



SAQD Developments 2013 - 2016

Paul Willis

18th March 2013

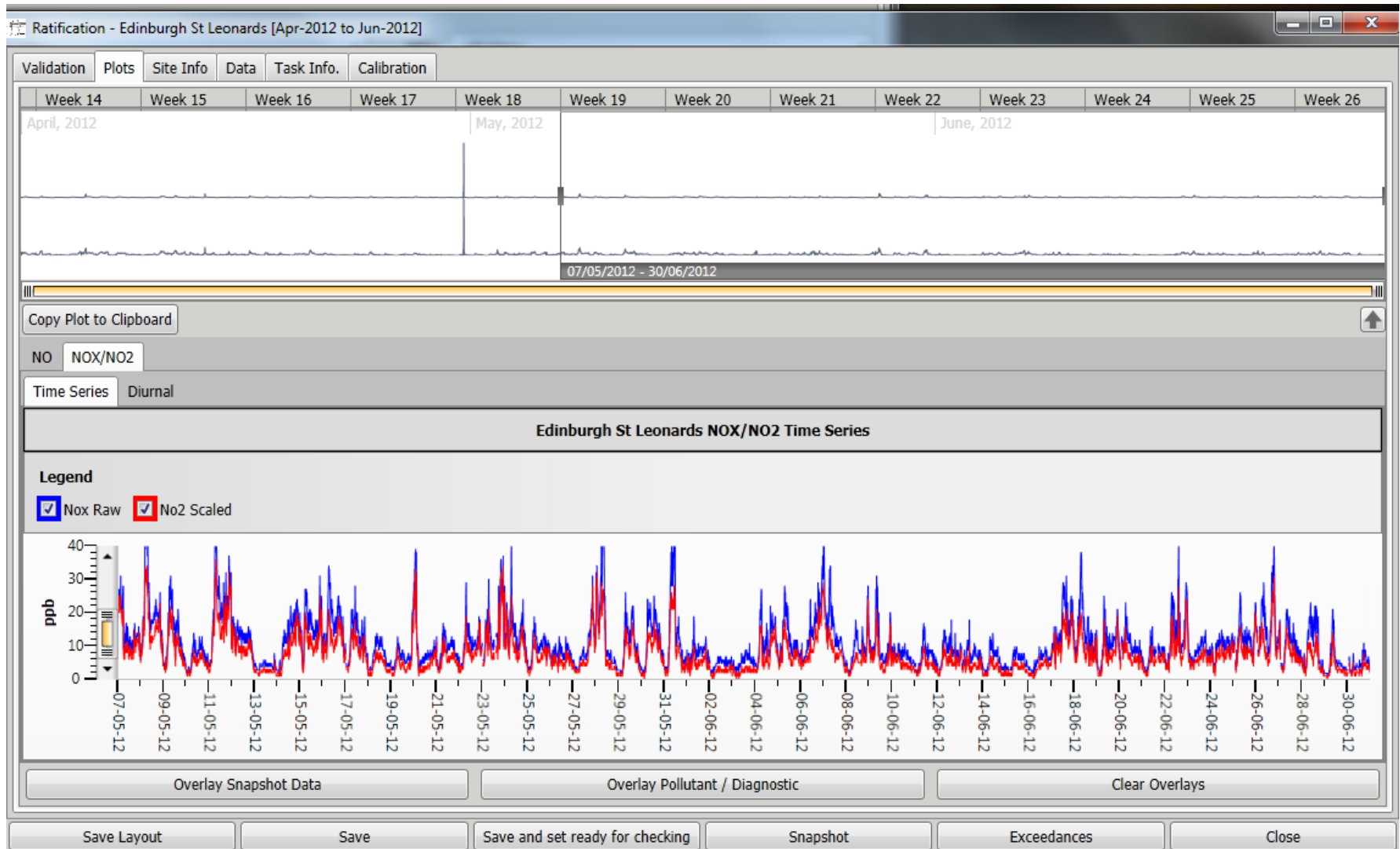
Introduction

- The SAQD will continue to develop in the next three years.
- Some enhancements are included in the core of the new contract.
- Many ideas have been put forward for developments which could be funded in the future.
- Your thoughts?

Core Developments Include

- AURN equivalent quarterly data ratification.
- SAQD expansion to cover all pollutants and measurement information for Air Quality stations in Scotland.
- Improved software for upload of NO₂ diffusion tube data from Local Authorities.
- Website re-design.
- Mobile website enhancements.
- Improvements to LAQM and Smoke Control zones visualisation.
- Training videos.

Quarterly Data Ratification



Use the interactive map below to explore different UK monitoring networks. The map shows the current sites within the network selected. Information about the selected network is shown below the map.

Filter by network

- Automatic Urban and Rural
Markers show latest pollution index
- Automatic Hydrocarbon
- Non-Automatic Hydrocarbon
- PAH
- TOMPs
- Black Carbon
- UKEAP (Acid Deposition)
View Ammonia, Acid Gases and Aerosols network ([external link](#))
- Urban Heavy Metals
- Rural Heavy Metals
- Show UK Regions Overlay

Map | Satellite

United Kingdom

Map data ©2013 GeoBasis-DE/BKG (©2009), Google - [Terms of Use](#)

Guide to map layer filters box: Drag the map filters box around the map | Expand map to fullscreen | Hide filters

Extended SAQD Pollutant List

Filter by environment type for UKEAP (Acid Deposition) Network

Show or hide different markers on the map above for the selected network below.

The number in brackets indicates the number of sites with this classification.

- Rural Background (39)

NO₂ Diffusion Tube Data

Home

Monitoring Data

Monitoring Site

Users

Log off

The Web-Based Data Entry System allows Local Authorities to enter diffusion tube monitoring results, and update site details and contact information.

Select the **Monitoring Data** tab, to:

- Enter new data by selecting the year and period
- View existing data previously entered, and
- Amend existing data previously entered.

Select the **Monitoring Site** tab to manage your site details. This includes the following options:

- Add a new site
- View and amend existing sites

If any sites have more than 1 tube:

- Include number of tubes for new sites
- View and amend number of tubes at each site

Your user details can be changed and managed by clicking on the **Users** tab. Apart from updating your details, you can also change your password to something easier to remember.

For full system guidance [click here](#).

Select year here to change year:

2012

Monitoring calendar for year 2012

Year	Period	Start Date	End Date	Duration (weeks)
2012	1	04/01/2012	01/02/2012	4
2012	2	01/02/2012	29/02/2012	4
2012	3	29/02/2012	28/03/2012	4
2012	4	28/03/2012	25/04/2012	4
2012	5	25/04/2012	30/05/2012	5
2012	6	30/05/2012	27/06/2012	4
2012	7	27/06/2012	01/08/2012	5
2012	8	01/08/2012	29/08/2012	4
2012	9	29/08/2012	26/09/2012	4
2012	10	26/09/2012	31/10/2012	5
2012	11	31/10/2012	28/11/2012	4
2012	12	28/11/2012	02/01/2013	5

This website is prepared and hosted by Ricardo-AEA

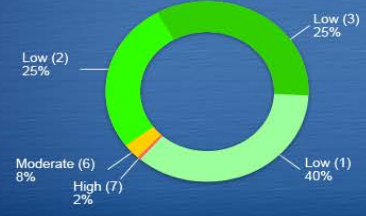
© 2012

[Ricardo-AEA](#)

[Cookie Policy](#)

Air pollution levels updated every hour

Percentage of monitoring sites in each pollution band. Values are based on pollution levels at a total of 90 sites. They are measured for the latest hour and are provisional values.



Air Pollution Forecast

Last updated at 18:00:00 on 28/11/2012 | This forecast is valid until 15:00 on 29/11/2012

- Highlands
- North East Scotland
- Central Scotland
- Scottish Borders

In towns and cities near busier roads
 Currently: Low (2)
 Forecast: Low (3)

Eisewhere in towns and cities
 Currently: Low (2)
 Forecast: Low (3)

In rural areas
 Currently: Low (2)
 Forecast: Low (3)

What does this mean?

The following agglomerations are in the Central Scotland area:
[Edinburgh Urban Area](#)
[Glasgow Urban Area](#)

[Air Pollution Forecasting in the UK](#)

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

AIR QUALITY PAGES FOR KIDS



LATEST NEWS

- Consultation on updated UK National Implementation Plan for Persistent Organic Pollutants
 27/11/2012 **Oganic Pollutants**
- Second story to do with air quality and its effects on the elderly and can be three lines long
 27/11/2012 **Age groups**
- Third story third story third story third story third story and can be three lines long
 27/11/2012 **Transport**

MOBILE PAGES

Find out how to view the pollution levels in Scotland on your mobile

Website Redesign



Updates on air pollution levels every hour

last updated 12:00am

Percentage of monitoring sites in each pollution band. Values are based on pollution levels at a total of 90 sites.



Air Pollution

Last updated at 18:00 on 28/11/2012 | This forecast is valid until 15:00 on 29/11/2012

HIGHLANDS N/E SCOTLAND CENTRAL SCOTLAND SCOTTISH BORDERS

In towns and cities near busier roads

Currently: Low (2)
Forecast: Low (3)

Elsewhere in towns and cities

Currently: Low (2)
Forecast: Low (3)

In rural areas

Currently: Low (2)
Forecast: Low (3)



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



The following agglomerations are in the Central Scotland area:

Edinburgh Urban Area
Glasgow Urban Area

[Air Pollution Forecasting in the UK](#)



Latest news

- Consultation on updated UK National Implementation Plan for Persistent Organic Pollutants
27|11|2012 Organic Pollutants
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- Third story third story third story third story third story and can be three lines long
27|11|2012 Transport



Follow us on Twitter

Website Redesign Alternative

Embedded Training Videos



Working together for a world without waste

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HOME | ABOUT WRAP | WHO WE WORK WITH | WHY IT MATTERS | MEDIA CENTRE | Around the UK

Designing out Waste: Video Tutorials

The following video tutorials provide step-by-step instructions on how to use the Designing out Waste Tool for Buildings and Civil Engineering.

The Designing out Waste module series has been approved by RIAS. Users who have watched the module series (1, 2 and 3) will be able to claim a total of 1.25 hours towards their annual CPD record.





DoW module 1 - Introduction.



DoW module 2 - Tools and guidance.



DoW module 3 - Case studies.



DoW Tool for Buildings #1 -



DoW Tool for Buildings #2 - Waste



DoW Tool for Buildings #3 -

Related pages

- [Designing out Waste](#)
- [Designing out Waste Tool for Buildings](#)
- [Designing out Waste Tool for Civil Engineering](#)
- [Site Waste Management Plan Tools: Video Tutorials](#)
- [Net Waste Tool: Video Tutorials](#)
- [Waste to Landfill Reporting Portal: Video Tutorials](#)

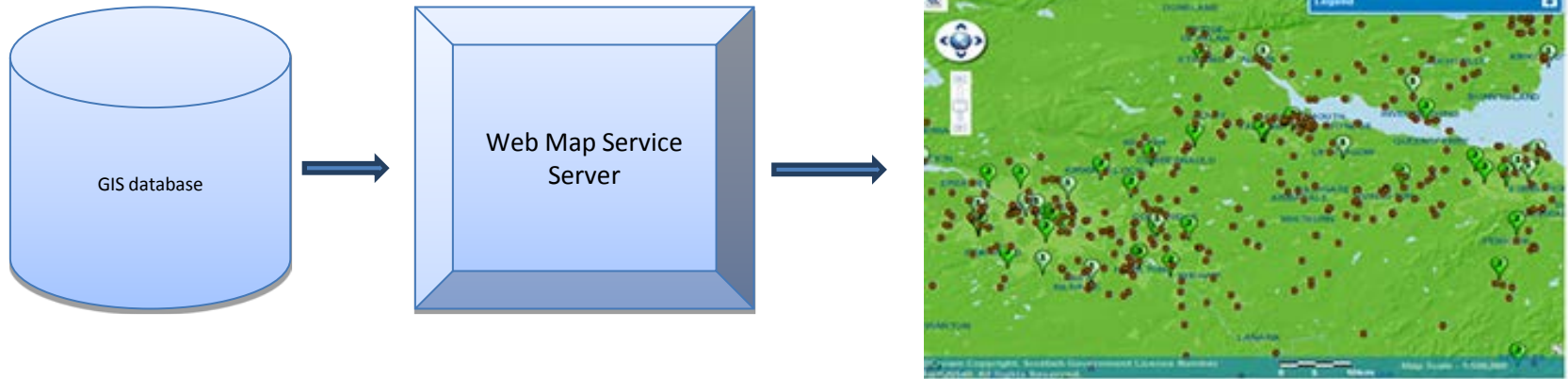
Related documents

-  [Designing out Waste Tool for Buildings workbook \(917.55 KB\)](#)
-  [Designing out Waste Tool for Civil Engineering workbook \(1.4 MB\)](#)



Optional Developments

- Data API and INSPIRE compliant SAQD.
- QR Codes on Monitoring Sites.
- Enhanced Mapping of Air Quality across Scotland.
- “Back-casting” using air quality modelling to calculate an Air Quality Indicator.
- Website Compliance Dashboard.
- Enhanced graphing.

INSPIRE Services



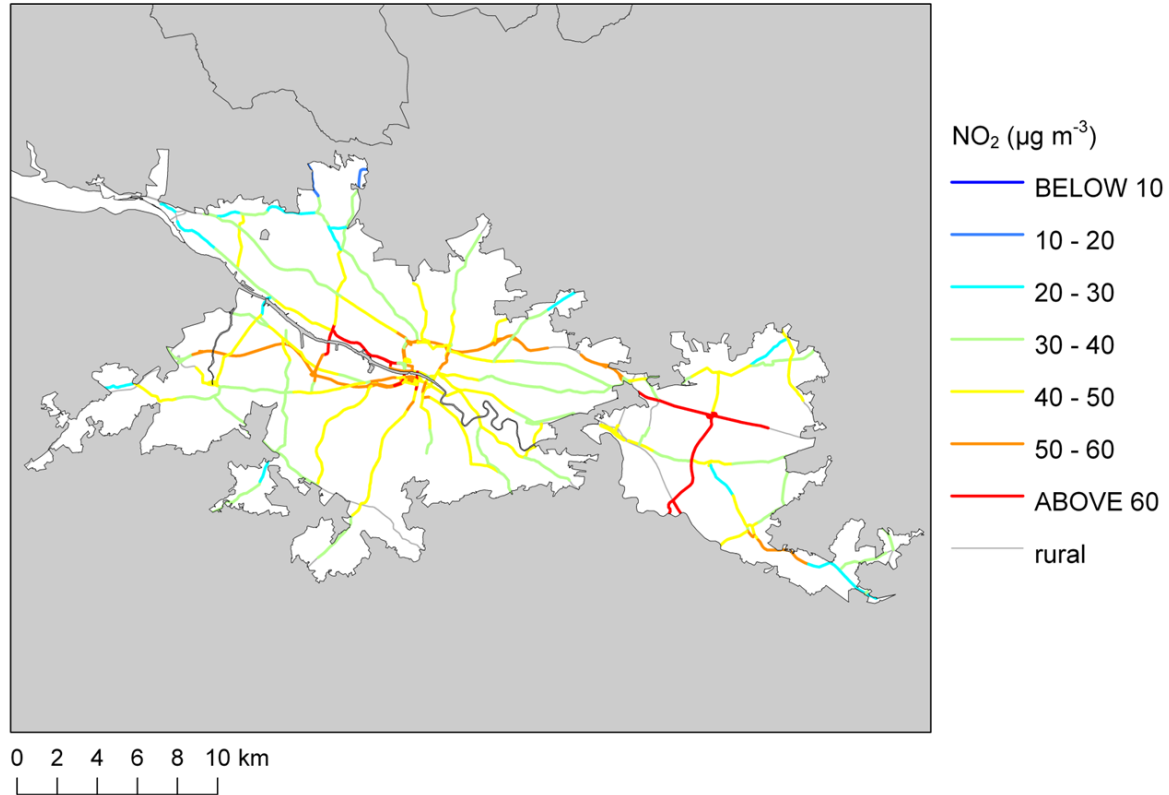
Stay updated...

-  Follow UK-AIR on Twitter
-  RSS Air Pollution Forecast
-  RSS Latest measurements by station
-  RSS Latest measurements by zone



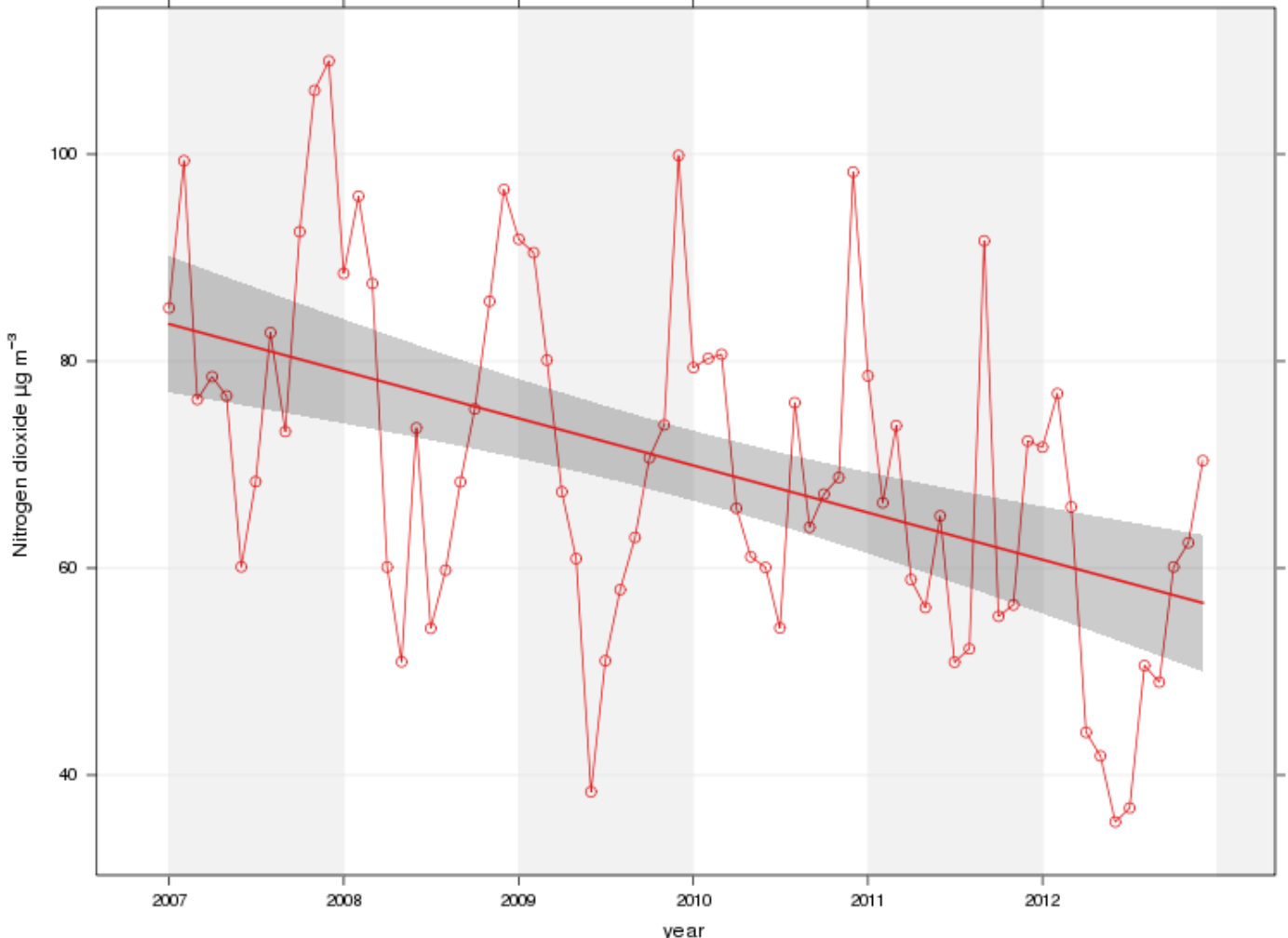
- The above code when scanned leads directly to the data for Errol Place in Aberdeen.
- These codes could be physically placed on monitoring sites, or around a city, where the public can scan the code using a smart phone with a QR Reader to get data from the nearest local Air Quality stations.

Enhanced Mapping



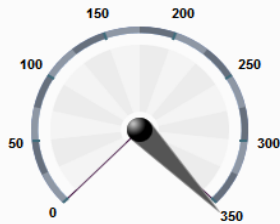
Air Quality Indicators

Trend for Edinburgh St John's Road



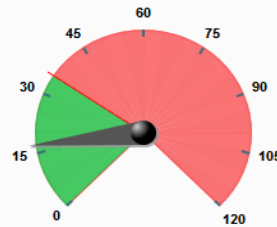
Compliance Dashboard

Dashboard Overview



Day 353 of 366

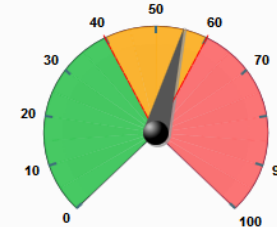
Progress through the current year



17 exceedances

PM₁₀ Exceedances to date
(Rosia Road)

35 exceedances allowed



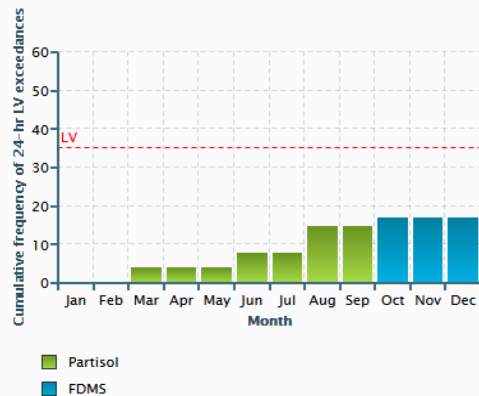
55.3 $\mu\text{g}\text{m}^{-3}$

Average NO₂ concentration to date
(Withams Road)

40 $\mu\text{g}\text{m}^{-3}$ Limit Value (60 $\mu\text{g}\text{m}^{-3}$ Limit Value +
Margin of Tolerance until end 2014)

PM₁₀

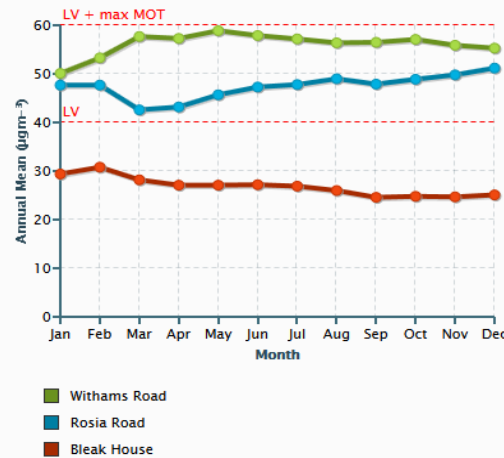
Progress through year (24 hour exceedances)



Note: Partisol data to **October**, FDMS data to current date

NO₂

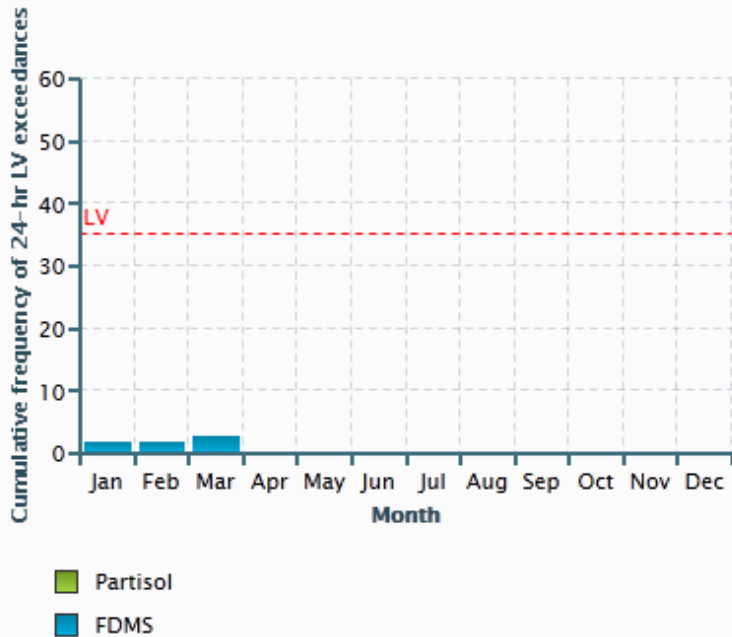
Progress through year (annual mean)



Improved Graphing

PM₁₀

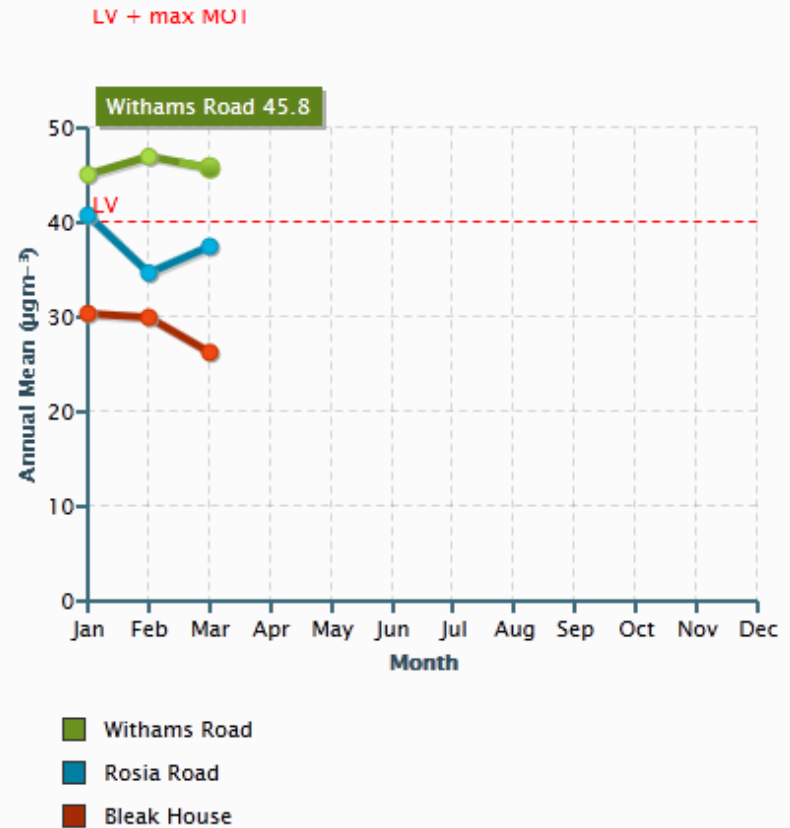
Progress through year (24 hour exceedances)



Note: Partisol data to **January**, FDMS data to current date

NO₂

Progress through year (annual mean)



Optional Developments

- SMS alert service for Scottish Government and Local Authorities to report Moderate or higher measured concentrations.
- New Children's section for older age groups.
- Youtube account .
- Apps for iPhone/Android.
- Twitter.
- Facebook.
- LinkedIn Group.

Educational Developments

Working closely with stakeholders and advisors to build on “Air Pollution Detectives”

The screenshot shows the BBC Learning Schools website. At the top is a navigation bar with the BBC logo, a 'Sign in' button, and links for News, Sport, Weather, iPlayer, TV, Radio, and More... A search bar is located on the right. Below the navigation bar is a header for 'Learning Schools BETA' with a background image of colored pencils. The main content area is divided into several sections:

- St Patrick's Day:** A large image of a parade with a yellow flag that says 'ST PATRICKS DAY'. To the right, text describes the festival: 'St Patrick's Day is a cultural and religious festival celebrated every year on 17 March. It commemorates Saint Patrick, the patron saint of Ireland. St Patrick is traditionally associated with the Shamrock plant, which he used to explain the concept of the Trinity.'
- Find content by subjects or sites:** A sidebar menu with 'Subjects | Sites' and tabs for 'Primary' and 'Secondary'. Under 'Primary', subjects listed are Art, Citizenship, Geography, History, Languages, and Literacy. Under 'Secondary', subjects listed are Music, Mathematics, PSHE, Science, and Other subjects.
- Bitesize:** A section with a cartoon dinosaur icon, listing levels: 'KS1 - KS2 - KS3 - GCSE' and 'TGAU - Scottish 1st Level - Standard - Highers'.
- Class Clips:** A section with a landscape image and text: 'More than 9,000 video clips from BBC programmes on Learning Zone Class Clips ready to play in your classroom.' A bullet point highlights a 'Featured' clip about geological factors in Northern Ireland.
- Choose one:** A vertical list of four options: 'School students' (Games, video clips and activities for homework and revision), 'Teachers' (Resources to use in the classroom), 'Parents' (Help your children at home and at school), and 'Learning' (Online learning, support and advice).
- Educational shows for children on BBC iPlayer:** A section with text: 'New: From Horrible Histories to Newsround, watch or download your favourite programmes. Most recent: VIP PEOPLE: Radio' accompanied by a small image of a woman.

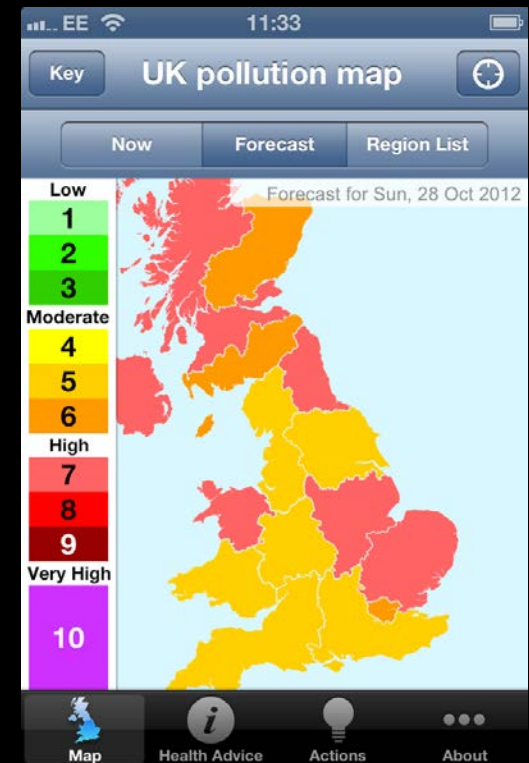
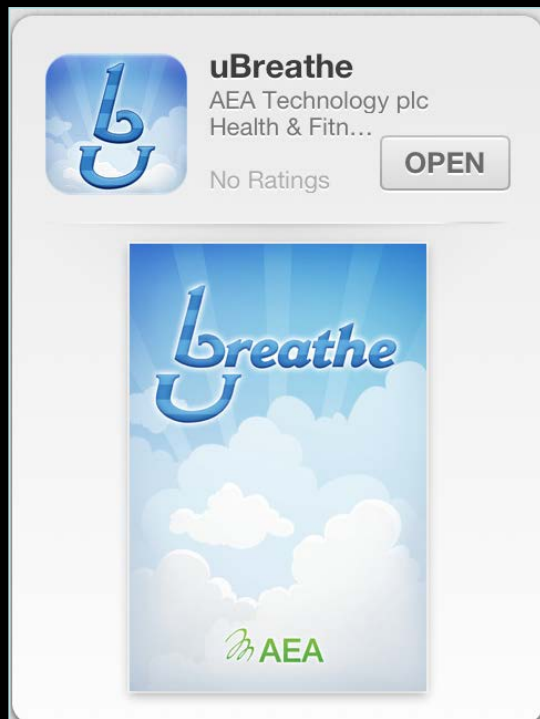
At the bottom left, there is a search bar with the text 'Search bbc.co.uk/schools' and a prompt 'Enter a topic/key word'.

For Older Groups:

- Various options might include webpages that provide:
- Information on air quality, emissions and transport with associated teachers notes
- Downloadable survey sheets to determine baseline school travel habits and behaviour
- Carbon and Air Quality footprint calculators to enable students to quantify their baseline and future contribution to local emissions from travel to/from activities.

uBreathe iPhone App

RICARDO-**AEA**



Social Media

facebook

Email or Phone

Keep me logged in

Password

Log in

[Forgotten your password?](#)



**Air Now
is on Facebook.**

To connect with Air Now, sign up for Facebook today.

Sign Up

Log in



Air Now

2,353 likes · 18 talking about this

Like



Government Organisation

The U.S. EPA, NOAA, NPS, tribal, state, and local agencies developed the AIRNow Web site to provide the public with easy access to national air quality information and real-time

About



Photos

2,353

Likes

Comment Policy

We encourage comm
We want to publish y
comments, but we e

Notes 1



Events

Highlights



Air Now shared a link.
12 March

Utah- GM Folks! It's and air quality action day, with a code yellow forecast for particle pollution levels in the Logan area today! Unusually sensitive people should consider reducing prolonged or

Likes



EPA Burn Wise
Government Organisation

Like



U.S. Environmental Protection Agency

Like



Defra Air Quality

@DefraUKAir

Official, automated air quality updates on UK Air Quality from Defra. Please email aqinfo@ricardo-aea.com with any queries, or visit the website. <http://uk-air.defra.gov.uk>

[Profile] Following

477 TWEETS

9 FOLLOWING

297 FOLLOWERS

Tweet to Defra Air Quality

@DefraUKAir

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Similar to Defra Air Quality

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Bio-Rad's Life Science Research Gro...
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- JCDH** @JCDH_AirQuality
Daily air quality forecasts for the Birm...
Follow
- Defra UK** @DefraGovUK
Official feed for Defra, UK Departmen...
Follow

Tweets

- Defra Air Quality** @DefraUKAir 1h
Forecast next 24hrs: Low air pollution is expected across the UK. bit.ly/HbGVCK #ukair
Expand
- Defra Air Quality** @DefraUKAir 4h
Nowcast Sun 10am: Low air pollution measured across all regions of the UK. bit.ly/HN9VOK #ukair
Expand
- Defra Air Quality** @DefraUKAir 22h
Forecast next 24hrs: Low air pollution everywhere tomorrow except Northern Ireland Moderate. bit.ly/HbGVCK #ukair
Expand
- Defra Air Quality** @DefraUKAir 22h
Nowcast Sat 4pm: Moderate air pollution in 2 regions, 14 regions Low. Details at: bit.ly/HN9VOK #ukair
Expand
- Defra Air Quality** @DefraUKAir 17 Nov
Nowcast Sat 10am: Moderate air pollution in 5 regions, 11 regions Low. Details at: bit.ly/HN9VOK #ukair
Expand
- Defra Air Quality** @DefraUKAir 16 Nov
Nowcast Fri 5pm: Moderate air pollution in 9 regions, 7 regions Low. Details at: bit.ly/HN9VOK #ukair
Expand
- Defra Air Quality** @DefraUKAir 16 Nov
Forecast next 24hrs: Pollution declining later. Low across all UK regions tomorrow, except London Moderate. bit.ly/HbGVCK #ukair
Expand

For Further Discussion

- Single and uniform internet based data logging technology across all SAQD sites.
- Interactive online publication of mapped data sets.
- Link to Airborne Hazard Emergency Response Service (AHER).
- Alternative routes to publication of SPRI data.
- Enhanced Air Quality Forecasts for 2014 Commonwealth Games.

GIS Interactive Maps

GIS Mapping Interactive Viewer

Select data type:

Select a layer to view:

Select a year:

Background

Nitrogen Dioxide annual mean

2010

Select Tool

Radius Tool

Draw Area

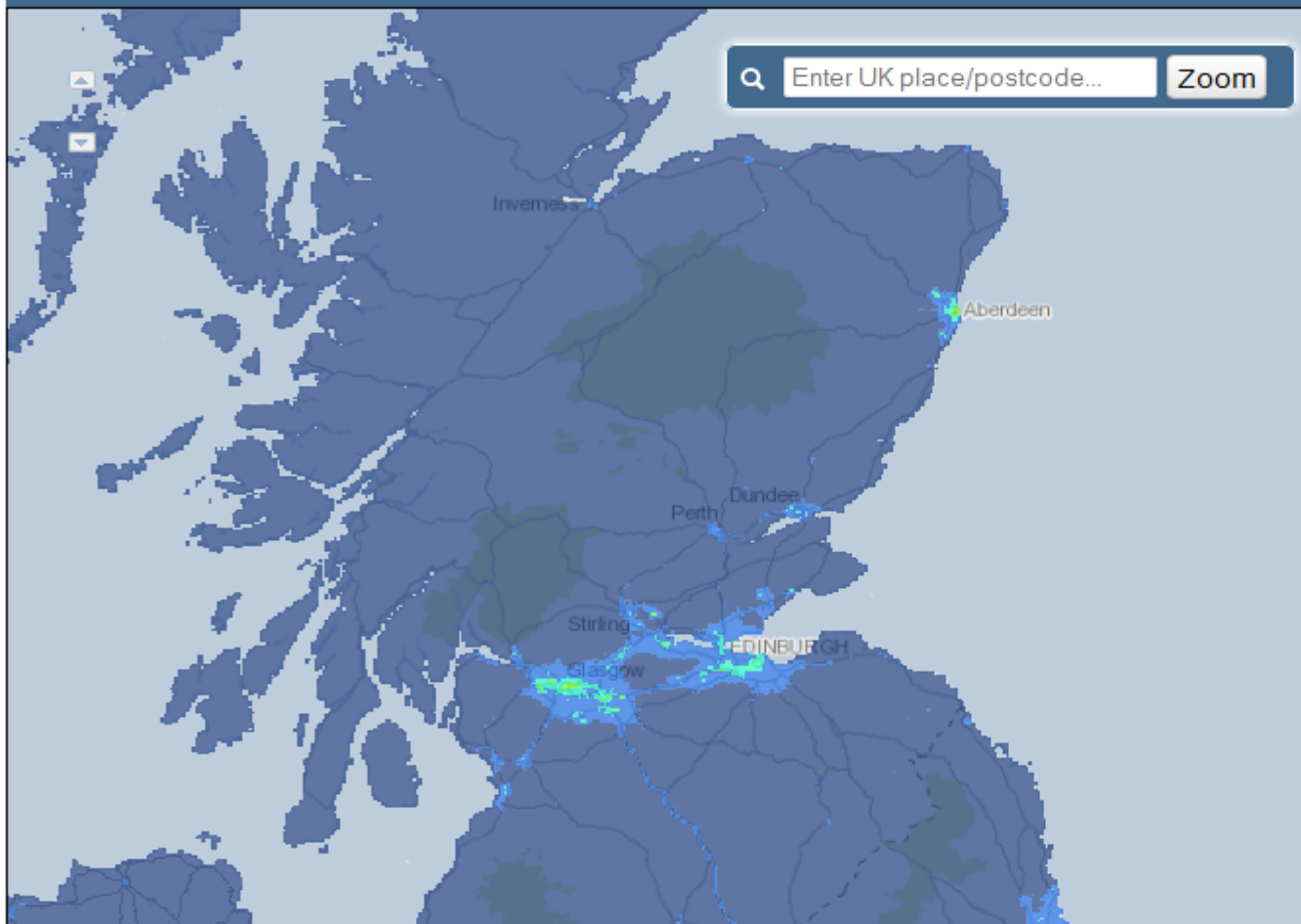
Polygon Search

Add Overlays

Add Networks

Clear Map

FAQs



Fullscreen map | Clear results

Draw Area, Nitrogen Dioxide annual mean
Background query created at 22:53

Selected area summary

MIN	6.71 $\mu\text{g m}^{-3}$
MAX	39.38 $\mu\text{g m}^{-3}$
MEAN	16.26 $\mu\text{g m}^{-3}$

» Create full dataset as CSV

Show area on map

Information about tools

Only the select tool is available while you have an overlay visible

Air Quality Forecasts

- Forecasting
- WRF Forecast Summary
- Today's Forecast - European Scale
- Today's Forecast - UK Scale
- Yesterday's Forecast - European Scale
- Yesterday's Forecast - UK Scale

Today's Forecast - European Scale

Use the tabs below to switch between different model outputs.

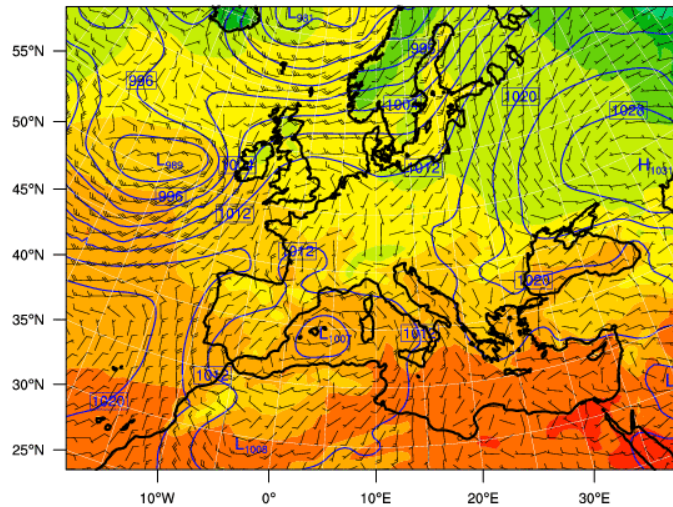
- Precipitation
- Cloud Cover
- Surface Conditions

Please Note: These weather data have been created under the Defra air quality forecasting contract, they have been evaluated in the context of air quality modelling and are not intended to be used for any other purpose. Any use of these data is at the users own risk and in accordance with the terms and conditions of use of this website.

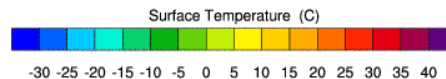
REAL-TIME WRF

Int: 2012-11-17_18:00:00
Valid: 2012-11-18_12:00:00

Surface Temperature (C)
Sea Level Pressure (hPa)
Winds (kts)



Sea Level Pressure Contours: 900 to 1100 by 4



Many Thanks for Listening.



Your
thoughts??

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