

## 2017 Q3 (July – September) Monitoring Results



### Air Quality Health Index (AQHI) Ratings

The AQHI describes the level of health risk associated with an AQHI number. The levels are low, moderate, high or very high. The higher the index number, the greater the health risks. Go to [our website's AQHI page](#) for more information. Five of FAP's nine continuous air monitoring stations monitor substances whereby AQHI can be calculated.

		Risk Level (% of time in each)			
Station Name	Hours Monitored	Low	Moderate	High	Very High
Bruderheim	2135	93.54%	5.95%	0.51%	0.00%
Elk Island	2099	93.43%	6.05%	0.38%	0.14%
Fort Saskatchewan*	2035	92.58%	7.42%	0.00%	0.00%
Gibbons	2121	92.03%	7.26%	0.52%	0.19%
Lamont County	2151	94.65%	4.83%	0.51%	0.00%
<b>Total hours</b>	<b>10,541</b>	<b>9,830</b>	<b>663</b>	<b>41</b>	<b>7</b>

*\*Instrumentation issues for several days in July and August may have affected calculation of AQHI readings at this station. However, regional forecasting for the Fort Saskatchewan area based on data from all stations in the region was still valid during this period.*

**Hours with a High or Very High Risk AQHI Rating**

This table shows the number of hours of high or very high AQHI rating during Q3 of 2017, when they occurred and the likely cause.

Fort Air Partnership Continuous Air Quality Monitoring Station												
Event Dates	Bruderheim		Elk Island		Fort Sask.		Gibbons		Lamont County		Total Hours	Event Cause
	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk	High Risk	Very High Risk		
July 16	-	-	1	-	-	-	1	-	-	-	2	Forest Fires
Aug. 13, 14	11	-	7	3	-	-	6	4	11	-	42	Forest Fires
Aug. 31	-	-	-	-	-	-	2	-	-	-	2	Local Construction / Harvesting
Sept. 6	-	-	-	-	-	-	2	-	-	-	2	Harvesting
<b>Total Hours</b>	<b>11</b>	<b>-</b>	<b>8</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>11</b>	<b>4</b>	<b>11</b>	<b>-</b>	<b>48</b>	

**Summary of Exceedances**

Air quality measurements are compared hourly to the [Alberta Ambient Air Quality Objectives \(AAAQO\)](#). Any exceedance of an AAAQO is reported to the Alberta Government and the cause of the exceedance investigated.

One Hour Exceedances			
Parameter	Exceedances	Dates	Attributed Cause
Ammonia (NH <sub>3</sub> )	1	July 9	Local Industry
Respirable Particulate PM <sub>2.5</sub>	2	July 16	Forest Fires
	1	Aug 11	Unknown Localized Source
	52	Aug 13-14	Forest Fires

<b>Respirable Particulate PM<sub>2.5</sub></b>	2	August 31	Road Construction and/or Harvesting
	1	September 6	Harvesting Operations
<b>Sulphur Dioxide SO<sub>2</sub></b>	4	July 7,12,27,30	Local Industry
	6	Aug 7, 23, 25, 29, 30, 31	Local Industry

<b>24 Hour Exceedances</b>			
<b>Parameter</b>	<b>Exceedances</b>	<b>Dates</b>	<b>Attributed Cause</b>
<b>Respirable Particulate PM<sub>2.5</sub></b>	5	July 16	Forest Fires
	6	July 20	Forest Fires
	9	August 13-14	Forest Fires
	6	August 18	Forest Fires