



# 2014 Air Quality Progress Report for Comhairle nan Eilean Siar

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

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## Executive Summary

This report considers local air quality management in the Western Isles, examining relevant policy and technical guidance documents.

As in previous submissions there are no significant changes and no new air pollution sources have been identified however there is some proposed future developments mentioned. Further information on these developments will be provided in the subsequent progress reports and updating and screening assessments as and when they take place.

There has been no air quality monitoring data gathered in the Western Isles for 2013. Previously the only pollutant that was tested for was Nitrogen Dioxide (NO<sub>2</sub>), as the reported levels were significantly lower than the action levels monitoring was stopped.

This report concludes that detailed assessments are not required for any pollutant.

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# 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 off the North West coast of Scotland; the main islands in the chain are Lewis, Harris, North Uist, Benbecula, South Uist and Barra (Appendix 1). The Western Isles has a land area of 290, 000 hectares and a coastal line of 2, 700 km. The islands measure 210 km from the Butt of Lewis in the north to the uninhabited small islands of Berneray and Mingulay in the southern extremity. The islands are 60 km at their widest point and also include the archipelago of St. Kilda.

There are approximately 28, 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.

The main economic sectors are public services, construction, fishing, fish farming and fish processing. There are over 6, 000 registered crofts in the islands with the majority of these in use. It is estimated that there are over 100, 000 livestock on the island.

## 1.2 Purpose of Progress Report

This report fulfils the requirements of the Local Air Quality Management (LAQM) 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.

Progress Reports are required in the intervening years between the three-yearly Updating and Screening Assessment reports. Their purpose is to maintain continuity in the LAQM process.

They are not intended to be as detailed as Updating and Screening Assessment Reports, or to require as much effort. However, if the Progress Report identifies the risk of exceedence of an Air Quality Objective, the Local Authority (LA) should undertake a Detailed Assessment immediately, and not wait until the next round of Review and Assessment.

### **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,  $\text{mg}/\text{m}^3$  for carbon monoxide) with the number of exceedences in each year that are permitted (where applicable).

**Table 1.1 Air Quality Objectives included in Regulations for the purpose of LAQM in Scotland**

Pollutant	Air Quality Objective		Date to be achieved by
	Concentration	Measured as	
Benzene	16.25 µg/m <sup>3</sup>	Running annual mean	31.12.2003
	3.25 µg/m <sup>3</sup>	Running annual mean	31.12.2011
1,3-Butadiene	2.25 µg/m <sup>3</sup>	Running annual mean	31.12.2003
Carbon monoxide	10 mg/m <sup>3</sup>	Running 8-hour mean	31.12.2003
Lead	0.50 µg/m <sup>3</sup>	Annual mean	31.12.2004
	0.25 µg/m <sup>3</sup>	Annual mean	31.12.2008
Nitrogen dioxide	200 µg/m <sup>3</sup> not to be exceeded more than 18 times a year	1-hour mean	31.12.2005
	40 µg/m <sup>3</sup>	Annual mean	31.12.2005
Particulate Matter (PM <sub>10</sub> ) (gravimetric)	50 µg/m <sup>3</sup> , not to be exceeded more than 7 times a year	24-hour mean	31.12.2011
	18 µg/m <sup>3</sup>	Annual mean	31.12.2011
Sulphur dioxide	350 µg/m <sup>3</sup> , not to be exceeded more than 24 times a year	1-hour mean	31.12.2004
	125 µg/m <sup>3</sup> , not to be exceeded more than 3 times a year	24-hour mean	31.12.2004
	266 µg/m <sup>3</sup> , not to be exceeded more than 35 times a year	15-minute mean	31.12.2005

## **1.4 Summary of Previous Review and Assessments**

Previous rounds of review and assessment have not determined the need for a detailed assessment and no air quality management areas have been declared in the Western Isles area.



## **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 2013. There are no automatic monitoring sites situated within the Western Isles area.



### **2.1.2 Non-Automatic Monitoring Sites**

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

There was no air quality monitoring carried out in the Western Isles during 2013. 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. There has been no air quality monitoring carried out since 2007.



## **2.2 Comparison of Monitoring Results with Air Quality Objectives**

There have been no exceedences identified as Comhairle nan Eilean Siar have not undertaken any automatic or non-automatic monitoring in the Western Isles.

### **2.2.1 Nitrogen Dioxide (NO<sub>2</sub>)**

The last round of monitoring data for Nitrogen Dioxide was carried out in 2007 by using diffusion tubes at four different locations within Stornoway. The annual mean concentrations were adjusted for bias and there were no results exceeding 40 µg/m<sup>3</sup>. There has been no monitoring carried out for any pollutants since 2007. The subsequent Updating and Screening Assessments and Progress Reports have not shown the need for air quality monitoring to continue. However if in the future there are changes noted in the Progress Report and Updating and Screening Assessments air quality monitoring may be considered.

#### **Automatic Monitoring Data**

There have not been any automatic monitoring stations within the Western Isles.



## Diffusion Tube Monitoring Data

The last round of monitoring data for Nitrogen Dioxide was carried out in 2007 by using diffusion tubes at four different locations within Stornoway. The annual mean concentrations were adjusted for bias and there were no results exceeding 40  $\mu\text{g}/\text{m}^3$ . There has been no monitoring carried out for any pollutants since 2007. The subsequent Updating and Screening Assessments and Progress Reports have not shown the need for air quality monitoring to continue. However if in the future there are changes noted in the Progress Report and Updating and Screening Assessments we may consider starting air quality monitoring again.





### **2.2.2 Particulate Matter (PM<sub>10</sub>)**

There are currently no monitoring site locations for measuring particulate matter (PM<sub>10</sub>) in the Western Isles. However it is a pollutant that may be considered for monitoring in the future as there are plans to improve the harbour area and increase its capacity.



**2.2.3 Sulphur Dioxide (SO<sub>2</sub>)**

There are no monitoring results for SO<sub>2</sub> for 2013.

**2.2.4 Benzene**

There was no monitoring of benzene in 2013.



**Summary of Compliance with AQS Objectives**

Comhairle nan Eilean Siar does not have an Air Quality Strategy in place.

Comhairle nan Eilean Siar has examined the results from monitoring in the Western Isles. Concentrations are all below the objectives, therefore there is no need to proceed to a Detailed Assessment.

### 3 New Local Developments

Comhairle nan Eilean Siar confirms that there are no new or newly identified local developments which may have an impact on air quality within the Local Authority area.

Comhairle nan Eilean Siar confirms that all the following have been considered:

- **Road traffic sources**
- **Other transport sources**
- **Industrial sources**
- **Commercial and domestic sources**
- **New developments with fugitive or uncontrolled sources.**

## **4 Local / Regional Air Quality Strategy**

Comhairle nan Eilean Siar has not developed a local air quality strategy. The Western Isles has not had to designate any Air Quality Management Areas and do not have any areas where pollutant levels have been exceeded or are close to exceedence levels.



## **5 Implementation of Action Plans**

Comhairle nan Eilean Siar does not have an Action Plan Progress Report in place.





## **6 Conclusions and Proposed Actions**

### **6.1 Conclusions from New Monitoring Data**

There has been no new monitoring data for the Western Isles in 2013.

### **6.2 Conclusions relating to New Local Developments**

There are proposals to extend Stornoway Harbour and increase the number of vessels using the facility annually. However there has not been any planning application's put forward. This will be given more detailed consideration in the next Updating and Screening Assessment however it does not give rise to the need of a Detailed Assessment at present.

### **6.3 Other Conclusions**

Comhairle nan Eilean Siar is not considering implementing an Air Quality Action Plan for the Western Isles at present. It may consider future air quality monitoring if the proposals for developing and extending Stornoway Harbour proceed. This will be considered in future Updating and Screening Assessments.

### **6.4 Proposed Actions**

Comhairle nan Eilean Siar's next course of action is to submit an Update and Screening Assessment Report in 2015.

## 7 References

Map provided by Comhairle nan Eilean Siar MSA Licence Agreement Number 100229965.

# Appendices

## Appendix 1: Map of the Western Isles

