

Ambient Air Monitoring and Reporting Plan Summary

Below is a summary of the for Air Quality Monitoring (AQM) program during the period of **January to December 2011**. However, it is important to have at least three years of data to make any firm conclusions. These results should be treated as preliminary. Note STN35021 Weston was commissioned in February 2011, STN35020 Wallace in September 2011 and STN35022 Strachan in January 2012. The summary below is for the annual data for the Weston monitoring station.

These results have been audited and validated by the Ontario Ministry of the Environment (MOE).

CO

Averaging time	STN 35021 Weston		Predicted Exceedances *
	# Days above AAQC	Annual Mean	
1 Hour	0	217 µg/m ³	0

Regulatory Levels: CO 1 hour AAQC – 36200 µg/m³

* As per the 2009 Air Quality Assessment. Further analysis was not required.

PM_{2.5}

Averaging time	STN 35021 Weston			Predicted Exceedances **
	# Days above CWS	# Days above WHO	Annual Mean	
24 hour	1*	7	9 µg/m ³	15

Regulatory Levels: PM_{2.5} 24 hour CWS – 30 µg/m³
PM_{2.5} 24 hour WHO – 25 µg/m³

* This does not mean an exceedence of the CWS as the CWS is based on the three-year average of the 98th percentile.

** As per the 2011 Enhanced Air Quality Assessment

NO₂

Averaging time	STN 35021 Weston			Predicted Exceedances *
	# Days above AAQC	# Days above WHO	Annual Mean	
1 Hour	0	0	36 µg/m ³	0
24 Hour	0	(no WHO standard)		0

Regulatory Levels: NO₂ 1 hour AAQC – 400 µg/m³
 NO₂ 1 hour WHO – 200 µg/m³
 NO₂ 24 hour AAQC – 200 µg/m³
 NO₂ Annual WHO – 40 µg/m³

** As per the 2011 Enhanced Air Quality Assessment*

SO₂

Averaging time	STN 35021 Weston			Predicted Exceedances *
	# Days above AAQC	# Days above WHO	Annual Mean	
1 Hour	0	n/a	2.5 µg/m ³	0**
24 Hour	0	0		5

Regulatory Levels: SO₂ 1 hour AAQC – 690 µg/m³
 SO₂ 24 hour AAQC – 275 µg/m³
 SO₂ 24 hour WHO – 20 µg/m³

** As per the 2011 Enhanced Air Quality Assessment*

*** 1 hour SO₂ did not have predicted exceedances in original modelling for the 2009 Environmental Assessment (EA) and further investigation was not necessary.
 n/a – not modelled for in the 2011 Enhanced Air Quality Assessment*

Glossary/Terms

AAQC – Ambient Air Quality Criteria are provincial emission guidelines set by the Ontario Ministry of the Environment.

CO – Carbon Monoxide is a colourless, odourless and tasteless but poisonous gas produced primarily by incomplete burning of fossil fuels.

CWS – The Canada Wide Standard is developed jointly by the Federal government and the Provinces – including Ontario – and is used as a guideline for particulate matter.

NO₂ – Nitrogen dioxide gases are oxides of nitrogen and are produced during high temperature combustion.

PM_{2.5} – Particulate matter describes a mixture of microscopic solid particles and liquid droplets suspended in air. PM_{2.5} refers to particulate matter less than 2.5 microns in size.

SO₂ – Sulphur dioxide is a colourless gas that smells like burnt matches; it can also be a precursor to sulphates which are a main component in particulate matter.

WHO – World Health Organization is the authority within the United Nations responsible for international public health (www.who.int/en/).

For more details on the data, please see the full report at gotransit.com/gts