

Air Quality in Scotland

Welcome to the fourth Scottish Air Quality Database (SAQD) stakeholder's newsletter. This newsletter is produced on behalf of the Scottish Government by Ricardo Energy & Environment (Ricardo) and is designed to provide regular updates and news regarding the SAQD and local air quality matters to all stakeholders. This may include; updates to the network; new information on air quality issues; updates on changes in policy and procedures; new initiatives and events; technical reports; and how to access data using the Air Quality in Scotland website.

If you have any information which you think would be beneficial to include in a future newsletter, please email us at info@scottishairquality.co.uk.

NEWS

SCOTTISH AIR QUALITY DATABASE AND WEBSITE SEMINAR

The Scottish Air Quality Database and Website Annual Seminar is taking place on **Monday 22 January 2018** at IET Glasgow Teachers Building, 14 St Enoch Square, Glasgow, G1 4DB.

January 2018						
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1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

The Provisional Agenda is available to download at <http://www.scottishairquality.co.uk/news/index?id=561>.

There are still limited spaces available, so if you are interested in attending this free event, please complete the [delegate registration form](#) and email this form to the SAQD Admin Team at: SAQD@ricardo.com by Monday 15th January. If you need further information on this event go to the Air Quality Scotland [website](#).

UPDATED BACKGROUND MAPS FOR LOCAL AUTHORITY LAQM REVIEW & ASSESSMENT PURPOSES

Scotland specific background maps of NO_x, NO₂ and PM₁₀ concentrations for Local Authority Review and Assessment purposes have recently been updated. The updated maps use baseline data for 2015 (previously 2013).

2015 background concentrations are provided for each 1 km x 1 km grid square and for each local authority area. Projected background concentrations have been calculated for 2015 to 2030 from a base year of 2015. A separate CSV file is available for each Local Authority area, pollutant, and year from 2015 to 2030. They are available for download by local authority from the Air Quality in Scotland website (<http://www.scottishairquality.co.uk/data/mapping?view=data>).

Scotland specific maps are not currently available for PM_{2.5}. The Scottish Government advise that for this pollutant, [Defra UK wide background maps](#) from a base year of 2015 are used in the review and assessment of local air quality.

UPDATED TRENDS SUMMARY

A series of graphs of air quality data in Scotland have been prepared using the latest figures up to and including 2016. The graphs illustrate trends for pollutants NO₂, PM₁₀, PM_{2.5} and O₃ over the last ten years. These graphs have been produced using the Openair 'TheilSen' tool and using de-seasonalised data.

The trend analysis can be viewed at: <http://www.scottishairquality.co.uk/data/trends>. The full trend analysis is available in the [2016 annual report](#).

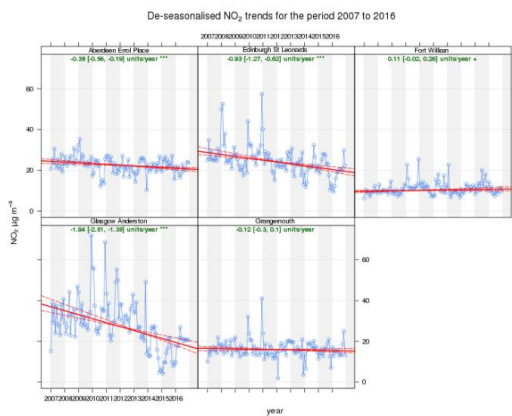


Figure 1. Trends in NO₂ concentrations for non-roadside sites (2007-2016)

AIR QUALITY SCOTLAND BROCHURE 2016 PUBLISHED

This brochure has been produced on behalf of the Scottish Government and is the tenth in an annual series. It aims to provide a summary of the air quality monitoring and associated

work carried out by and on behalf of the Scottish Government and local authorities during 2016.

Available at: <http://www.scottishairquality.co.uk/news/reports?view=technical&id=557>



Figure 2. Air Quality Scotland Brochure 2016

PUBLICATION OF THE SCOTTISH AIR QUALITY ANNUAL REPORT FOR 2016

The report provides a summary of the latest ratified air quality monitoring results for

Scotland in 2016 - together with an update on project progress including QA/QC, website improvements, AQ mapping and the

annual seminar. The report also includes information on the air pollutant emissions in Scotland obtained from the National Atmospheric Emissions Inventory and the Scottish Environment Protection Agency (SEPA) Scottish Pollution Release Inventory.

Available at: <http://www.scottishairquality.co.uk/news/reports?view=technical&id=558>

RECENTLY PUBLISHED REPORTS

The following reports have recently been released:

Air Quality Pollutant Inventories for England, Scotland, Wales and Northern Ireland: 1990 - 2015



Figure 4. AQ Pollutant Inventories for England, Scotland, Wales and Northern Ireland: 1990 – 2015 Report

The 'Air Quality Pollutant Inventory Report for England, Scotland, Wales and Northern Ireland: 1990-2015' has now been published. The report presents emission inventories for the priority Air Quality pollutants (ammonia, carbon monoxide, nitrogen oxides, non-methane volatile organic compounds, particulate matter, sulphur dioxide and lead) for the constituent countries of the UK.

Available at: <http://www.scottishairquality.co.uk/news/reports?view=technical&id=554>

UK Emission Mapping Methodology 2015

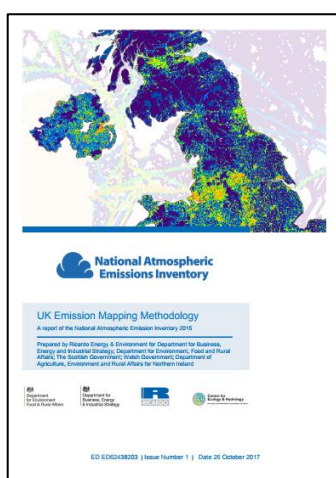


Figure 5. UK Emission Mapping Methodology 2015 Report

This report describes the methods used to map emissions in the National Atmospheric Emissions Inventory (NAEI). The maps provide spatially resolved modelled estimates of emissions compiled at 1x1 km resolution for each sector.

Available to view at: <http://www.scottishairquality.co.uk/news/reports?view=technical&id=555>

SAQD QAQC ACTIVITIES

Ricardo began the routine six monthly audits in December 2017. Ricardo will contact each local authority in advance to confirm the date of the scheduled audit. If there are new Local Site Operators (LSO) that require full training, please let Ricardo know. Likewise, current LSO can also attend site to meet the auditors, review

calibration procedures and ask any other questions.

HOW TO

This section gives advice to readers on all aspects of the website, including accessing/downloading data, as well as to address general site queries. If you have any requests that you would like included within the newsletter, please feel free to contact us.

RECEIVE UPDATES FROM KNOW AND RESPOND

Know and Respond is a free service that sends registered users an alert message if air pollution in their area is forecast to be



moderate, high or very high. The alert service is provided for anyone wishing to know about the quality of the air they breathe. It will be of benefit to people with medical conditions that may be affected by pollution, such as asthma, bronchitis and emphysema.

[Sign up for free alerts now!](#)

ACCESS THE NEW 2015 BACKGROUND MAPS

Under the 'Data & Maps' tab on the SAQD website, select 'Maps of annual concentrations' on the side bar menu. There are three different options, please select 'Data for Local Authority Review and Assessment purposes' to access the maps.

Use the drop-down selectors to choose the local authority, pollutant, and year you require. The datasets for the whole of Scotland can be downloaded by selecting "Scotland" from the Local Authority selector. The maps downloaded here are based on Great Britain Ordnance Survey (OSGB) co-ordinates.

Finally, select the "Download CSV" button and save the excel document. Note that the data provided in the CSV comes numerically.

QUESTION AND ANSWERS SECTION

This section will provide answers to frequently asked questions that relate to different aspects of LAQM ranging from LSO duties to advanced data analysis queries. If you have a question you would like to be answered in this section please contact info@scottishairquality.co.uk.

Q: How often should I be attending site to carry out a routine LSO Calibration and change the gas analyser filter?

A: The frequency with which a routine LSO Calibration should be carried out depends on the site classification:

- Urban traffic (roadside or kerbside) sites require calibrations every two weeks.
- Urban background, urban industrial and suburban sites require calibrations every four weeks.
- Rural sites only need a calibration every three months.

Please note, that after every calibration the gas filter must be changed to ensure the analyser is able to measure concentrations that are truly representative of ambient conditions. If you have a site that relies solely on automatic calibrations, local site operators still need to attend sites to change analyser filters. They also need to regularly check the system is producing reliable calibration data. This includes checking the pressure of the cylinders and stability of results.

Q: If a new gas cylinder is delivered to my site, do I need to inform Ricardo?

A: Yes! If you are an LSO for a site and a new gas cylinder is delivered and replaces your old cylinder, it is crucial that you send on the following to Ricardo (info@scottishairquality.co.uk):

1. The new gas information (i.e. Nitrogen Oxide, Sulphur Dioxide, Carbon Monoxide)

2. new cylinder number and
3. the “actual concentrations”



Figure 6. Gas cylinder label

The new cylinder details will then be entered into Ricardo’s data management system and will ensure that the data is scaled appropriately during the ratification process.

STAY CONNECTED

<p>SAQD PROJECT MANAGEMENT</p> <p>David Hector Tel: 01235 753523 E-mail: david.hector@ricardo.com</p> <p>Stuart Sneddon Tel: 01235 753015 Email: stuart.sneddon@ricardo.com</p> <p>SAQD PROJECT DATA MANAGEMENT</p> <p>Stephen Stratton Tel: 01235 753072 Email: stephen.stratton@ricardo.com</p>	<p>SCOTTISH GOVERNMENT</p> <p>Andrew Taylor Email: andrew.taylor2@gov.scot</p>
<p>RICARDO ENERGY & ENVIRONMENT FIELD OPERATIVES</p> <p>Susannah Telfer Tel: 01235 753434 E-mail: susannah.telfer@ricardo.com</p> <p>Sam Copsey Tel: 01235 753153 E-mail: sam.copsey@ricardo.com</p>	<p>Ashleigh Norrie Tel: 01235 753663 E-mail: ashleigh.norrie@ricardo.com</p> <p>Stephen Gray Tel: 01235 753525 E-mail: stephen.gray@ricardo.com</p>
<p>Visit our YouTube page https://www.youtube.com/user/AirQualityScotland</p> 	<p>Follow us on Twitter</p>  @scotairquality
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