

Air Quality in Scotland

Welcome to the 13th 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 aq-monitoring-scotland@ricardo.com.

NEWS

2021 AIR QUALITY DATA NOW FULLY RATIFIED AND AVAILABLE FOR DOWNLOAD

The 2021 dataset is now fully ratified and available via the Air Quality Scotland website. You can access the dataset via the "Data & Maps" tab then "Measurement and Annual Statistics" tab (<http://www.scottishairquality.scot/data/data-selector>). You can also access the relevant statistical data from the individual sites statistic pages (i.e. <https://www.scottishairquality.scot/latest/site-info/ABD1>).

If you experience any issues regarding accessing this data or have queries regarding the data itself please contact David Hector (david.hector@ricardo.com) or Stephen Stratton (stephen.stratton@ricardo.com).

2021 ANNUAL STATISTICS REPORT

The Annual Statistics report for 2021 are now available on the website and can be found here <https://www.scottishairquality.scot/laqm/statistics>.

If you need help deciphering the information presented in these reports or have issues opening the documents please do not hesitate in contacting David Hector or one of the Ricardo team (please see below "Ricardo Energy & Environment Field Operatives" for more contact details).

AIR QUALITY IN SCOTLAND ANNUAL SEMINAR 2022

The Air Quality in Scotland Annual Seminar 2022, run by Scottish Government as part of the Scottish Air Quality Database and Website project, was carried out over three 2-hour long webinars on:

- Wednesday 16th March,
- Wednesday 23rd March and
- Wednesday 30th March

Each webinar was attended by between 80 – 100 delegates. We had a number of very interesting talks this year on subjects which includes: The new WHO Air Quality Guideline Objectives; The links Between Air Quality and Covid-19; Indoor Air pollution; NEMO – a new initiative to improve air quality and reduce noise in cities; Low Emission and Clean Air Zones – What we have learnt so far; CARES – City Air Remote Emission Sensing Project; and AIRLAB Microsensor Challenge project.

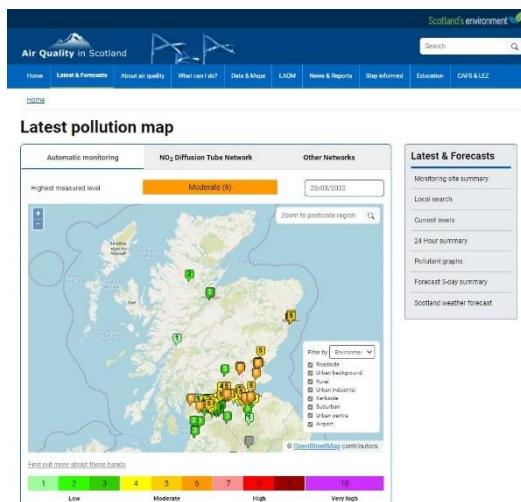
In addition, we are also pleased to have Rosamund Kissi Debrah talking about the important work carried out by the Ella Roberta Family Foundation.

We are delighted to also provide at the start of [Webinar 3](#), a message from Scottish Government which is provided by the Scottish Minister for Environment, Biodiversity and Land Reform Mairi McAllan.

All three webinars have been recorded and can be found on the Air Quality in Scotland website [here](#).

MARCH 2022 AIR POLLUTION EPISODE

Scotland experienced a Particulate Matter (PM) transboundary pollution episode from 21st – 26th March 2022, with PM Daily Air Quality Index (DAQI) bandings of 'Moderate' to 'High'. Mild, calm meteorological conditions meant that there was little dispersion of locally emitted pollutants, which was added to by emissions blown in from continental Europe due to a change in direction of the predominant air mass.



For more information on the March 2022 pollution episode and how transboundary pollution can impact Scottish air quality, please read the full report [here](#).

REVOCATION/AMENDMENTS OF AQMAS

At the moment a number of local authorities have completed or are currently going through the process of revoking/amending AQMAS. Once the process is complete can all local authorities please forward on the relevant information on to the Defra LAQM page <https://laqm.defra.gov.uk/1rsw2/index.php>. The Defra LAQM database is where the information will be held centrally and also the database that the new Air Quality in Scotland

website will use to update the new AQMA interactive map.

Each Local authority should have an account set up to access this page but if this has been forgotten you can contact the LAQM support helpdesk. Details provided below.

LAQM Helpdesk contact details:

Telephone: 0800 0327953

E-mail: laqmhlpdesk@uk.bureauveritas.com

AIR QUALITY EXPERT BLOGS – AIR QUALITY SENSORS

When investing many hundreds or even thousands of pounds in an air quality sensor system, you want to have some confidence that what you're about to buy actually works, right?

Read expert blogs "[Air quality sensors... can you simply plug and play?](#)" and "[Independent QA/QC and correction of measurement data from 'low-cost' air quality sensors is essential](#)" for more information on the potential pitfalls to be aware of when working with sensor data and the right questions to ask suppliers to get value from your investment.

RESEARCH STUDY TO INVESTIGATE PARTICULATE MATTER MONITORING TECHNIQUES IN SCOTLAND

The initial pilot study was carried out over a 12-month period between January 2020 and January 2021. The aim of the study was to help identify the reason for a noticeable change in particulate matter (PM) concentrations; and also provide certainty in measured PM concentrations for authorities seeking to revoke PM₁₀ air quality management areas (AQMAS). Due to the significant impact of particulate matter on human health, it is crucially important that PM₁₀ AQMAS are not revoked unless it is certain that the objectives are not being exceeded. The pilot research study is available [here](#).

The results indicated that current corrections for equivalence may not be accurately representing how the automatic monitoring methods respond at lower concentration levels and meteorological conditions, such as those observed in Scotland. Taking into consideration the results of this study, Scottish Government decided to extend the study for a further 12 months. This extension will focus on the Fidas analysers (as these are the predominant analyser used within the network) and will be more closely aligned with EN 16450, using duplicate Fidas and reference samplers within the Glasgow Hope St monitoring site. This approach will provide a more robust dataset to determine whether it is appropriate to apply correction factors to PM data used within the Scottish Air Quality Database (SAQD) monitoring network.

The extension study will finish in July 2021, with a report expected the following month.

[PUBLICATION OF THE SCOTTISH AIR QUALITY DATABASE ANNUAL REPORT FOR 2020](#)

The [Scottish Air Quality Database Annual Report for 2020](#) has now been published. The report provides a summary of ratified air quality monitoring results for Scotland in 2020 - together with an update on project progress including QA/QC, pollution trend analysis, air pollution mapping, and pollution emissions data.

The report also includes information on how Covid-19 lockdown restrictions affected air pollution in Scotland during 2020.

[AIR QUALITY SCOTLAND BROCHURE 2020 PUBLISHED](#)

Scottish Government have published the [Air Quality Scotland Brochure 2020](#), this brochure has been produced on behalf of the Scottish Government and is the thirteenth 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 2020.

[UPDATED LAQM COVID LOCKDOWN EFFECTS ON AIR QUALITY REPORTS](#)

Each local authority Covid-19 report has been updated to examine the impact of lockdown measures on evolving ambient air quality data from January 2020 through to January 2022. Each LAQM report can be found under the appropriate local authority's name [here](#).

[SAQD QAQC ACTIVITIES](#)

Ricardo will begin the routine six monthly summer audits in June. Ricardo will contact each local authority in advance to confirm the date of the scheduled audit. If you would like to attend the audit for refresher LSO training, please advise the auditor.

An audit summary will be sent to you after each audit visit. If you have not received an audit summary, please contact aq-monitoring-scotland@ricardo.com.

[QUESTION AND ANSWERS SECTION](#)

This section will provide answers to frequently asked questions that relate to different aspects of LAQM ranging from Local Site Operator (LSO) duties to advanced data analysis queries. If you have a question you would like to be answered in this section, please contact aq-monitoring-scotland@ricardo.com.

Q. Why is it important to update Ricardo of any local activities that may impact the data from your monitoring sites?

A: Local activities like road works, construction and general maintenance (i.e. cutting back of trees and shrubs) can directly impact the air quality monitoring data, thus causing the raw data at sites to spike or exhibit periods of unusually high data. LSO insight is invaluable in keeping us informed and ensures that this genuine and valid data is accounted for during the ratification process and is not removed from the dataset. Please email aq-monitoring-scotland@ricardo.com if you are

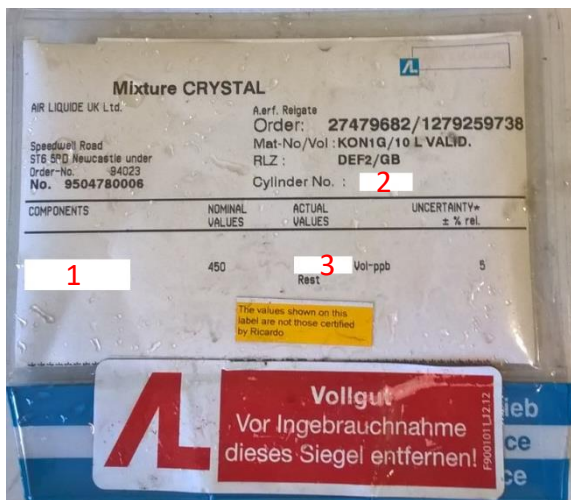
aware of any issues that may affect the data at any of your sites.

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 (aq-monitoring-scotland@ricardo.com):

1. The new gas information (i.e. Nitrogen Oxide, Sulphur Dioxide, Carbon Monoxide)
2. new cylinder number and
3. the “actual concentrations”

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

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