

**Table VIII-3-a: Air Quality in Vital Signs Communities, Days above Threshold Levels, 2001-2006**

	Days With Daily Maximum 8h Ozone > 65 ppb							TEOM Number of Days with PM25 Concentrations > 30 (ug/m3)						
	2001	2002	2003	2004	2005	2006	Average	2001	2002	2003	2004	2005	2006	Average
Saint John	9	1	1	0	2	0	2	4	2	2	1	0	0	2
Fredericton	0	1	2	0	0	3	1	0	3	1	0	0	0	1
Montreal	25	14	14	3	17	4	13	10	12	15	7	17	4	11
Ottawa	20	8	9	0	12	6	9	3	4	4	3	10	1	4
Sudbury	n.a	n.a	n.a	n.a	n.a	12	n.a	n.a	n.a	n.a	n.a	5	0	3
Toronto	28	29	21	8	27	15	21	10	13	12	12	18	6	12
Guelph	n.a	n.a	n.a	n.a	n.a	14	n.a	7	4	2	9	11	2	6
Kitchener	26	30	17	8	27	11	20	6	n.a	5	11	13	2	7
London	23	36	19	5	22	11	19	5	n.a	9	12	13	3	8
Oakville	17	28	22	9	27	17	20	n.a	n.a	6	10	10	3	7
Saskatoon	0	0	0	0	0	0	0	n.a	n.a	n.a	1	0	1	0
Calgary	0	5	3	1	0	0	2	0	1	12	0	1	0	2
Lethbridge	0	0	0	0	2	0	0	0	0	0	0	0	0	0
Medicine Hat	0	5	1	1	0	0	1	n.a	n.a	n.a	0	0	0	0
Red Deer	0	5	1	1	0	1	1	0	1	2	0	0	1	1
Vancouver	1	0	1	2	1	3	1	0	1	0	0	2	1	1
Victoria	0	0	0	0	0	0	0	0	0	1	0	0	0	0

Source: Environment Canada. Data obtained by special request.

Note: The definitions for ground-level ozone and particulates are from the community accounts data published by the Government of

[http://www.communityaccounts.ca/CommunityAccounts/OnlineData/acct\\_selection.asp?comval=prov&menucomval=prov&whichacct=env](http://www.communityaccounts.ca/CommunityAccounts/OnlineData/acct_selection.asp?comval=prov&menucomval=prov&whichacct=env)

Denimition: Ground-level ozone is a reactive, unstable form of oxygen. In very high concentrations, it is a bluish gas. It has a characteristic sharp

smell which may be recognized around electrical equipment such as motors or arc welders. In the concentrations found in outdoor air, ground-

level ozone is both colourless and odourless. Ground-level ozone is formed in the air from other pollutants, most notably nitrogen oxides and

hydrocarbons. Slow-moving air and strong sunshine greatly speed up the formation of ozone. Vehicle exhaust are large contributors of ground-

level ozone as well as industrial emissions. Ground-level ozone irritates the lungs and can make breathing difficult. Exposure to high

concentrations can result in chest tightness, coughing and wheezing. Ground-level ozone can also damage agricultural crops such as potatoes

and tomatoes as well as affect trees and other vegetation. Ozone also weakens rubber and attacks metals and painted surfaces. Canada-Wide

Environmental Standards (CWSs) have been developed for ground-level ozone. The standard to be achieved by 2015 is 65 ppb. This is based on

the 4th highest measurement annually (8-hour means), averaged over 3 consecutive years.

Particulates are particles in the air either from a natural origin or as a result of human activity. PM-2.5 is particulate matter with an effective

diameter of 2.5 microns or less which bypass filtration in the nose and may be deposited in the lungs. This is referred to as "respirable"

particulate. Common natural sources of particulates include wind-blown soil dust, forest fires, sea salt, volcanoes, and plants, as well as, human

activity such as fuel combustion and any other burning, travel on dirt roads, construction work, and mining and quarrying. In analyzing

particulates, PM-2.5 is of special significance in terms of health impacts since it has a higher chance of entering and remaining in the lungs if

inhaled. People with existing breathing complaints such as asthma, bronchitis, or emphysema are likely to be adversely affected by high

concentrations of particulates. Particulates can also cause corrosion and soiling of metalwork or other materials, damage vegetation, and reduce

visibility. Canada-Wide Environmental Standards (CWSs) have been developed for PM-2.5. The standard to be achieved by 2010 is 30 mg/m3.

This is based on the 98th percentile measurement annually (24-hour means), averaged over 3 consecutive years.