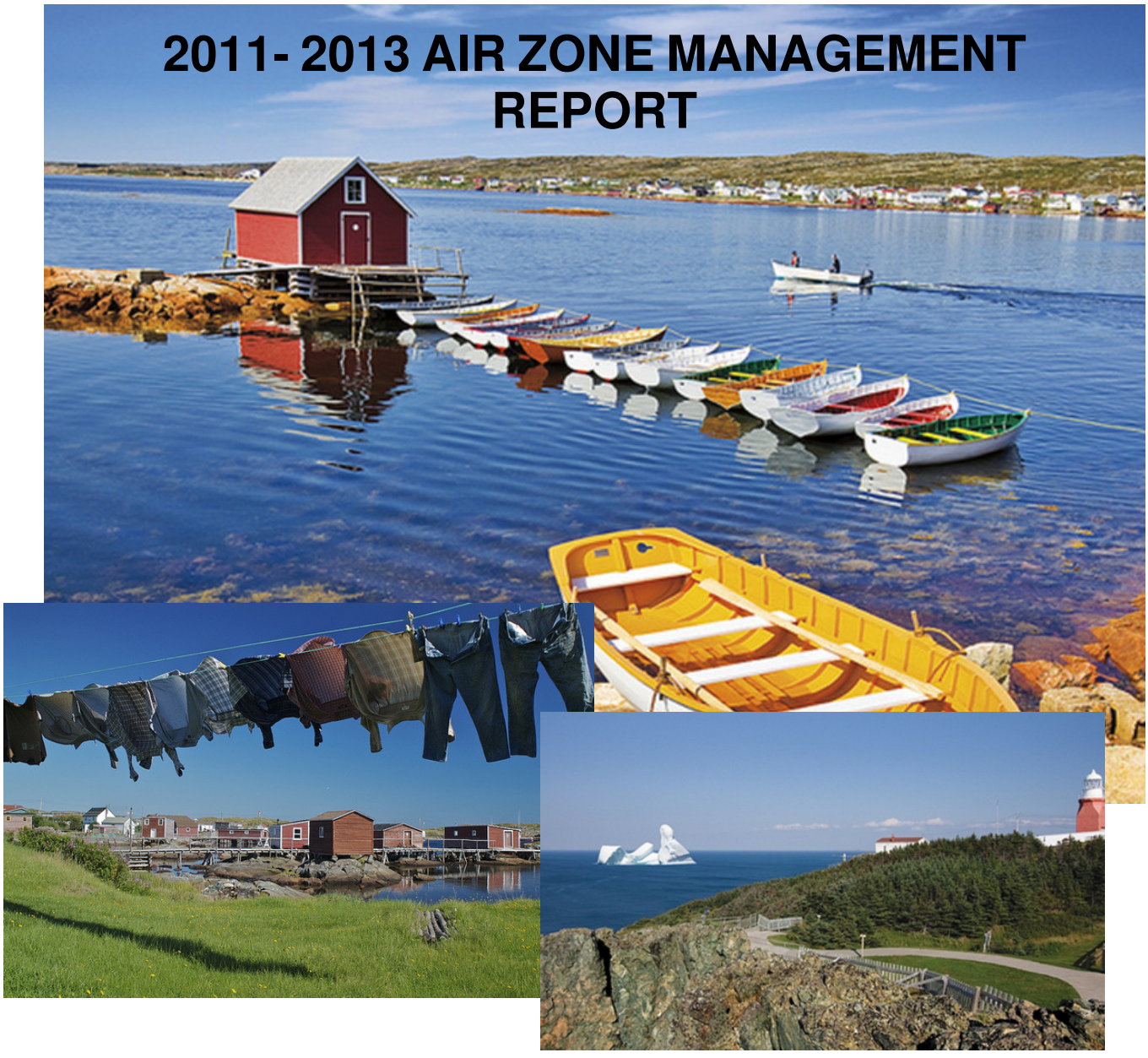
Newfoundland Labrador

DEPARTMENT OF ENVIRONMENT AND CONSERVATION

2011- 2013 AIR ZONE MANAGEMENT REPORT



December 2014

Current Air Quality Status

Table 1 presents the air quality status from 2011 to 2013 for the Newfoundland and Labrador Air Zone stations.

Table 1: Newfoundland and Labrador Air Quality by Station, 2011 to 2013

Station Location	8-hour Ozone (ppb)	24-hour $PM_{2.5}$ ($\mu g/m^3$)		Annual $PM_{2.5}$ ($\mu g/m^3$)	
Water Street, St. John's	48.2	11		5.0	
Old Placentia Road, Mount Pearl	50.7	12		5.0	
Macpherson Avenue, Corner Brook	52.7	**15**		**5.9**	
Scott Avenue, Grand Falls Windsor	51.3	14		4.9	
Port aux Choix	49.7 **	na		na	
Burin	**53.4****	10		4.5	
Smokey Mountain Road, Labrador City	nd	9 / 21*		2.6 / 3.6*	
Newfoundland Air Zone	**53.4****	**15**		**5.9**	
Labrador Air Zone	**nd**	**9**	**21***	**2.6**	**3.6***

na – indicates that data is not collected at this site.

nd – the station began operation in December 2013 and thus insufficient data was available to calculate an average.

* - indicates data is artificially high due to forest fires in the area during 2013.

** - based on a 2-year average

In late June and early July 2013, large forest fires in eastern Quebec and western Labrador resulted in elevated $PM_{2.5}$ levels across the entire Province. The impacts in Labrador, particularly near the Smokey Mountain monitoring station, were much greater than those on the island and consequently two values are reported for the Labrador Air Zone, the first being the air quality status with the impacts of the fires being excluded, the second being the air quality status with the impacts included. For the Newfoundland Air Zone, the air quality status is inclusive of the impacts from the forest fires. If the impacts had been excluded, the air quality status in the Newfoundland Air Zone would have dropped marginally, but not sufficient to alter the framework status.

Table 2 presents the final Air Zone status for the reporting period 2011 through 2013. For the Labrador Air Zone, the forest fires in eastern Quebec and western Labrador in 2013 are considered exceptional events and are therefore excluded from the $PM_{2.5}$ metrics. The specific dates of exclusion were June 27th to June 30th and July 2nd to July 6th.

Table 2: Newfoundland and Labrador Air Quality, 2011 to 2013

Station Location	8-hour Ozone (ppb)	24-hour $PM_{2.5}$ ($\mu g/m^3$)	Annual $PM_{2.5}$ ($\mu g/m^3$)
Newfoundland Air Zone	**53.4**	**15**	**5.9**
Labrador Air Zone	**nd**	**9**	**2.6**

Air Zone Management

It is recognized that the air quality in both the Labrador and Newfoundland Air Zones is largely affected by emissions from sources outside the province through long-range transport and as such, limits the number of mitigation measures available to maintain and reduce the impacts in the province. The Province continues to work with major industrial operations in the province to reduce particulate emissions and those emissions which are precursors to the formation of ozone. Should further actions be necessary to reduce ambient levels in both Air Zones, the Province is prepared to take actions as appropriate.

Additional information on AQMS can be found at the Department of Environment and Conservation website:

http://www.env.gov.nl.ca/env/env_protection/science/aqms.html

and the Canadian Council of Ministers of the Environment website:

http://www.ccme.ca/en/resources/air/aqms.html