

Comhairle nan Eilean Siar - Scotland

Comhairle nan Eilean Siar



2009 Air Quality Updating and Screening Assessment for Comhairle nan Eilean Siar

In fulfillment of Part IV of the Environment Act 1995
Local Air Quality Management

29th April 2009

Local Authority Officer	Ruth Macaskill
--------------------------------	--------------------------------

Department	Social & Community Services
Address	Sandwick Road, Stornoway, Isle of Lewis, HS1 2BW
Telephone	01851 709 578
e-mail	ruth-macaskill@cne-sair.gov.uk

Report Reference number	
Date	29 th April 2009

Executive Summary

Comhairle nan Eilean Siar did not gather any air quality data for 2008. The only pollutant that was tested in previous years was Nitrogen Dioxide (NO₂) and as the reported levels were significantly lower than the action levels monitoring was stopped.

There are no Air Quality Management Areas (AQMA) within the Western Isles area.

Table of contents

1	Introduction	4
1.1	Description of Local Authority Area	4
1.2	Purpose of Report	4
1.3	Air Quality Objectives	4
1.4	Summary of Previous Review and Assessments	6
2	New Monitoring Data	7
2.1	Summary of Monitoring Undertaken	7
2.2	Comparison of Monitoring Results with AQ Objectives	Error! Bookmark not defined.
3	Road Traffic Sources	12
3.1	Narrow congested streets with residential properties close to the kerb	12
3.2	Busy streets where people may spend 1-hour or more close to traffic	12
3.3	Roads with high flow of buses and/or HGVs.	12
3.4	Junctions and busy roads	12
3.5	New roads constructed or proposed since the last round of review and assessment	13
3.6	All roads with significantly changed traffic flows.	13
3.7	Bus and coach stations	13
4	Other Transport Sources	14
4.1	Airports	14
4.2	Railways (diesel and steam trains)	14
4.3	Ports (shipping)	14
5	Industrial Sources	15
5.1	New or Proposed Industrial Installations	15
5.2	Major fuel (petrol) storage depots	15
5.3	Petrol stations	16
5.4	Poultry farms	16
6	Commercial and Domestic Sources	17
6.1	Biomass combustion – Individual Installations	17
6.2	Biomass combustion – Combined Impacts	17
6.3	Domestic Solid-Fuel Burning	17
7	Fugitive or Uncontrolled Sources	18
8	Conclusions and Proposed Actions	19
8.1	Conclusions from New Monitoring Data	19
8.2	Conclusions from Assessment of Sources	19
8.3	Proposed Actions	19
9	References	20

Comhairle nan Eilean Siar - Scotland

Appendices

Appendix 1

[Map of the Western Isles](#)

1 Introduction

1.1 Description of Local Authority Area

Comhairle nan Eilean Siar is the local authority covering the chain of islands known as the Western Isles. The islands are situated of the North West coast of Scotland; the main islands in the chain are Lewis, Harris, North Uist, Benbecula, South Uist and Barra (Figure 1). There are approximately 26, 000 people living within the Western Isles, the main population centres are Stornoway on Lewis, Tarbert in Harris, Balivanich in Benbecula and Castlebay in Barra. Stornoway is the largest town in the Western Isles with a population of around 6, 000. The islands are linked by ferry and causeways and travel to the mainland is achievable through sea and airport links.

1.2 Purpose of Report

This report fulfils the requirements of the Local Air Quality Management process as set out in Part IV of the Environment Act (1995), the Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 and the relevant Policy and Technical Guidance documents. The LAQM process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where exceedences are considered likely, the local authority must then declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives.

1.3 Air Quality Objectives

The air quality objectives applicable to LAQM in Scotland are set out in the Air Quality (Scotland) Regulations 2000 (Scottish SI 2000 No 97), the Air Quality (Scotland) (Amendment) Regulations 2002 (Scottish SI 2002 No 297), and are shown in Table 1.1. This table shows the objectives in units of microgrammes per cubic metre $\mu\text{g}/\text{m}^3$ (milligrammes per cubic metre, mg/m^3 for carbon monoxide) with the number of exceedences in each year that are permitted (where applicable).

Comhairle nan Eilean Siar - Scotland

Table 1.1 Air Quality Objectives included in Regulations for the purpose of Local Air Quality Management in Scotland.

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene	16.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
	3.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2010
1,3-Butadiene	2.25 $\mu\text{g}/\text{m}^3$	Running annual mean	31.12.2003
Carbon monoxide	10.0 mg/m^3	Running 8-hour mean	31.12.2003
Lead	0.5 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2004
	0.25 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2008
Nitrogen dioxide	200 $\mu\text{g}/\text{m}^3$ not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2005
Particles (PM₁₀) (gravimetric)	50 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 35 times a year	24-hour mean	31.12.2004
	40 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2004
	50 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 7 times a year	24-hour mean	31.12.2010
	18 $\mu\text{g}/\text{m}^3$	Annual mean	31.12.2010
Sulphur dioxide	350 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 $\mu\text{g}/\text{m}^3$, not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

1.4 Summary of Previous Review and Assessments

Sampling was carried out in 2007 and there were no exceedences identified or AQMA's declared.

2 New Monitoring Data

2.1 Summary of Monitoring Undertaken

2.1.1 Automatic Monitoring Sites

There was no air quality monitoring carried out in the Western Isles in 2008.

Table 2.1 Details of Automatic Monitoring Sites

There are no automatic monitoring sites situated within the Western Isles.

2.1.2 Non-Automatic Monitoring

No

Table 2.2 Details of Non- Automatic Monitoring Sites

There was no air quality monitoring carried out in the Western Isles during 2008. In previous years sampling was carried out using diffusion tubes at 4 locations in Stornoway. The tubes were collected at 4 week intervals and sent to Glasgow Scientific Services for analysis.

Comhairle nan Eilean Siar - Scotland

Diffusion Tube Monitoring Data

There was no air quality monitoring carried out in the Western Isles during 2008.

Comhairle nan Eilean Siar - Scotland

Table 2.4b Results of Nitrogen Dioxide Diffusion Tubes

Site ID	Location	Within AQMA?	Annual mean concentrations ($\mu\text{g}/\text{m}^3$) Adjusted for bias		
			2006 *	2007 *	2008
B4	Macmillan Brae	No		4.4	None
B3	Barony Square	No		2.9	None
K1	Cromwell Street	No		23.0	None
K2	Bank Street	No		15.7	None

Comhairle nan Eilean Siar - Scotland

3 Road Traffic Sources

3.1 Narrow Congested Streets with Residential Properties Close to the Kerb

Comhairle nan Eilean Siar confirms that there are no new/newly identified congested streets with a flow above 5,000 vehicles per day and residential properties close to the kerb, that have not been adequately considered in previous rounds of Review and Assessment.

3.2 Busy Streets Where People May Spend 1-hour or More Close to Traffic

Comhairle nan Eilean Siar confirms that there are no new/newly identified busy streets where people may spend 1 hour or more close to traffic.

3.3 Roads with a High Flow of Buses and/or HGVs.

Comhairle nan Eilean Siar confirms that there are no new/newly identified roads with high flows of buses/HDVs.

3.4 Junctions and Busy Roads

Comhairle nan Eilean Siar confirms that there are no new/newly identified busy junctions/busy roads.

3.5 New Roads Constructed or Proposed Since the Last Round of Review and Assessment

Comhairle nan Eilean confirms that there are no new/proposed roads.

3.6 Roads with Significantly Changed Traffic Flows

Comhairle nan Eilean Siar confirms that there are no new/newly identified roads with significantly changed traffic flows.

3.7 Bus and Coach Stations

Comhairle nan Eilean Siar confirms that there are no relevant bus stations in the Local Authority area.

4 Other Transport Sources

4.1 Airports

Comhairle nan Eilean Siar confirms that there are no significant changes in the Local Authority area.

4.2 Railways (Diesel and Steam Trains)

4.2.1 Stationary Trains

Comhairle nan Eilean Siar confirms that there are no locations where diesel or steam trains are regularly stationary for periods of 15 minutes or more, with potential for relevant exposure within 15m.

4.2.2 Moving Trains

Comhairle nan Eilean Siar confirms that there are no locations with a large number of movements of diesel locomotives, and potential long-term relevant exposure within 30m.

4.3 Ports (Shipping)

Comhairle nan Eilean Siar confirms that there are no ports or shipping that meet the specified criteria within the Local Authority area.

5 Industrial Sources

5.1 Industrial Installations

5.1.1 New or Proposed Installations for which an Air Quality Assessment has been Carried Out

Comhairle nan Eilean Siar confirms that there are no new or proposed industrial installations for which planning approval has been granted within its area or nearby in a neighbouring authority.

5.1.2 Existing Installations where Emissions have Increased Substantially or New Relevant Exposure has been Introduced

Comhairle nan Eilean Siar confirms that there are no industrial installations with substantially increased emissions or new relevant exposure in their vicinity within its area or nearby in a neighbouring authority.

5.1.3 New or Significantly Changed Installations with No Previous Air Quality Assessment

Comhairle nan Eilean Siar confirms that there are no new or proposed industrial installations for which planning approval has been granted within its area or nearby in a neighbouring authority.

5.2 Major Fuel (Petrol) Storage Depots

There are major fuel depots situated within Stornoway itself; one on Shell Street; one at Stornoway Airport and one in Lochcarnan in South Uist.

There are major fuel (petrol) storage depots within the Local Authority area, but these have been considered in previous reports.

5.3 Petrol Stations

Comhairle nan Eilean Siar confirms that there are no petrol stations meeting the specified criteria.

5.4 Poultry Farms

Comhairle nan Eilean Siar confirms that there are no poultry farms meeting the specified criteria.

6 Commercial and Domestic Sources

6.1 Biomass Combustion – Individual Installations

Comhairle nan Eilean Siar confirms that there are no biomass combustion plants in the Local Authority area.

6.2 Biomass Combustion – Combined Impacts

Comhairle nan Eilean Siar confirms that there are no biomass combustion plants in the Local Authority area.

6.3 Domestic Solid-Fuel Burning

Comhairle nan Eilean Siar confirms that there are no areas of significant domestic fuel use in the Local Authority area.

7 Fugitive or Uncontrolled Sources

Comhairle nan Eilean Siar confirms that there are no potential sources of fugitive particulate matter emissions in the Local Authority area.

8 Conclusions and Proposed Actions

8.1 Conclusions from New Monitoring Data

There was no monitoring carried out within the Local Authority area in 2008.

8.2 Conclusions from Assessment of Sources

Not applicable

8.3 Proposed Actions

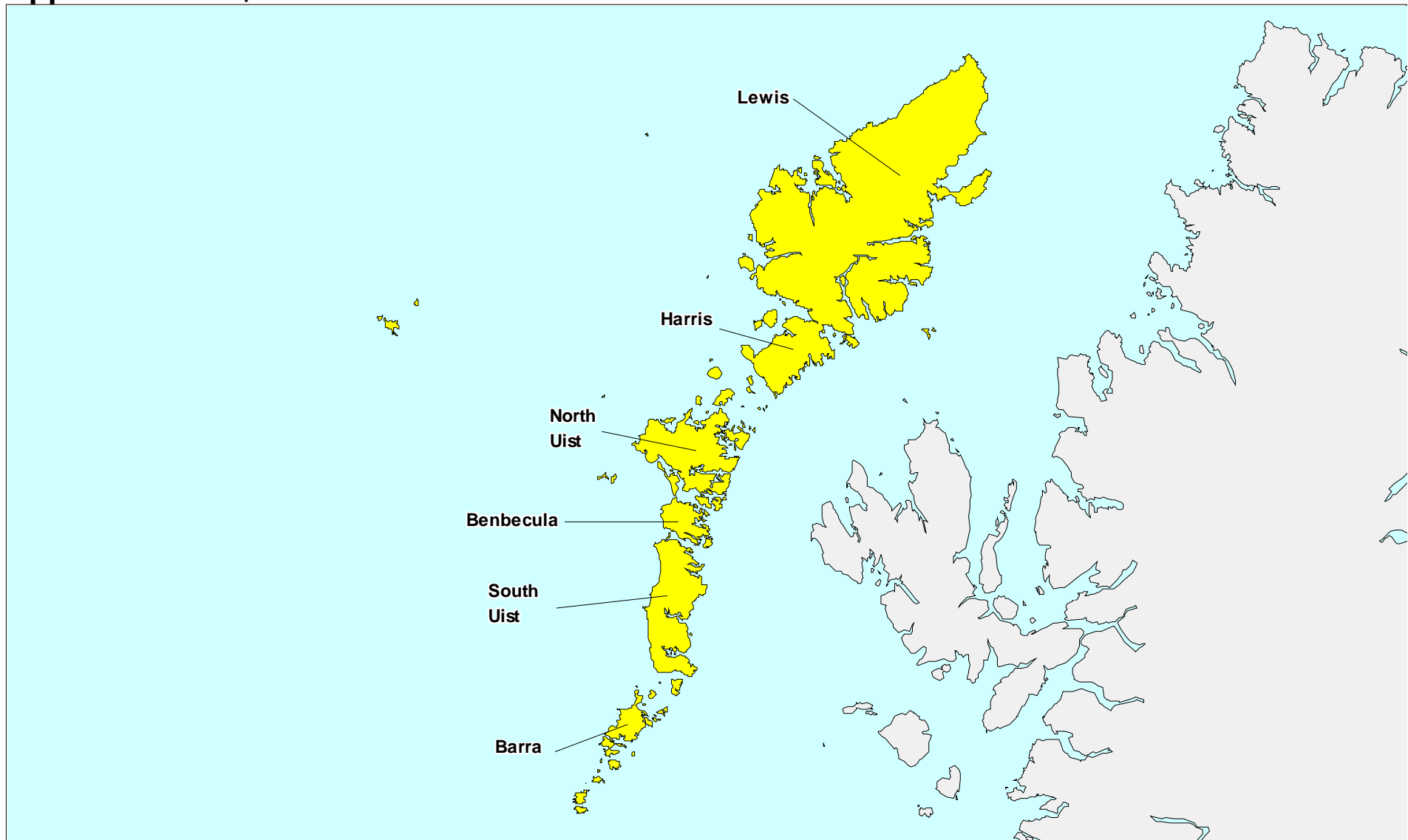
The Updating and Screening Assessment has not identified the need to proceed to a Detailed Assessment for any pollutant.

9 References

Not applicable

Appendices

Appendix A – Map of the Western Isles



Comhairle nan Eilean Siar - Scotland