SAQD Annual Seminar 2014
- New and Improved Database & Website

26th March 2014

Paul Willis – Air Quality Knowledge Leader

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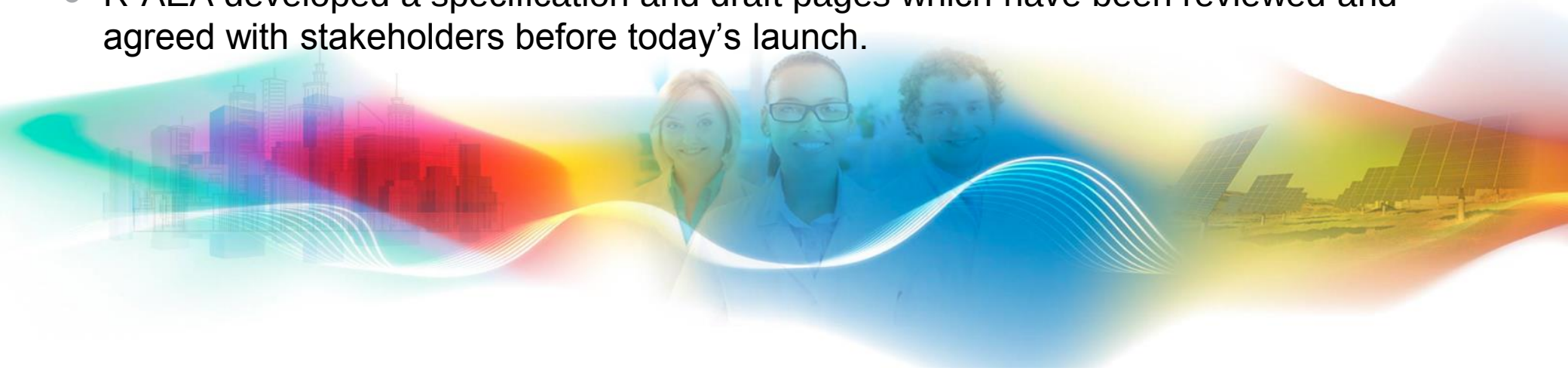
Rationale and Planning

- The design of the Air Quality Scotland website and database has remained largely unchanged since the pilot study in 2007.
- Essential security updates have been applied but some of the underlying technology required upgrading and migration to a more modern server.
- The 2012 ITT recognised that it was timely to update the backend systems and to take the opportunity to refresh the website design, functionality and content.
- A number of designs and ideas for new functionality were put forward and discussed with feedback requested at the 2013 annual SAQD seminar.
- Many of the ideas were positively received. SG reviewed and prioritised the proposals and gave approval for those within the budget available.
- R-AEA developed a specification and draft pages which have been reviewed and agreed with stakeholders before today's launch.



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Home Page

- Eye catching and modern new design.
- Designed with Accessibility in mind.
  - More immediate and clear access to latest concentrations and forecast.
  - Created using the most modern best practice. Specifically using “progressive enhancement” and considering all device capability (screen-reader, browser type, mobile device).
  - Fully tested and evaluated with Accessibility software.
- Retains continuity and familiarity through some of the existing SAQD branding – mountains logo and website name.
- Retains the existing URL.

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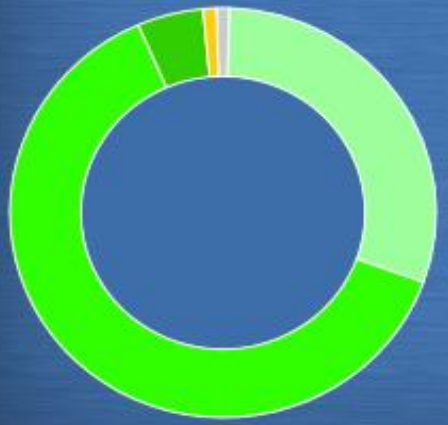
Air Quality in Scotland

e.g. what is air pollution? SEARCH

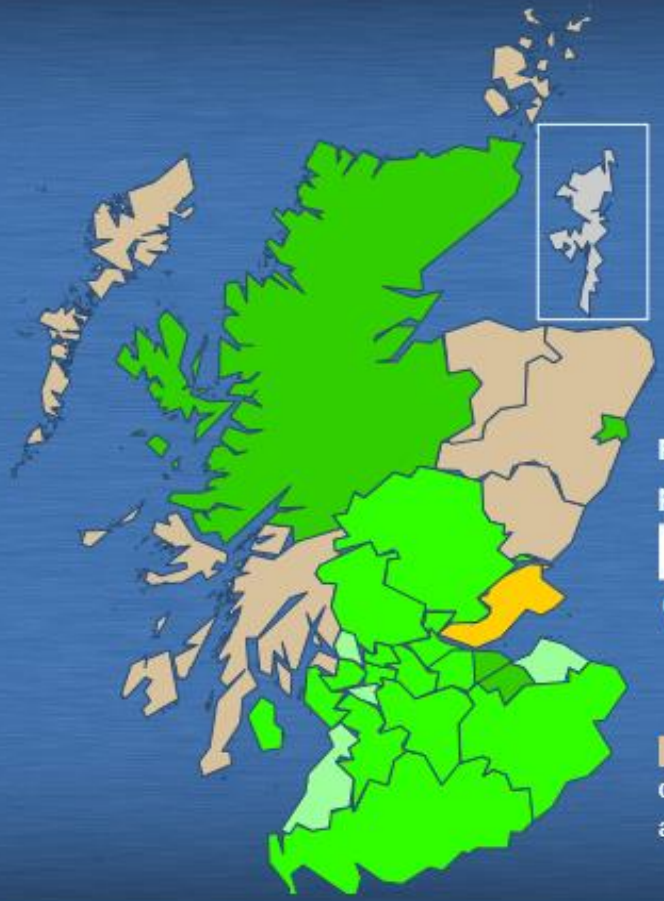
Home | Latest & Forecasts | About air quality | What can I do? | Data & Maps | LAQM | News & Reports | Stay Informed | Know & Respond | Education

Air pollution levels across Scotland updated hourly

Summary from 91 monitoring sites.
View a map of monitoring sites across Scotland »
Last updated at 15:00 Monday 24th March 2014.



- No Data (Index 0)
- Low (Index 1)
- Low (Index 2)
- Low (Index 3)
- Moderate (Index 5)



Focus on air quality in your postcode area

e.g. AB11 SEARCH
or detect my location

Near real-time monitoring data is not available for this local authority. Why is this?

Index (1-10)	1 2 3 Low	4 5 6 Moderate	7 8 9 High	10 Very high

Air Pollution Forecast

This forecast is for Tomorrow, Tuesday 25th March 2014

- Highlands
- North East Scotland
- Central Scotland
- Scottish Borders
- Edinburgh Urban Area
- Glasgow Urban Area

In towns and cities near busier roads

Low (Index 3)

Elsewhere in towns and cities

Low (Index 3)

Rural Areas

Low (Index 3)

KNOW & RESPOND

FREE services that send you text messages or emails when air quality is forecast to be poor for the day ahead

KR
Know&Respond
Scotland

AIR POLLUTION DETECTIVES

LATEST NEWS

- **Mapped Background Air Pollution data and maps**
  11th November 2013
- **New Research Project - Assessing variations in roadside air quality with sampling height**
  8th November 2013
- **Clean Air Act Review - Call for Evidence**
  20th September 2013

More news...

GET THE APP

Download our free app for iPhone and Android giving you the latest air pollution information wherever you are.

Latest Data

- Colour-coded pie chart and local authorities map (based on worst case measurement) are available on the home page
- Concentrations presented according to the COMEAP DAQI recommendation.
- Postcode search
- “Detect my location”
- Local Authority click on map
- Filter by pollutant
- Alternative tabular version of the data, can be filtered by local authority.

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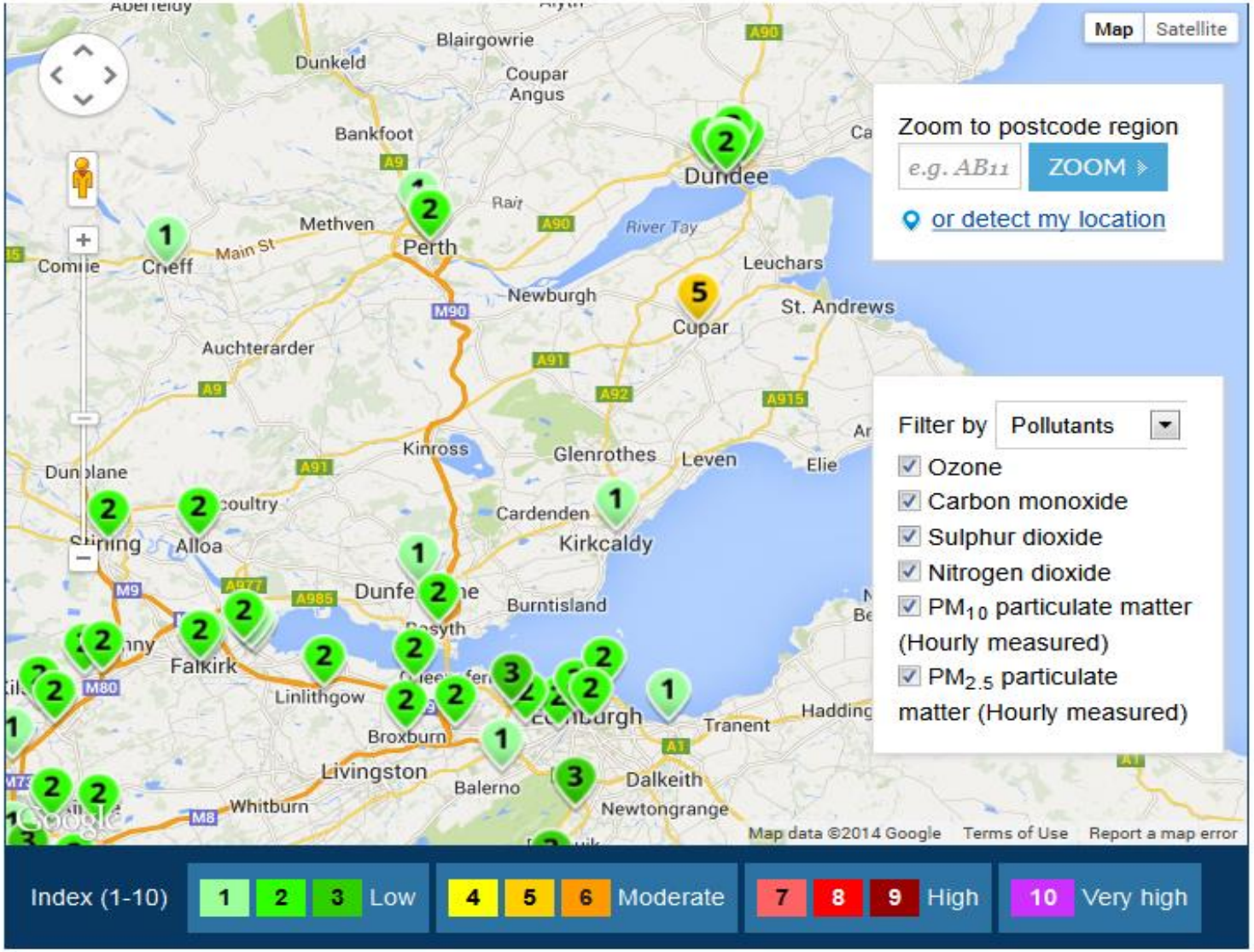
Latest pollution map



The interactive map above can be used to explore different Scottish air quality monitoring sites. Select a monitoring site to see detailed site information and the latest pollution measurements.

Latest & Forecasts

- Monitoring site summary
- Local search
- Current levels
- 24 Hour summary
- Pollutant and Site graphs
- Regional forecasts

Monitoring site summary

A summary of the Scottish monitoring sites and latest measurement DAQI pollution bands is shown below.

» View a list of closed monitoring sites
» View local authorities that do not have automatic monitoring

View Site List | View By Local Authority

Aberdeen City

Monitoring site	Band/Index	Last updated
Aberdeen Anderson Dr	LOW (Index 2)	24/03/2014 16:00
Aberdeen Errol Place	LOW (Index 2)	24/03/2014 15:00
Aberdeen King Street	LOW (Index 2)	24/03/2014 16:00
Aberdeen Market Street 2	LOW (Index 3)	24/03/2014 16:00
Aberdeen Union Street Roadside	LOW (Index 2)	24/03/2014 15:00

Individual monitoring locations

- Colour coded spots or AQ descriptor according to latest DAQI
- Direct access by one click to other station information
  - Latest pollutant data
  - Graphs + data download
  - Statistics
  - Station description
  - Photos

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Latest & Forecasts

- Monitoring site summary
- Local search
- Current levels
- 24 Hour Summary
- Pollutant and Site graphs
- Regional Forecasts

Aberdeen Errol Place

Site ID: ABD

Latest pollution level at this site is: **LOW (Index 2)**

Last updated: 17/12/2013 03:00

» View this site on the interactive map

Latest Data | Graphing | Statistics | Site Information | Site Photos

Aberdeen Errol Place was last updated 17/12/2013 03:00

Pollutant	Band	Concentration	Period
Ozone (O_3)	**LOW (2)**	54 ugm-3	8 Hour mean
PM_{10} particulate matter (Hourly measured)	**LOW (1)**	3 ugm-3 (Ref.eq)	24 Hour mean
$PM_{2.5}$ particulate matter (Hourly measured)	**LOW (1)**	3 ugm-3 (TEOM FDMS)	24 Hour mean
Volatile PM_{10} (Hourly measured)	Not applicable	0 ugm-3 (TEOM FDMS)	24 Hour mean
Volatile $PM_{2.5}$ (Hourly measured)	Not applicable	0 ugm-3 (TEOM FDMS)	24 Hour mean
Non-volatile $PM_{2.5}$ (Hourly measured)	Not applicable	3 ugm-3 (TEOM FDMS)	24 Hour mean
Non-volatile PM_{10} (Hourly measured)	Not applicable	4 ugm-3 (TEOM FDMS)	24 Hour mean
Nitric oxide (NO)	Not applicable	No data	Hourly mean
Nitrogen dioxide (NO_2)	Not applicable	No data	Hourly mean
Nitrogen oxides as nitrogen dioxide ($NOXasNO_2$)	Not applicable	No data	Hourly mean

Select a monitoring site to view

Aberdeen Errol Place | Select site

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Latest & Forecasts

Monitoring site summary

Local search

Current levels

24 Hour summary

Pollutant and Site graphs

Regional forecasts

Aberdeen Errol Place

Site ID: ABD

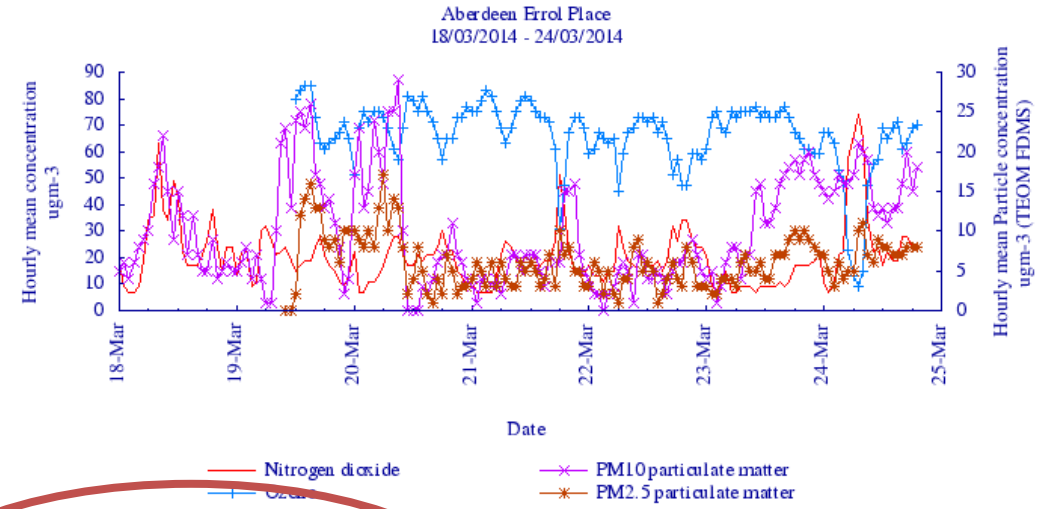
Latest pollution level at this site is: **LOW (Index 3)**

Last updated: 24/03/2014 20:00

» View this site on the interactive map

Latest Data | Graphing | Statistics | Site Information | Site Photos

Switch to 30 day graph | View Larger version (new window)



Download CSV Data

The data from the graph above can be downloaded below as CSV.
(Right click - Save As on the filenames)

- 7 day dataset
- 30 day dataset

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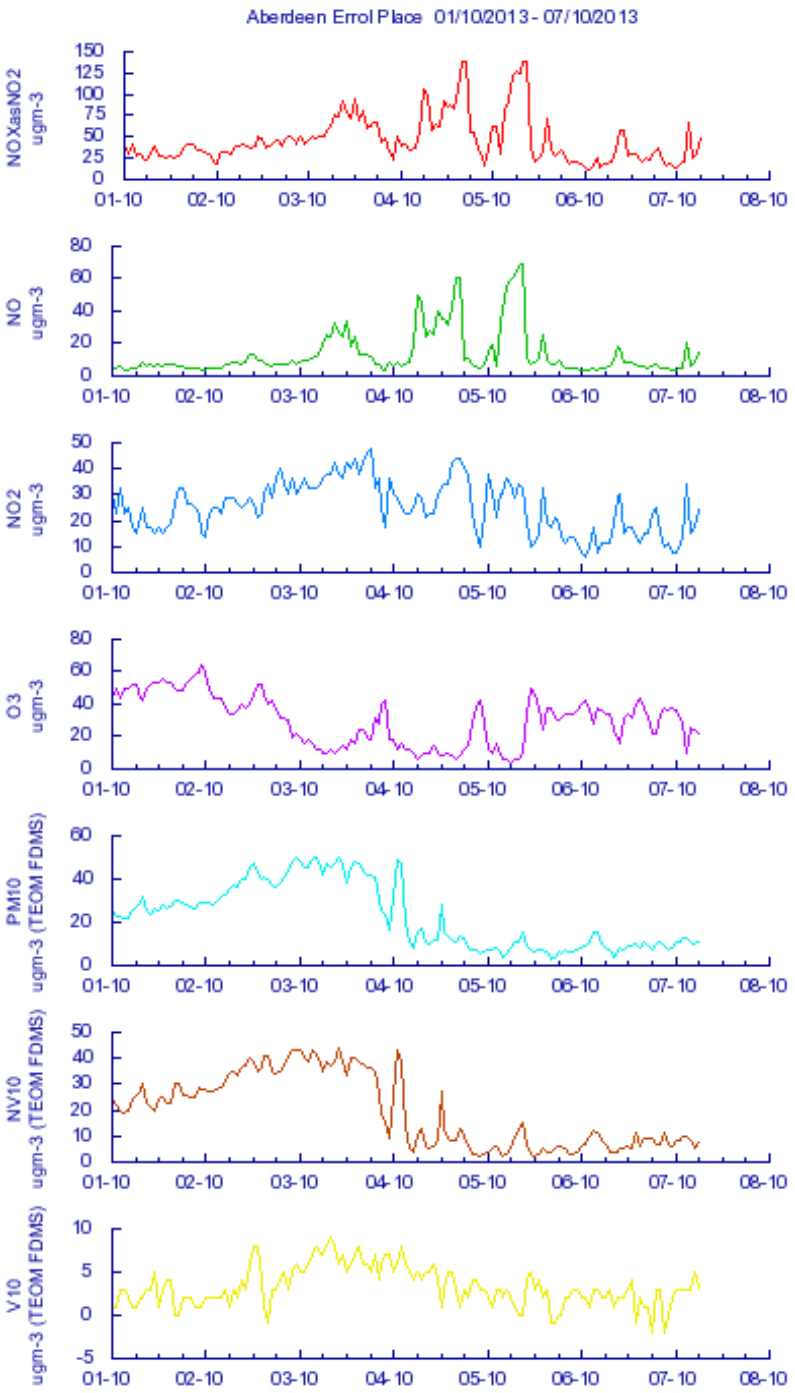

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Aberdeen Errol Place

Site ID: ABD

Latest pollution level at this site is: **LOW (Index 2)**

Last updated: 17/12/2013 03:00

» View this site on the interactive map

Aberdeen Errol Place

Latest Data | Graphing | Statistics | Site Information | Site Photos

Statistics for Aberdeen Errol Place

Year: 2012

Parameter: Nitrogen dioxide

Update Statistics

Monthly Statistics (monthly averages) for 2012

The monthly data below are average concentration data, followed by data capture rates (shown as a percentage of each month).

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
29	30	28	14	16	11	14	20	14	23	30	29
100%	100%	99%	100%	100%	99%	100%	99%	89%	100%	100%	35%

Annual Statistics for 2012

Annual Hourly Mean (to date)	21	µgm-3	Ratified	93% DC
Max Daily Mean	69	µgm-3	Ratified	
Max Hourly Mean	143	µgm-3	Ratified	

Key:

- P - Provisional Data
- R - Ratified Data

Exceedance Statistics for 2012

Air Pollution Bands

Band	Hours in Band	Days in Band
NO2 Low	8203	344
NO2 Moderate	0	0
NO2 High	0	0
NO2 Very High	0	0

Air Quality Strategy Objectives

Air Quality Strategy Objective for 2005 (NO2) Annual Mean > 40 microgrammes per metre cubed	
Status:	Not Exceeded
Air Quality Strategy Objective for 2005 (NO2) Hourly Mean > 200 microgrammes per metre cubed for more than 18 hours	
Status:	Not Exceeded

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Scotland Regional Air Quality Forecast

- Provided by the R-AEA duty forecaster each day.

- Includes information from daily regional pollutant and weather forecast models.
- Considers latest pollutant measurements and trends from the SAQD
- Uses expert judgement and experience of the forecaster.
- Fireworks, local fires, dust storms
- Populates the K&R alert service

* Based on the most recent reported full year results of Ricardo PLC and the acquired business of Ricardo-AEA

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Forecast for Central Scotland

Forecast for Today, Tuesday 17th December 2013

In towns and cities near busier roads

Low (Index 3)

Elsewhere in towns and cities

Low (Index 3)

Rural Areas

Low (Index 3)

Get alerts for Central Scotland

Know&Respond Scotland

It's easy to stay informed. With Know & Respond alerts, you can be notified when there is elevated pollution forecast for this region via SMS, email or voicemail.

If you download the app for iPhone and Android, you can also get push notifications on your phone.

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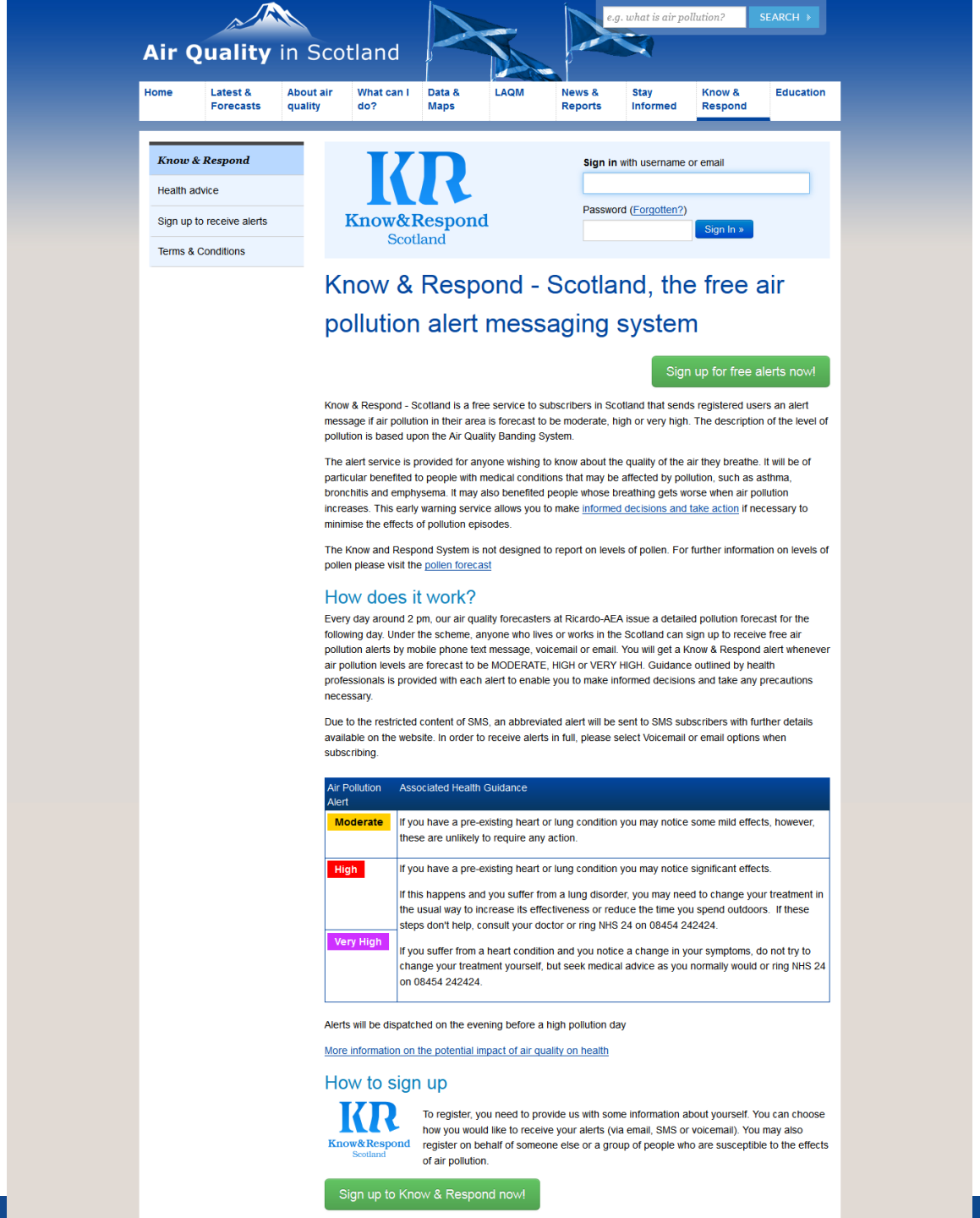

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About Air Quality

- Static content updated but largely unchanged from the previous website.
  - Pollutants
  - Legislation
  - Standards
  - DAQI
  - Monitoring
  - Related Links
  - Glossary

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What Can I Do?

- Pre-prepared and agreed information for concerned members of the public:
  - Health Protection advice from COMEAP and HPS experts.
  - Advice on how to reduce your own impact on air quality.
  - Future campaigns or further information can be added here as required.

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What can I do?

Protecting my health

Reducing pollutant emissions

What can I do about air pollution?

There are a number of actions you can take to help improve air quality and to protect yourself and your family from air pollution. One of the key things to remember is that every little helps, we can collectively make a difference to the air we all breathe.

Reduce emissions to air

One of the key sources of air pollution in Scotland is road traffic; some of the things you can do to help reduce emissions from road traffic are:

- Use your car less and use public transport if you can
- Walk or cycle, which is good for your health too
- Car share whenever possible
- Use a low emission vehicle such as an electric or hybrid car
- Avoid driving during congested peak traffic periods

Heating systems for homes and other buildings can also be a source of air pollution. Combustion of fuels such as coal, oil, gas and wood (sometimes now described as biomass) all result in emissions to air. Some of the things you can do to reduce emissions to air from domestic heating are:

- Be as energy efficient as possible by insulating your home
- Be aware of the pollution controls where you live - if you live in a smoke control area, you should be aware of the types of permitted fuels and appliances required when burning coal or wood
- Use electric heating powered by non-combustion forms of renewable energy

More information on this and links to other resources are provided in the Reducing Pollutant Emissions page of the site.

Protecting yourself from air pollution

By being aware of local air quality and how it can impact on health; you can help protect yourself and your family from air pollution. Some things you can do to reduce your exposure to air pollution are:

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What can I do?

- Protecting my health
- Reducing pollutant emissions

Protecting my health

Scientific studies have shown that air pollution impacts on human health. For healthy people, moderate air pollution levels are unlikely to have any serious short term effects. However, exposure to elevated pollutant concentrations and/or long term exposure to air pollution can lead to more serious symptoms and conditions affecting human health. These conditions mainly affect the respiratory and inflammatory systems, but can also lead to more serious conditions such as heart disease and cancer.

Reduce your exposure

We can all reduce our exposure to air pollution by:

- When cycling or walking, plan to avoid busy main roads – use quieter side roads and off-road routes if available
- If you are exercising outside avoid busy roads.
- Be aware of days when air pollution is high by registering for the Know & Respond service or using our free app for iPhone or Android smartphones.

Advice for people with asthma or other respiratory conditions

Those with existing heart or lung conditions are more susceptible to increased health risks associated with air pollution. The Committee of Medical effects of Air Pollution (COMEAP) advises that air pollution can increase the severity of symptoms for those with heart disease or respiratory conditions such as asthma. Adverse health conditions can be experienced during short term high pollution episodes or as a result of long term exposure to poor air quality.

Monitoring and modelling of air quality throughout the UK allows air pollution levels to be forecast. Be prepared by being informed of the air pollution levels in your local area through the use of the Know & Respond service. For people with respiratory conditions, being aware of local air pollution is important and, when required, other additional measures can be undertaken:

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What can I do?

Protecting my health

Reducing pollutant emissions

Reducing pollutant emissions

Reducing emissions to the air from our everyday activities will help improve local air quality. Everyone can do their bit to reduce air pollution:

What can I do to help reduce emissions from road traffic?

- Taking public transport or car sharing particularly during peak travel times reduces the number vehicles on the road and reduces emissions.
- Walking or cycling on short journeys reduces the traffic and in turn reduces emissions.
- Drive Efficiently if driving is required ensure you drive efficiently
- When buying a new car or vehicle buy the cleanest you can. Consider buying an electric or hybrid powered vehicle. If buying a petrol or diesel powered car, look for the 'Euro standard' ranging from 'Euro 1' (old) to 'Euro 5' (latest), newer cars with higher Euro standards tend to have lower emissions
- Care for your vehicle – check tuning, tyre pressure, brakes and fuel consumption – regular servicing helps keep your car efficient, saves fuel and reduces emissions.
- Switch off your engine when stationary (in some towns and cities it is an offence to leave your vehicle idling when stationary for more than a few minutes)

What can I do at home?

The heating of homes and buildings can contribute to air pollution depending on the energy source used. Find out more about how you can reduce emissions at home.

Data and Maps

- Access to the underlying database for consultants, researchers and local authorities.
- Direct data download to screen or file.
- View pre-prepared air pollution trends or carry out your own analysis using Openair Tools.
- View the latest Scottish spatial trends in air quality on pre-prepared maps, or access the underlying mapped data.
- Access Emissions data from the SPRI.
- The future – INSPIRE compliant data download and viewing services.

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Data

Data Selector

Trends

Emissions to air (SPRI)

Mapping

Openair

2008 TEOM PM10 data with VCM applied

Verification and ratification process

Data

These pages contain options for you to retrieve data relating to Air Quality in Scotland from the present day back to 1986.

The database contains tables of measured concentration data and statistics from the air quality monitoring sites operated by Defra, the Scottish Government and Local Authorities. Estimates of emissions - the amount of pollution produced by a range of activities can be obtained from the National Atmospheric Emissions Inventory (NAEI).

The air quality concentration statistics provided in this database are produced to high professional standards, undergoing regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference. Some air quality concentration information, including that published in "Key Scottish Environment Statistics" is released as National Statistics. The air quality database produces information compatible with the requirements of National Statistics.

Monitoring data

Automatic Networks produce hourly pollutant concentrations, with data being collected from individual sites by dial-up modem. The data go back as far as 1986 at some sites. By clicking on the map in the latest section of this website you can get detailed information for each site presently in operation.

Non-automatic Networks measure less frequently – either daily, weekly or monthly – and samples are collected by some physical means (such as diffusion tube or filter). These samples are then subjected to chemical analysis, and final pollutant concentrations calculated from these results.

Simple Statistics

A range of simple statistics are routinely calculated by the database for the automatic monitoring data each night. These include:

- Daily mean, maximum and minimum values for all pollutants.
- 8-hour running mean values for ozone and carbon monoxide.
- Daily maximum 8-hour running means for ozone.
- Running 24-hour means for PM10 particulate matter.

Data Output

There are three options for the output of your database download, according to the size of the data request. Small enquiries can be shown on your screen using minimum HTML, moderately sized enquiries can be e-mailed to you as an attachment in comma separated format, or the largest enquiries will be left on an ftp site, also in comma separated format, for you to collect. The data on the ftp site will be wiped within seven days if it is not retrieved.

The comma-separated format should make it easy to load the file into a spreadsheet once saved to your local machine. If the program does not recognise the format automatically, you will need to set the file type to "Text" and the separator as "Comma" for Lotus, or rename the file to [NAME].csv for Excel.

Data Verification and Ratification Process

For more information about this process, view the data verification and ratification process page.

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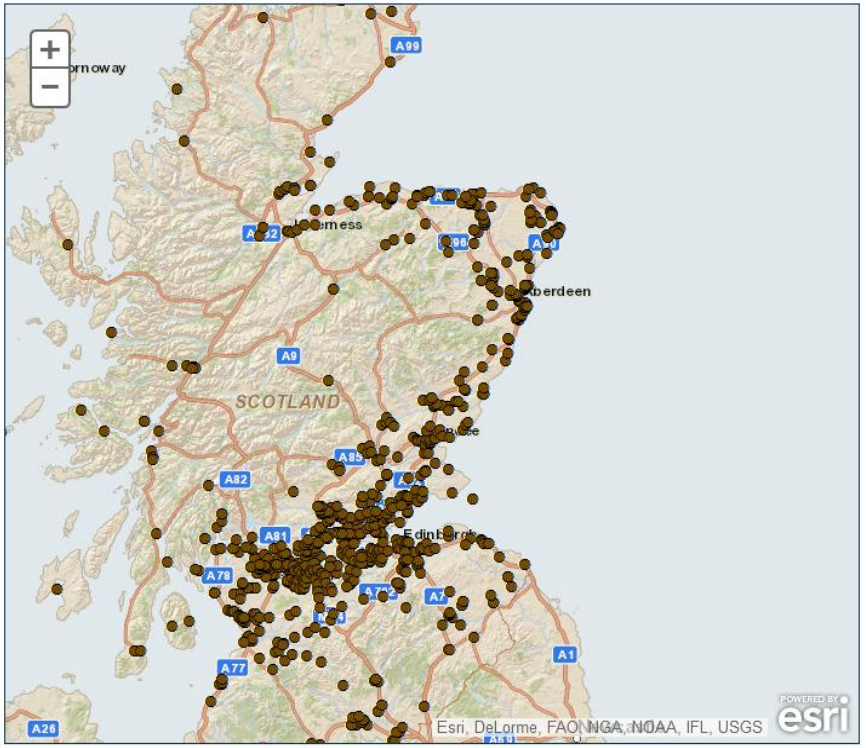
Data

- Data Selector
- Trends
- Emissions to air (SPRI)
- Mapping
- Openair
- 2008 TEOM PM10 data with VCM applied
- Verification and ratification process

Emissions to air (SPRI)

This is an interactive map to allow you to explore the Scottish Pollutant Release Inventory (SPRI) emissions data (Releases to Air) for the facilities across Scotland. This data comes from the SPRI dataset.

This map uses data hosted on the SPRI website, so please contact SEPA if you have any queries about this data.



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Emissions to air (SPRI)

Mapping

Annual mean PM10 Maps

Annual mean NO2 Maps

Data for Local Authority Review and Assessment purposes

Openair

2008 TEOM PM10 data with VCM applied

Verification and ratification process

Annual mean PM10 Maps

Annual mean PM10 concentrations were modelled for Scotland for 2011 at background and roadside locations. The Scottish modelling methodology is based on the UK Pollution Climate Mapping (PCM) approach, used to model the annual mean background and roadside PM10 concentrations for the UK as a whole.

The Scotland specific-model differs from the UK-PCM model as it uses appropriately scaled Scottish PM10 monitoring (FDMS, Partisol and VCM corrected TEOM) data and Scottish meteorological data exclusively to model the annual mean background and roadside PM10 concentrations for Scotland.

Many of the chemical components of the PM10 model are not affected by the Scotland-specific changes to the UK PCM model. This includes the contribution to the total PM10 mass from the following components:

- secondary inorganic aerosols (e.g., sulphate, nitrate, ammonium-based particles)
- secondary organic aerosols
- particles from long range transport
- sea salt aerosol, and
- iron and calcium based dusts.

Maps of modelled annual mean PM10 concentrations throughout Scotland for background and roadside locations are shown in Figures 1 and 2, respectively.

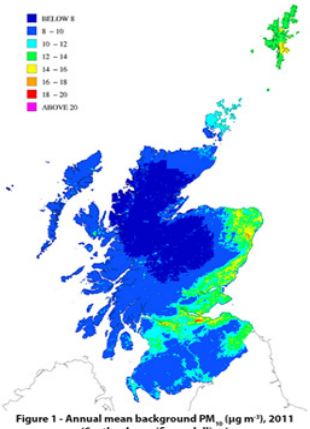

Figure 1 - Annual mean background PM_{10} ($\mu g\ m^{-3}$), 2011 (Scotland-specific modelling)

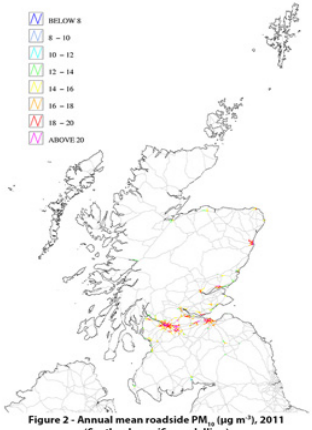

Figure 2 - Annual mean roadside PM_{10} ($\mu g\ m^{-3}$), 2011 (Scotland-specific modelling)

View large image of Figure 1

View large image of Figure 2

Scotland-specific background annual mean PM10 projections for 2015, 2020, 2025 and 2030

Maps showing the projected annual mean background PM10 concentrations for 2015, 2020, 2025 and 2030, from a base year of 2011. The projected background annual mean PM10 concentrations will be produced using the UK methodology, but as with the modelled Scottish annual mean concentrations for 2011, these will be prepared using Scotland-specific data.

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Data

Data Selector

Trends

Emissions to air (SPRI)

Mapping

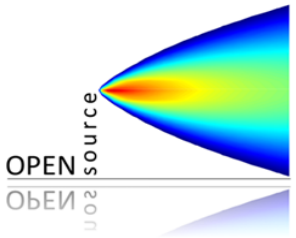
Openair
- Data definitions
- Summary plot
- Smooth trend
- TheilSen
- Time plot
- Trend level
- Polar plot
- Wind/pollution rose
- Polar annulus
- Scatter plot
- Polar frequency
- Calendar plot

2008 TEOM PM10 data with VCM applied

Verification and ratification process

Openair

Openair provides free, open-source and innovative tools to analyse, interpret and understand air pollution data using R; a free and open-source programming language designed for the analysis of data. The Openair tools available on this website can be used to readily perform complex and innovative analysis of current and archived air pollutant data from the AURN, allowing powerful data visualisation and interrogation capabilities for this data for the first time. This website makes it straightforward to download these graphical outputs from Openair in document ready formats.



The Openair package was primarily developed for the analysis of air pollution datasets with the ability to handle high volumes of data; the AURN, with its long data record lends itself to this. A further strength of the Openair tools is that they also allow data to be conditioned by one or more variables. For example, plots can be produced that show the inter-relationships between air pollutants and meteorological parameters, or temporal trends which vary over different time periods such as hour of day, day of week, month of year, and so on, that would otherwise not be apparent.

The Openair website contains a full description of all functions as well as downloads and guidance to help users apply the tools to their own data. UK-AIR provides simplified web access to a customised selection of the Openair tools, updated to include recent developments in Openair including tools that require meteorological data in order to run. To implement tools requiring meteorological data, modelled wind speed and wind direction data generated for the UK air quality forecast has been made available along with the measured air pollutant data.

The online tools make analysis and review of automatic data from the AURN using Openair possible without the need to install and maintain both R and Openair locally. For users that do desire full control over their analysis and output quality/format, we recommend installing R and Openair locally and obtaining data as Rdata objects from this website. In this way, the user can select and preview the desired data using the online tools prior to downloading it for further analysis in the R environment. Alternatively, data can be directly imported from this website very quickly using Openair's built-in importSAQN function as described in the Openair guidance document.

Please Note: The modelled weather data provided on the UK-AIR website for use with the Openair tools have been created under the Defra & Devolved Administrations UK air quality forecasting contract. The model data are updated daily.

A 10 km x 10 km grid resolution is used for modelling UK meteorological conditions for air quality forecasting. This means that the data are representative of regional synoptic conditions at the location of each UK air quality monitoring site, but do not account for any details of the local site environment. The data should therefore be used with caution in any local data analysis or modelling studies. However it does provide an alternative to measured meteorological data that is often located a large distance from the AQ monitoring site.

Any use of these data is at the users own risk and should be made in accordance with the terms and conditions of use of this website.

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- Wind/pollution rose
- Polar annulus
- Scatter plot
- Polar frequency
- Calendar plot

2008 TEOM PM10 data with VCM applied

Verification and ratification process

Time Plot

Choose your options below and as you select each one, the other options will update themselves. If help text is available for each input, click the "help" link on the side.

Learn about the Time Plot tool and its usage

Reset Search Options

Site Name

Aberdeen Anderson Dr
Aberdeen Errol Place
Aberdeen King Street
Aberdeen Market St

Help

Variables

You can select a maximum of 10 variables

Ozone
Nitric oxide
Nitrogen dioxide
Nitrogen oxides as nitrogen dioxide

Help

Dates

Specific Dates
Specific Years

Help

Date period available:
01/08/2003 and 17/12/2013

Start:
01 (day) 08 (month) 2003 (year)
End:
17 (day) 08 (month) 2013 (year)

Averaging Time: Default — Help

Colours: Default — Help

Stack by Year — Help

Normalise — Help

Click the submit button below to create the output.

Create Openair Plot

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Data Archive

Openair - data analysis tool

- Data definitions
- Summarise Tool
- Smooth Trend Tool
- Time Variation Tool
- Trend Hour Weekday Plots Tool
- Trend Decomposition Plots Tool
- MannKendall
- Time Plot
- Trend Level Hour

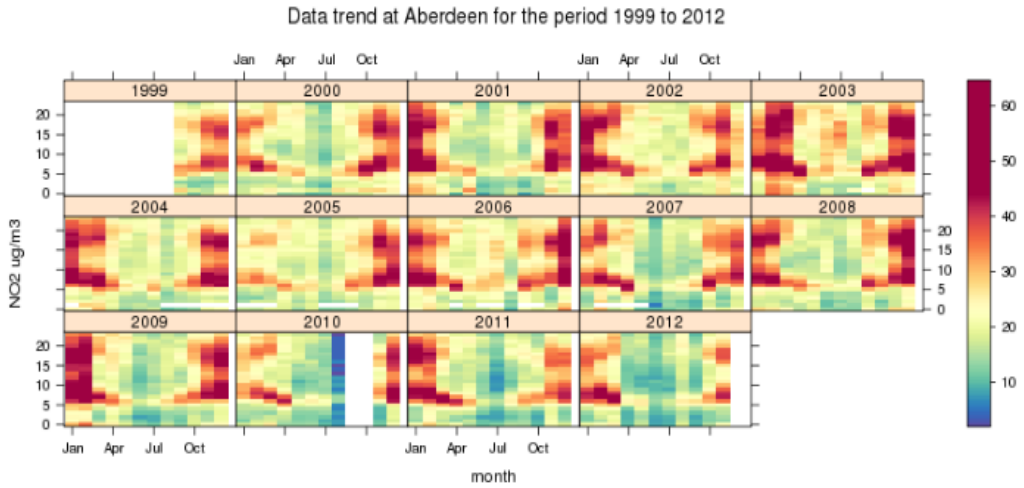
Openair

Your Openair Plot

Your 'Trend Level Hour' Openair output has been generated and is shown below.

« Return to search options

Download the data used for this chart as a CSV file
Download R data object for this chart
Download R command line for this chart
Download chart (Right Click / Save As...)
Print this chart



Local Air Quality Management and Smoke Control Areas

- More Scottish focus to LAQM with specific Scottish data and tools hosted on the Air Quality in Scotland website.
- Improved look and feel to the AQMAs web page.
- We will continue to update the AQMAs as information comes though – link into the availability of GIS outlines of AQMAs in the future? We have improved functionality to match Defra summary and filtering by pollutant and revoked aqmas.
- Smoke Control Areas. Defra Pilot study with ESRI & R-AEA to digitise and upload SCA outlines. Could be added to the website in future?
- Would provide much better accuracy and functionality for SCAs outlines if they were GIS based.

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LAQM
AQMA areas
Smoke Control areas
LAQM tools
Technical guidance
LSO Manual

Local Air Quality Management

Air Quality Management Areas

Since the Local Air Quality Management (LAQM) review and assessment process was introduced, local authorities across Scotland have been required to review and assess the air quality within their geographical areas. The process is designed to identify any exceedances of the UK Air Quality Strategy Objectives and to enable any local authority that identifies such an area to develop and implement a plan with stakeholder to improve air quality within the area.

Under section 83(1) of the Environment Act 1995, Local Authorities have a duty to designate any relevant areas where the air quality objectives are not (or are unlikely to be) being met as Air Quality Management Areas (AQMAs). AQMAs must be designated officially by means of an 'order'. The extent of the AQMA may be limited to the area of exceedance or encompass a larger area. Following the declaration of an AQMA, the local authority is required to develop and implement a plan (Air Quality Action Plan) to improve air quality in that area.

Use the AQMA page to view which local authorities have declared AQMAs and the details of these.

Smoke Control Areas

Use the Smoke Control Area pages to discover which local authorities have declared Smoke Control Areas.

Full details about exempt applicances for the UK can be found on the Defra UK Smoke Control Areas website.

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» Latest news from Air Quality in Scotland

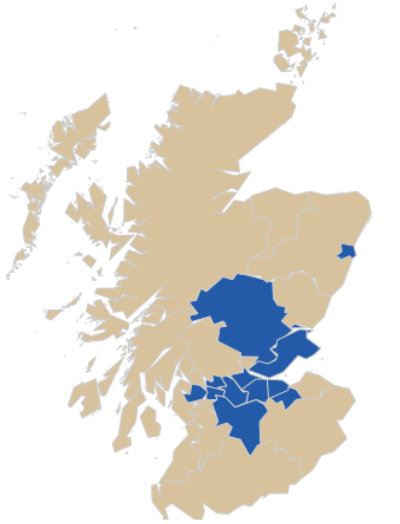
Air Quality Management Areas

The following table summaries the local authorities across Scotland that have declared active AQMAs. Select a local authority to view more information and contact details. Use the dropdown to select a different local authority, which may contain details of revoked AQMAs in addition to those that are active.

Local authority	AQMAs
Aberdeen City Council	3
Dundee City Council	1
East Dunbartonshire Council	2
Edinburgh City Council	5
Falkirk Council	5
Fife Council	2
Glasgow City Council	3
Midlothian Council	1
North Lanarkshire Council	6
Perth & Kinross Council	1
Renfrewshire Council	1
South Lanarkshire Council	1
West Lothian Council	2

Select local authority

Select...



AQMAs currently declared | No current AQMAs

Map filters:

- (•) All current AQMAs
- ( ) Revoked AQMAs
- ( ) Only AQMAs for PM_{10}
- ( ) Only AQMAs for NO_2
- ( ) Only AQMAs for SO_2

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LAQM
- AQMA areas
- Smoke Control areas
- LAQM tools
- Technical guidance
- LSO Manual

Air Quality Management Areas

Aberdeen City Council

3 current AQMAs declared
Local authority contacts: Email, Website

Aberdeen City Council City Centre AQMA

View Map of AQMA

Declared for: Nitrogen Dioxide (NO_2), Particulate Matter < 10 µm

Description: Market St, Union St, King St (between Castle St and Roslin Terrace), Virginia St, Commerce St, Guild St, Bridge Street, Holdburn Street (between Great Southern Road and Union Street), Victoria Road, Torry (between Queen Elizabeth II Bridge and Crombie Road) and West North Street (King Street to 100m north of junction with Littlejohn Street).

Aberdeen City Council Anderson Drive AQMA

View Map of AQMA

Declared for: No information about pollutants available

Description: All of Anderson Drive from the Bridge of Dee, including Haudigan Roundabout. Part of Great Northern Road, from 815 Great Northern Road to Auchmill Road. Part of Auchmill Road, from Great Northern Road to the junction with Howes Road.

Aberdeen Wellington Road AQMA

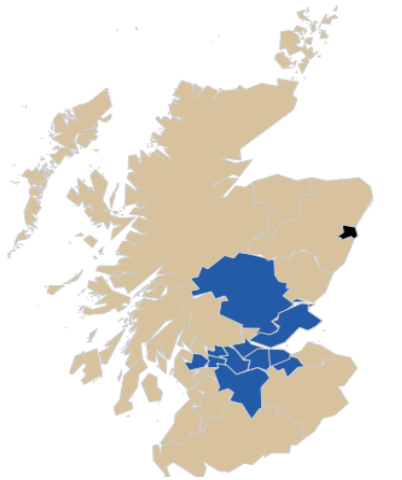
View Map of AQMA

Declared for: No information about pollutants available

Description: Wellington Road Air quality Management area for Nitrogen Dioxide (NO_2) and Particulates(PM_{10}).

Select local authority

Aberdeen City Council



AQMAs currently declared | No current AQMAs

Map filters:

- (•) All current AQMAs
- ( ) Revoked AQMAs
- ( ) Only AQMAs for PM_{10}
- ( ) Only AQMAs for NO_2
- ( ) Only AQMAs for SO_2

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Stay Informed

- Mobile Website.
- Know and Respond Alert Services.
- Email Alerts
- Twitter feed
- Smartphone Apps
- SAQD Youtube training and advice channel.
- RSS Feeds.

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Stay informed

Email bulletin registration

Apps for iPhone and Android

Get free Know & Respond alerts

Stay informed

There are lots of ways you can stay informed about air quality in Scotland:

Main website - works on tablets and phones

The Air Quality in Scotland has been designed to work on different devices to allow you to easily find out information. If you use on a tablet or phone, the website will automatically adapt itself.

Know & Respond

Know & Respond is a free service providing you alerts when pollution are forecast to levels increase. You can choose to recieve alerts by SMS, voicemail or email. Know & Respond alerts are also available via the app.

Read more about Know & Respond »

Email alerts

Sign up to our email bulletins and receive summaries directly to your inbox. You can choose how frequently you receive them and what type of summary you're interested in.

Read more about our email bulletin service »

Twitter

Follow @airqualityscotland for the latest pollution information for Scotland. We'll also tweet news and reports when they're added to the website. Feel free to RT and let people know!

@airqualityscotland »

Apps

Download our free air quality app for iPhone or Android phones! The apps give you the latest air quality levels for each site, forecasts for the day ahead, and you can receive alerts when air pollution levels increase.

Read more about our apps and how to get them »

YouTube

Our YouTube account will have videos added over time to reflect the different nature of air quality in Scotland.

Visit our YouTube account now »

RSS

There are two RSS feeds that you can use from the Air Quality in Scotland website. Use this with your RSS reader to automatically recieve updates about air pollution in Scotland.

Latest site levels »
Latest regional summaries »

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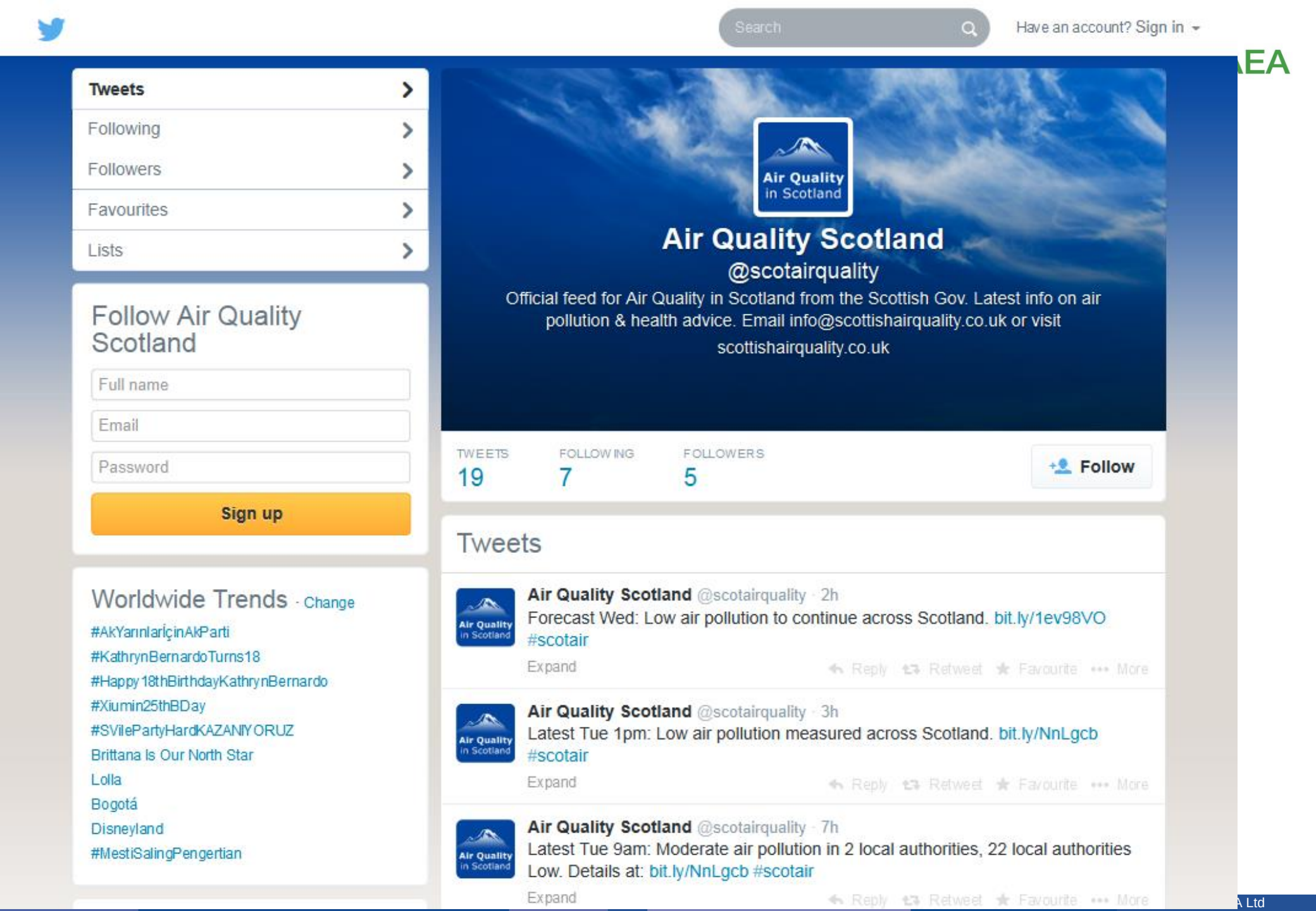
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FOLLOWING 7
FOLLOWERS 5
Follow
Tweets
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Forecast Wed: Low air pollution to continue across Scotland. bit.ly/1ev98VO #scotair
Expand
Reply Retweet Favourite More
Air Quality Scotland @scotairquality · 3h
Latest Tue 1pm: Low air pollution measured across Scotland. bit.ly/NnLgcb #scotair
Expand
Reply Retweet Favourite More
Air Quality Scotland @scotairquality · 7h
Latest Tue 9am: Moderate air pollution in 2 local authorities, 22 local authorities Low. Details at: bit.ly/NnLgcb #scotair
Expand
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Education and Learning

- Continue with the “Air Pollution Detectives” Resource for Primary School aged Children
- We’ve created a new “Clear the Air resource for secondary school children, aimed more at participating and sharing as well as understanding and learning. (more later!)

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Education

Air Pollution Detectives

Clear The Air

Education

Air Quality in Scotland has two seperate educational websites aimed at children and secondary school pupils to help you learn about air pollution! If you have any questions or suggestions please contact us.

Air Pollution Detectives

Join Maggie and Rabbie, the air pollution detectives, to find out more about air pollution!

Aimed at primary school children, this interactive resource features information on pollutants, what actions everyone can take, and lots of links to other websites to explore.

Clear The Air

Clear The Air is an educational resource for Secondary School pupils!

Find out about air pollution, use the emissions calculator, or sign up to the Citizen Science project to get involved in understanding how air pollution is measured in your area.

Many Thanks for Your Time.

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Questions & Discussion

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SAQD Stakeholder Meeting 2013
- Smartphone App and Twitter Development

18th December 2013

Paul Willis – Air Quality Business Manager

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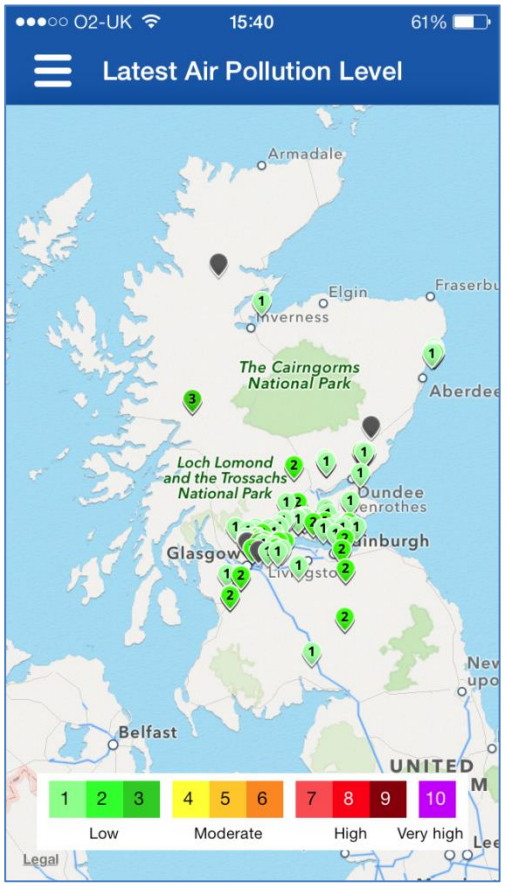
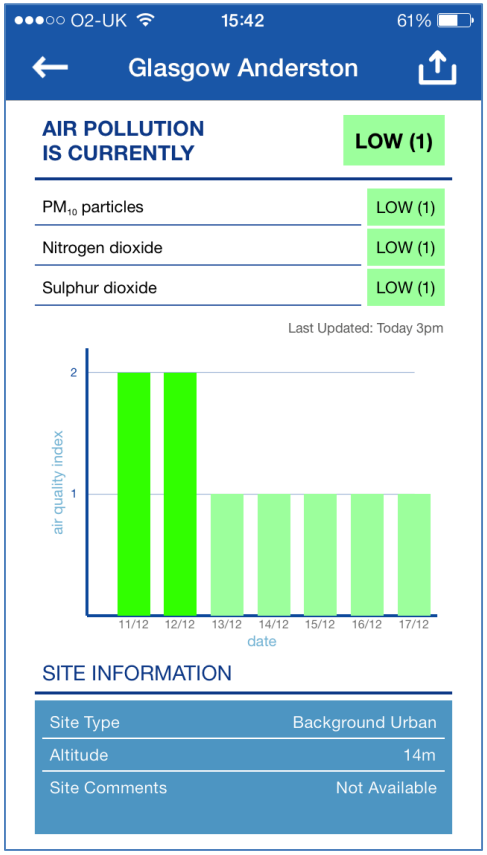
Air Quality in Scotland App





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Apps for iPhone and Android are in Development

- Continuity in branding from the AQ in Scotland & K&R website.
- Not complete yet, a full preview will be released in the new year.
- Optimised for iPhones, Android Phones, iPads and other tablets.
- Functionality available at individual site level as well as regional forecasts and summaries.
- The user can configure their preferred settings for receiving Know and Respond Alerts.

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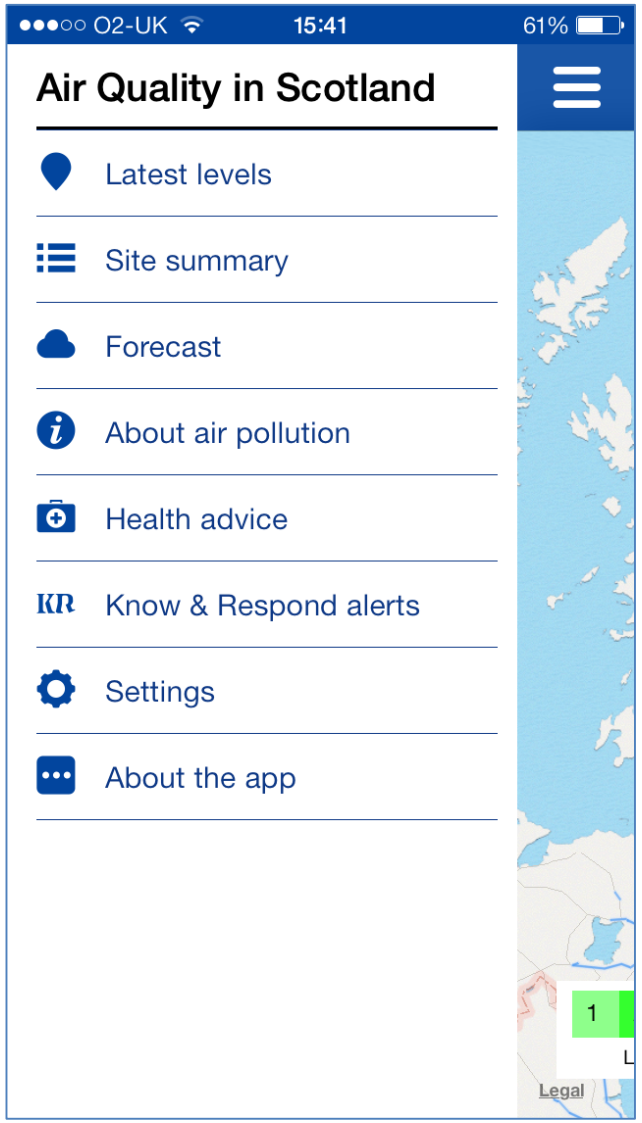
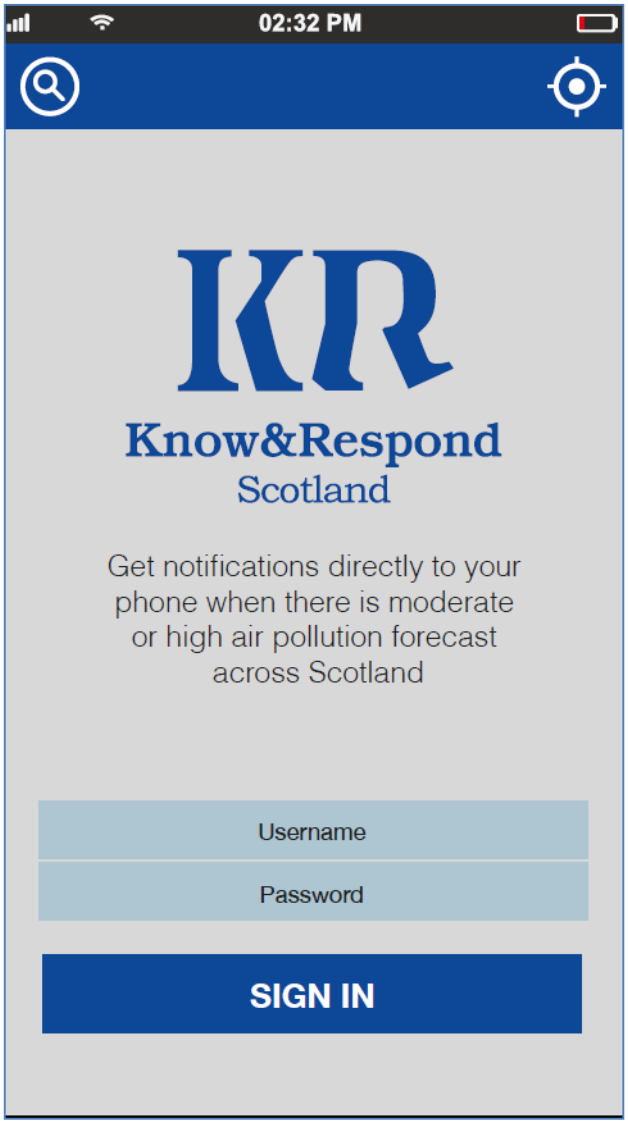
Forecasts and Know & Respond Alerts will be Available





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Twitter Development

- @airqualityscotland.
- Proposed to be a mixture of automated and manual tweets.
- Automated tweets similar to @DefraUKAir?
- Requires manual validation of isolated High/Very High incidents to avoid publishing possibly faulty data?
- Proactive tweeting of Scottish AQ news, reports and events.
- Tweet relevant pictures, graphs, maps of interest.
- Not interactive though, no response to users who tweet us?

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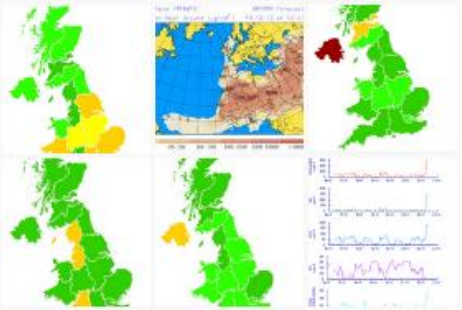
Tweets
Following
Followers
Favorites
Lists

Tweet to Defra Air Quality

@DefraUKAir

Photos and videos



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Followed by London Air and others
Follow

Invisible Dust @Invisible_Dust
Followed by London Air and others
Follow

Clean Air Society @CleanAirSociety
Follow

Popular accounts · Find friends

Trends · Change

Defra Air Quality

@DefraUKAir

Official, automated feed for UK Air Quality from Defra. Latest info on Pollution, Forecasts & Health Advice. For queries email aqinfo@ricardo-aea.com or visit: uk-air.defra.gov.uk

1,614 TWEETS | 111 FOLLOWING | 756 FOLLOWERS

Following

Followed by London Air, airTEXT, CityAir and 6 others.

Tweets

Defra Air Quality @DefraUKAir 1h
Latest Tue 1pm: Moderate air pollution in 2 regions, 14 regions Low. Details at: bit.ly/HN9VOK #ukair
Expand Reply Retweet Favorite More

Defra Air Quality @DefraUKAir 2h
Forecast Wed: Low air pollution across the UK bit.ly/HbGVCK #ukair
Expand Reply Retweet Favorite More

Defra Air Quality @DefraUKAir 5h
Latest Tue 9am: Moderate pollution measured in North East, all other regions Low. bit.ly/HN9VOK #ukair
Expand Reply Retweet Favorite More

Defra Air Quality @DefraUKAir 21h
Latest Mon 5pm: Moderate pollution measured in South Wales, all other regions Low. bit.ly/HN9VOK #ukair
Expand Reply Retweet Favorite More

Defra Air Quality @DefraUKAir 16 Dec