

2018 Q3 (July-September) Monitoring Results



Air Quality Health Index (AQHI) Ratings

The AQHI is calculated by the Government of Alberta using data collected at FAP air monitoring stations. The AQHI describes the level of health risk associated with AQHI levels. The levels are low, moderate, high or very high. Risk to health increases as the index level rises. Go to [our website's AQHI page](#) for more information. Seven of FAP's 10 continuous air monitoring stations monitor substances whereby the AQHI can be calculated.

		Risk Level (% of time in each)			
Station Name	Hours Monitored	Low	Moderate	High	Very High
Bon Accord*	2,158	84.85%	11.82%	3.34%	0.56%
Bruderheim	2,146	85.69%	8.90%	5.41%	0.56%
Elk Island	2,081	86.98%	8.99%	4.04%	1.01%
Fort Saskatchewan	1,996	82.97%	11.92%	5.11%	0.60%
Gibbons	2,145	85.50%	8.90%	5.59%	0.65%
Lamont County	2,120	84.76%	10.61%	4.62%	0.33%
Redwater	2,129	85.72%	7.80%	6.48%	0.38%
Total hours	12,617	10,761	1,198	658	74

*FAP's new portable station was placed in Bon Accord and began reporting the AQHI on April 26.

Hours with a High or Very High Risk AQHI Rating

This table shows the number of hours of high or very high risk AQHI rating during the third quarter of 2018, when they occurred and the likely cause.

Fort Air Partnership Continuous Air Quality Monitoring Station																
Event Dates	Bon Accord		Bruderheim		Elk Island		Fort Sask.		Gibbons		Lamont County		Redwater		Total Hours	Attributed 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	High Risk	Very High Risk	High Risk	Very High Risk		
July 3	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	Regional effects
August 7	3	-	1	-	-	-	-	-	3	-	-	-	2	-	9	Wild fire smoke
August 8	13	-	4	-	4	-	1	-	7	-	-	-	5	-	34	
August 9	1	-	4	-	-	-	5	-	2	-	-	-	10	-	22	
August 10	4	4	6	2	4	3	5	3	4	5	7	-	8	-	55	
August 11	3	-	7	-	4	2	5	-	4	-	6	-	9	-	40	
August 14	-	-	6	-	6	-	4	-	4	-	1	-	2	-	23	
August 15	17	-	19	2	13	8	20	-	21	1	20	-	18	-	139	
August 16	8	-	24	-	14	-	10	-	13	-	20	-	24	-	113	
August 17	13	-	14	-	6	-	15	-	17	-	13	-	21	-	99	
August 18	3	8	4	8	3	8	3	9	3	8	4	7	4	8	80	
August 22	4	-	7	-	9	-	7	-	9	-	7	-	4	-	47	
August 23	-	-	8	-	15	-	19	-	18	-	18	-	15	-	93	
August 25	3	-	4	-	6	-	1	-	5	-	-	-	6	-	25	
August 26	-	-	8	-	-	-	7	-	9	-	2	-	10	-	36	
Total Hours	72	12	116	12	84	21	102	12	120	14	98	7	138	8	816	

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
Hydrogen Sulphide H₂S	1	July 26	Local industry
	3	August 16, 19	
Ozone O₃	6	August 9	Summertime smog
Respirable Particulate PM_{2.5}	1	July 3	Regional effects
	20	August 7	Wild fire smoke
	17	August 8	
	7	August 9	
	75	August 10	
	18	August 11	
	20	August 14	
	154	August 15	
	117	August 16	
	112	August 17	
	61	August 18	
	62	August 22	
	80	August 23	
	29	August 25	
	34	August 26	
Total	817		

24 Hour Exceedances			
Parameter	Exceedances	Dates	Attributed Cause
Respirable Particulate PM _{2.5}	7	August 7	Wild fire smoke
	7	August 8	
	7	August 9	
	7	August 10	
	6	August 11	
	6	August 14	
	7	August 15	
	6	August 16	
	6	August 17	
	7	August 18	
	3	August 19	
	7	August 20	
	7	August 21	
	7	August 22	
	6	August 23	
	7	August 25	
	6	August 26	
Total	109		