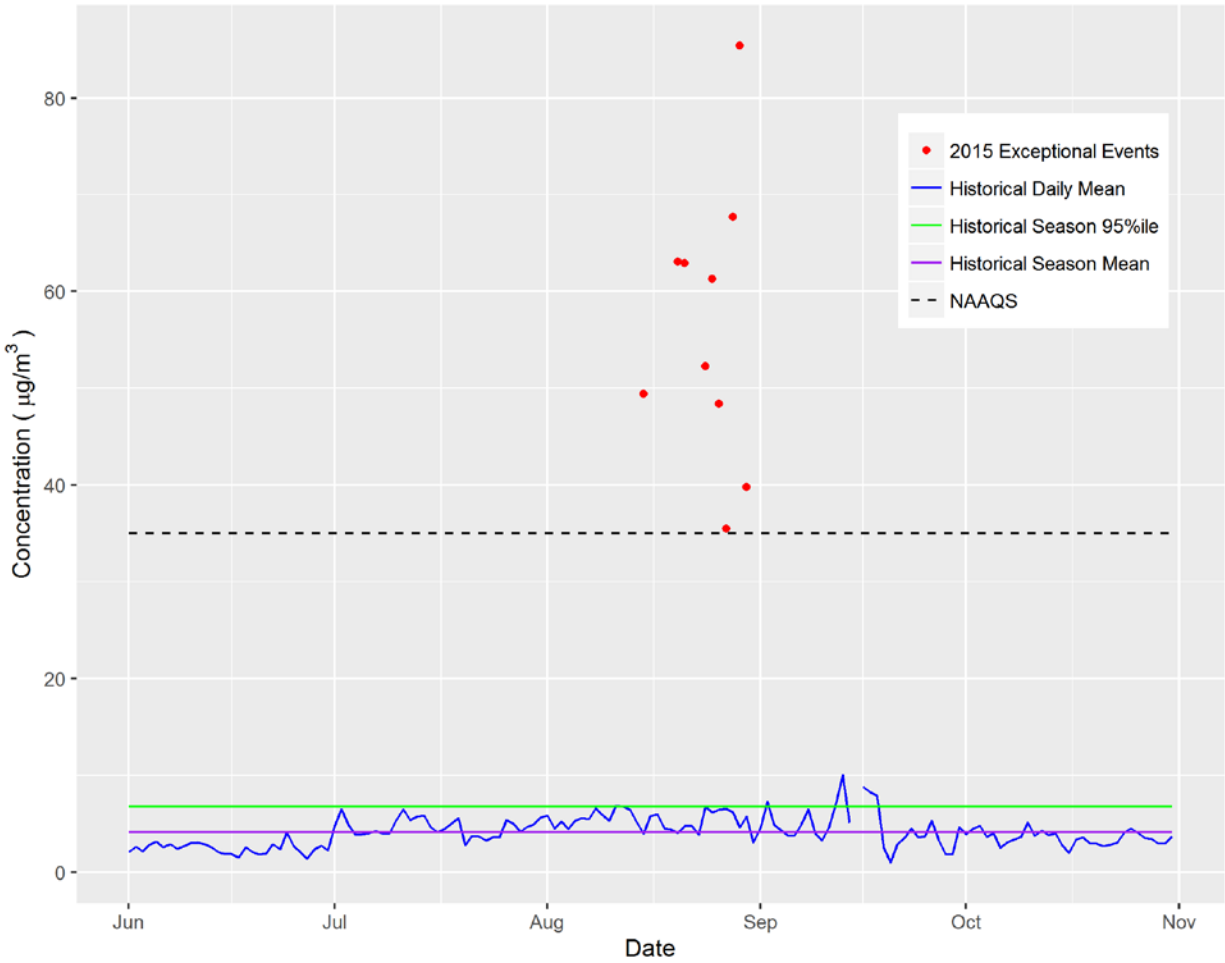
Historical PM2.5 Data for Missoula Compared to 2015 Exceptional Events



### EXCEPTION EVENTS FOR MISSOULA

Date	Concentration
8/15/2015	60.9
8/20/2015	68.0
8/21/2015	67.8
8/23/2015	41.9
8/24/2015	74.9
8/25/2015	86.4
8/26/2015	66.8
8/27/2015	73.5
8/28/2015	126.4
8/29/2015	132.4
8/30/2015	35.7

Historical PM2.5 Data for NCORE Compared to 2015 Exceptional Events

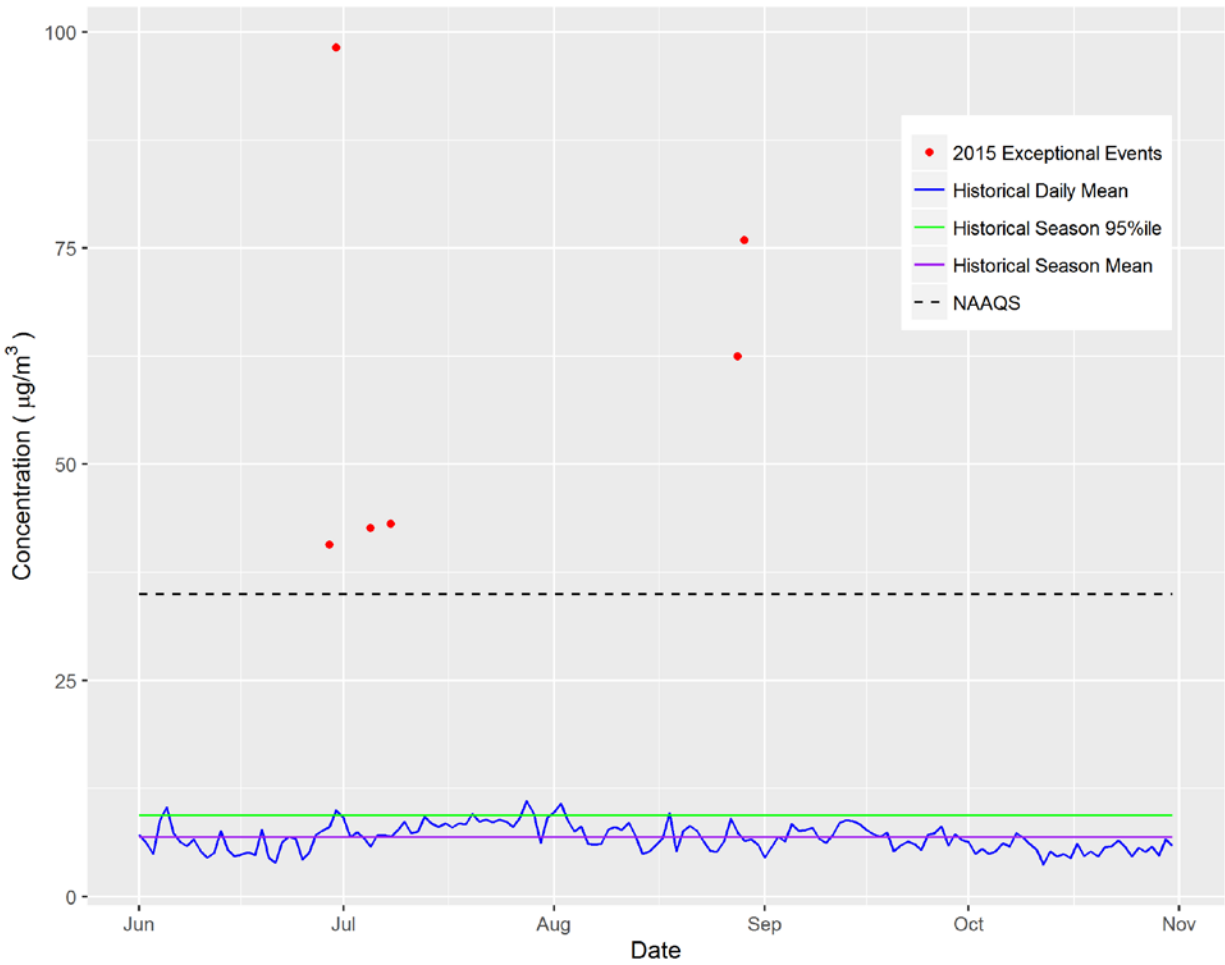


EXCEPTION EVENTS FOR NCORE

Date	Concentration
8/15/2015	49.4
8/20/2015	63.1
8/21/2015	62.9
8/24/2015	52.3
8/25/2015	61.3
8/26/2015	48.4
8/27/2015	35.5
8/28/2015	67.7
8/29/2015	85.4
8/30/2015	39.8

## Sidney

Historical PM2.5 Data for Sidney Compared to 2015 Exceptional Events



### EXCEPTION EVENTS FOR SIDNEY

Date	Concentration
6/29/2015	40.7
6/30/2015	98.2
7/5/2015	42.6
7/8/2015	43.1
8/28/2015	62.5
8/29/2015	75.9

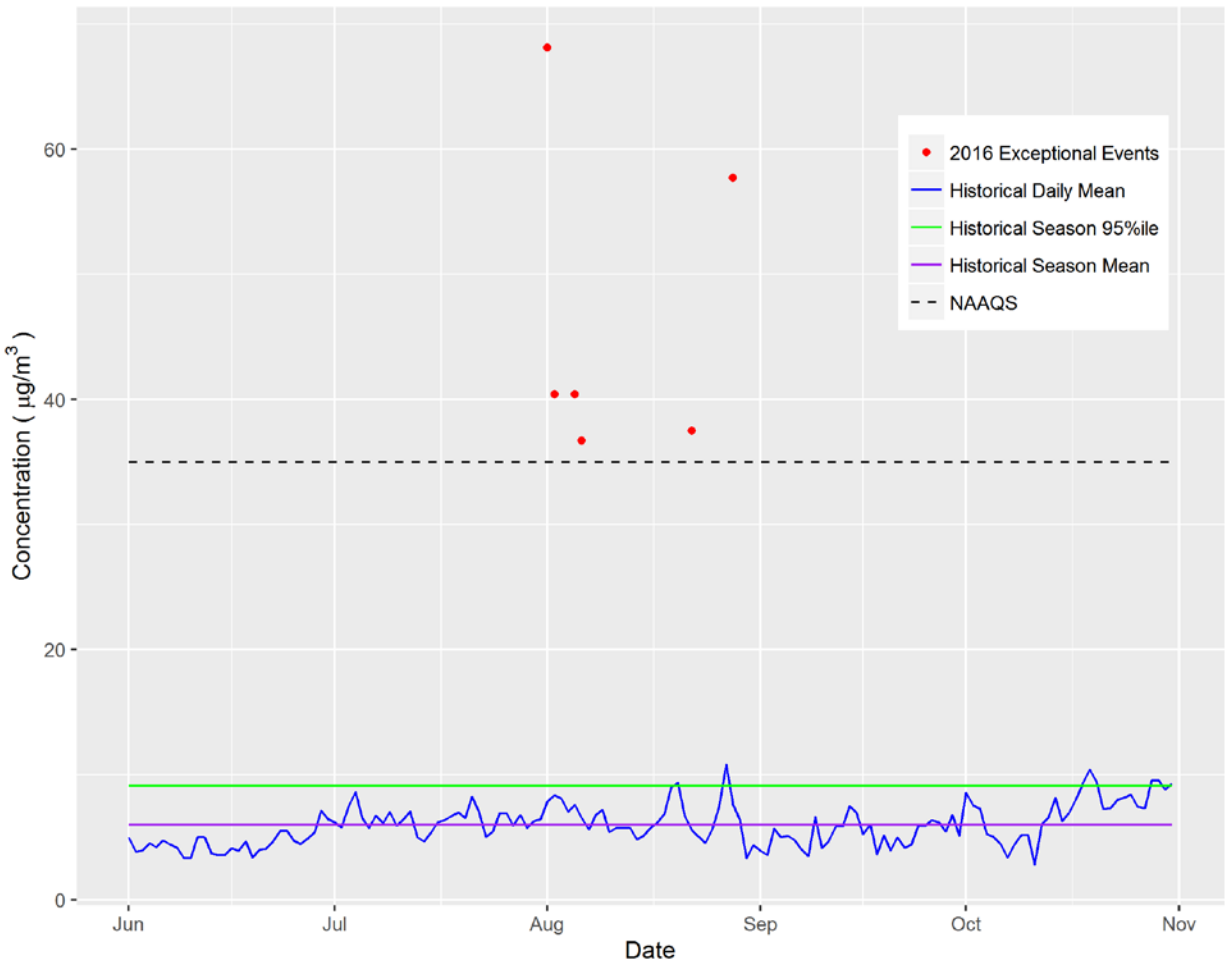
## HISTORICAL GRAPHS FOR 2016 PM<sub>2.5</sub> EXCEPTIONAL EVENTS

The graphs shown here compare the exceptional events for a monitoring station with the daily average value for that day. This data was created by extracting historical data at each station, removing all null and flagged data, and then developing an average daily value. The daily average and corresponding mean and 95 percentile information is shown for the wildfire season only (June 1 – October 31). The following table outlines the available data for each station.

Station	Years Used for Historical Data	Notes
<b>Hamilton</b>	2009 - 2015	Full continuous monitor data available

## Hamilton

Historical PM2.5 Data for Hamilton Compared to 2016 Exceptional Events



### EXCEPTION EVENTS FOR HAMILTON

Date	Concentration
8/1/2016	68.1
8/2/2016	40.4
8/5/2016	40.4
8/6/2016	36.7
8/22/2016	37.5
8/28/2016	57.7