

09:15	Registration	
10:00	Welcome and Introduction	Andrew Taylor, Scottish Government
10:15	Air Quality in Scotland	David Hector, Ricardo Energy & Environment
10:45	How can we protect Scotland's most vulnerable lungs from air pollution?	Irene Johnstone, British Lung Foundation
11:15	Tea/Coffee Break	
11:35	Every Breath we take; the effects of Air Pollution Across the Life-course	Professor Stephen Holgate, University of Southampton Faculty of Medicine
12:05	Young Scots tackling air pollution	Dr Colin Gillespie, SEPA
12:30	Spotfire data analysis tools integration in the SAQD	Kieran Walesby, SEPA
12:50	Lunch	



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Ricardo
Energy & Environment

Air Quality in Scotland

Scottish Air Quality Database and Website Annual Seminar

David Hector - Ricardo Energy and Environment

24th January 2017

1. Scottish Air Quality Database and Website (SAQDW) 2017
2. SAQDW and CAFS
3. Functions within SAQDW and new additions
4. Air Pollution in Scotland
5. Interesting Air Quality analysis
6. QA/QC
7. Your SAQD
8. Questions

Scottish air Quality Database and Website

- Pilot study – 2006
- Project officially launched April 2007 – c.50 monitoring sites in the database
- January 2017 – 95 automatic sites
- New SAQDW contract Jul 2016 – Jun 2019
- Award winning AQ Website
- SEPA – New data analysis pages
- Website is important element in helping to Deliver Cleaner Air for Scotland



Air Quality in Scotland

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 95 monitoring sites
View a map of monitoring sites across Scotland »
Last updated at 10:00 Thursday 19th January 2017.

Focus on air quality in your postcode area
e.g. AB11 SEARCH »
or detect my location

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

Air Pollution Forecast
This forecast was last updated at 12pm on 18th January 2017

Today	Scotland air pollution forecast for Today, 19th January 2017
Tomorrow	Air pollution expected to be low for all areas of Scotland on Thursday
Outlook	View full forecast summary » Get alerts with Know & Respond »

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

The Team



Ellis Marshall-Padkin



Sam Copsey



Brian Stacey



Stephen Stratton



David Hector



Stuart Sneddon



Susannah Telfer



Stephen Gray



Paul Willis



Rebecca Rose



Ashleigh Norrie



John Stedman

Scottish Air Quality Database (SAQD) and CAFS

Transport:

A Scotland that reduces transport emissions by supporting the uptake of low and zero emission fuels and technologies, promoting a modal shift away from the car, through active travel (walking and cycling) and reducing the need to travel.



Health:

A Scotland which protects its citizens from the harmful effects of air pollution, reducing health inequalities.



Legislation and Policy:

A Scotland where all European and Scottish legal requirements relating to air quality are as a minimum complied with.



Placemaking:

A Scotland where air quality is not compromised by new or existing development and where places are designed to minimise air pollution and its effects.



Communication:

A Scotland where all citizens are well informed, engaged, and empowered to improve our air quality.



Climate Change:

A Scotland that reduces greenhouse gas emissions and achieves its renewable energy targets whilst delivering co-benefits for air quality.



- Provides High Quality Data
- Informs Policy
- Educates

SAQDW and CAFS– Introduction of PM_{2.5}

- CAFS was published in November 2015;

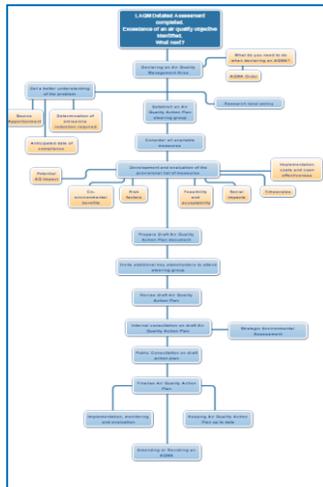
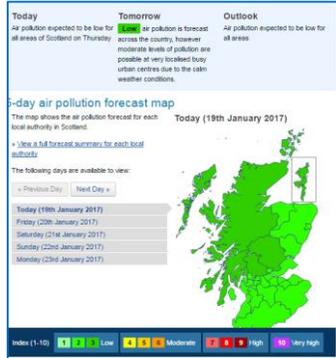
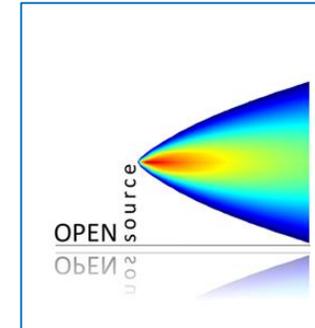
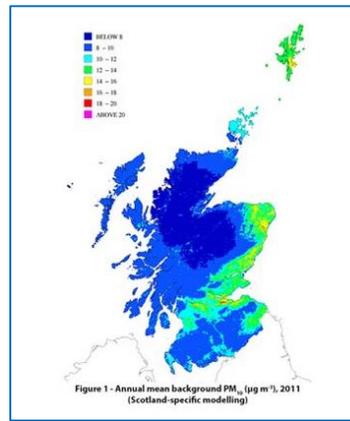
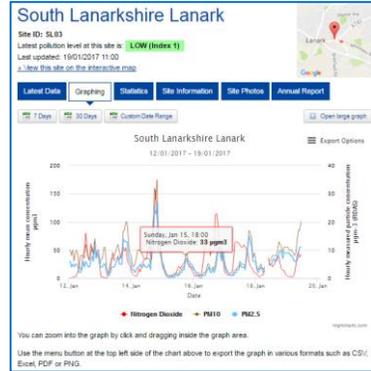
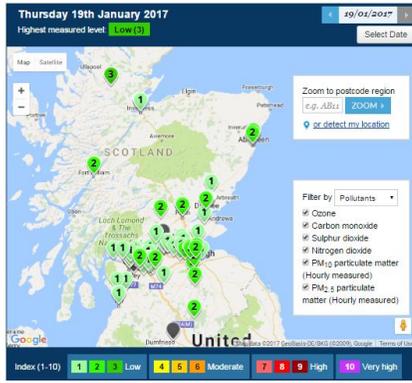
“include in legislation as Scottish objectives World Health Organisation guideline values for PM_{2.5}”

“Establish a PM_{2.5} monitoring network”

1st April 2016 The Air Quality (Scotland) Regulations were amended to include the annual mean objective of 10 µg/m³ for PM_{2.5}

- Nov 2015 – **14** PM_{2.5} sites (8 Local Authority sites)
- Jan 2017 – **25** PM_{2.5} sites (19 Local authority sites)
- @ 12 Local authorities

Functions within the Website



Recent New additions to the Website



- Newsletter
- AP Reports <http://www.scottishairquality.co.uk/>
- SEPA data analysis tools
- CAFS Page <http://www.scottishairquality.co.uk/air-quality/CAFS>
- News Alert Emails – are you included?

Air Pollution Report

1st January to 31st December 2016

Aberdeen Anderson Dr (Site ID: ABD1)

Note: These data are provisional
Only relevant statistics for LAGM are presented in the table. Cells with - indicate no data available or calculated.

Pollutant	NO _x µg/m ³	NO ₂ µg/m ³	NO _x +NO ₂ µg/m ³	PM ₁₀ µg/m ³
Number Days Low	-	359	-	364
Number Days Moderate	-	0	-	0
Number Days High	-	0	-	0
Number Days Very High	-	0	-	0
Max Daily Mean	67	64	163	38
Annual Max	261	142	541	116
Annual Mean	15	22	46	14
98th Percentile of daily mean	-	-	-	32
50th Percentile of daily mean	-	-	-	22
90th Percentile of hourly mean	-	103	-	-
98th Percentile of hourly mean	85	73	156	38
50th Percentile of hourly mean	57	59	145	31
50th Percentile of hourly mean	6	15	25	12
% Annual data capture	95.69%	95.77%	95.77%	99.10%

Instruments: PM₁₀ Conventional TECOM Gravimetric Equivalent (ICM correction applied) (01/01/2016 to 31/03/2016); Conventional TECOM Gravimetric Equivalent (01/04/2016 to 31/12/2016)
All gaseous pollutant mass units are at 20°C and 1013mb. Particulate matter concentrations are reported at ambient temperature and pressure. NO_x mass units are NO_x on NO₂ µg m⁻³

1 / 3
Report produced by Ricardo Energy & Environment

Air Quality in Scotland

Welcome to the first Scottish Air Quality Database (SAQD) stakeholders 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 our 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 Scotland website.

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

NEWS

NEW DATES FOR THE SAQD ANNUAL SUMMER AND SHROUDBLOSS MESSAGES

We have taken the feedback from last year's seminar and stakeholders meeting on board and the dates have been revised. The annual seminar will be now held in January of each year starting next year (2017).

The 2017 Seminar will take place at Doubletree by Hilton in Edinburgh City Centre on 24th January 2017. Dates to be confirmed very soon. Please save the date in your diary and further information regarding the day will follow in the near future.

NEW UK 2018 REFERENCE YEAR BACKGROUND MAPS

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 2013 (updated from 2011) in-line with recent updates to the Department for Environment, Food and Rural Affairs (Defra) UK-wide background maps. Background maps are provided for each 1 km x 1 km grid square in Scotland for 2013 to 2016. They are available for download by Local Authority from the Air Quality in Scotland website (<http://www.scottishairquality.co.uk/Data/Maps/Background>)

Please note that Scotland specific maps are not currently available for PAUs. It is recommended

FUNDAMENTAL PROTECTION

For this edition, we aim to gather the Scottish Environment (SEPA) on their involvement for community and various air quality events.

In summer, SEPA along with science and young Scot worked hard a series of events around events, supported by Scottish Environment (SEPA) as part of this year's national programme for young people to develop fresh ideas for solving air quality. This year was no exception as developing novel ideas to promote, protect and prevent air quality.

Also in June by AirTime (the Glasgow Science Festival) young people in the challenges of air pollution. A collection of fun and advice experiments to help understand the harmful effects of air pollution. South Lanarshire Council are their guests on city planning files of dealing with Air Quality (AQMA), while others on demonstration showing how to use air quality.

In teacher, preparing the young people for this year's three-week workshop. Young people from across Scotland are being brought together to develop new products that would be innovative.

We have developed the latest set of meters from the world's leading product design, 3D

http://www.scottishairquality.co.uk

Air pollution in Scotland 2016 – FoE article



Scotland's Most Polluted Streets Revealed - 5 New Pollution Zones Declared

Like 73

Tweet

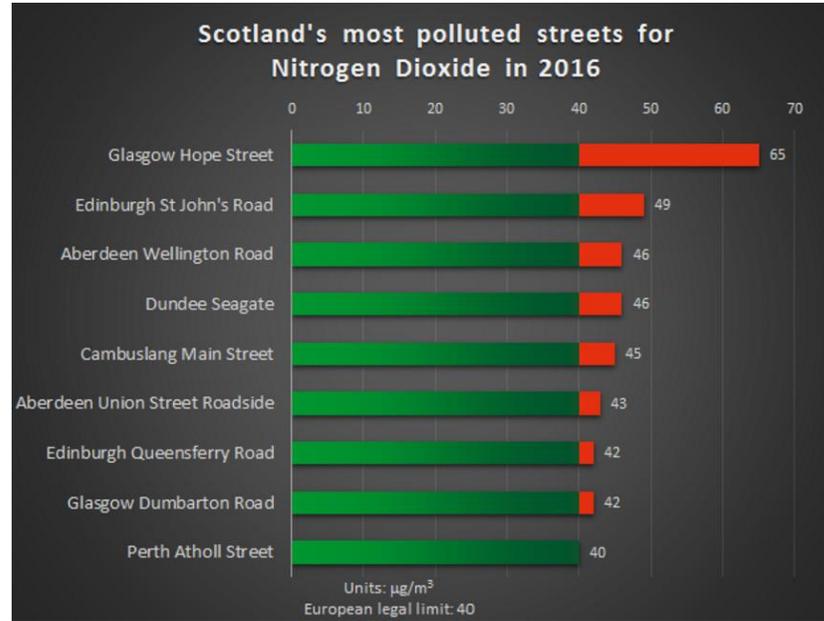
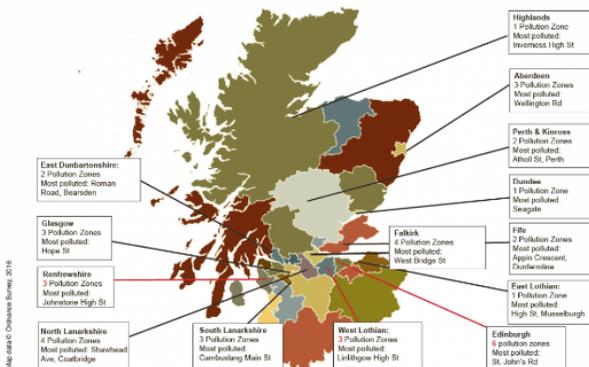
[Click here to Take Action for Clean Air](#)

Friends of the Earth Scotland today published a list of Scotland's most polluted streets in 2016, showing that streets in many parts of Scotland continue to have unsafe and illegal levels of toxic pollution seven years after a legal deadline and despite a Government plan to comply with clean air obligations.

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There are now a total of 38 Pollution Zones in Scotland where air quality safety standards are regularly broken, up from 33 last year. In 2016 new official Pollution Zones were declared in Linlithgow and Newton in West Lothian, Johnstone and Renfrew in Renfrewshire, with another new one in Edinburgh's Salamander Street coming into force later this month.

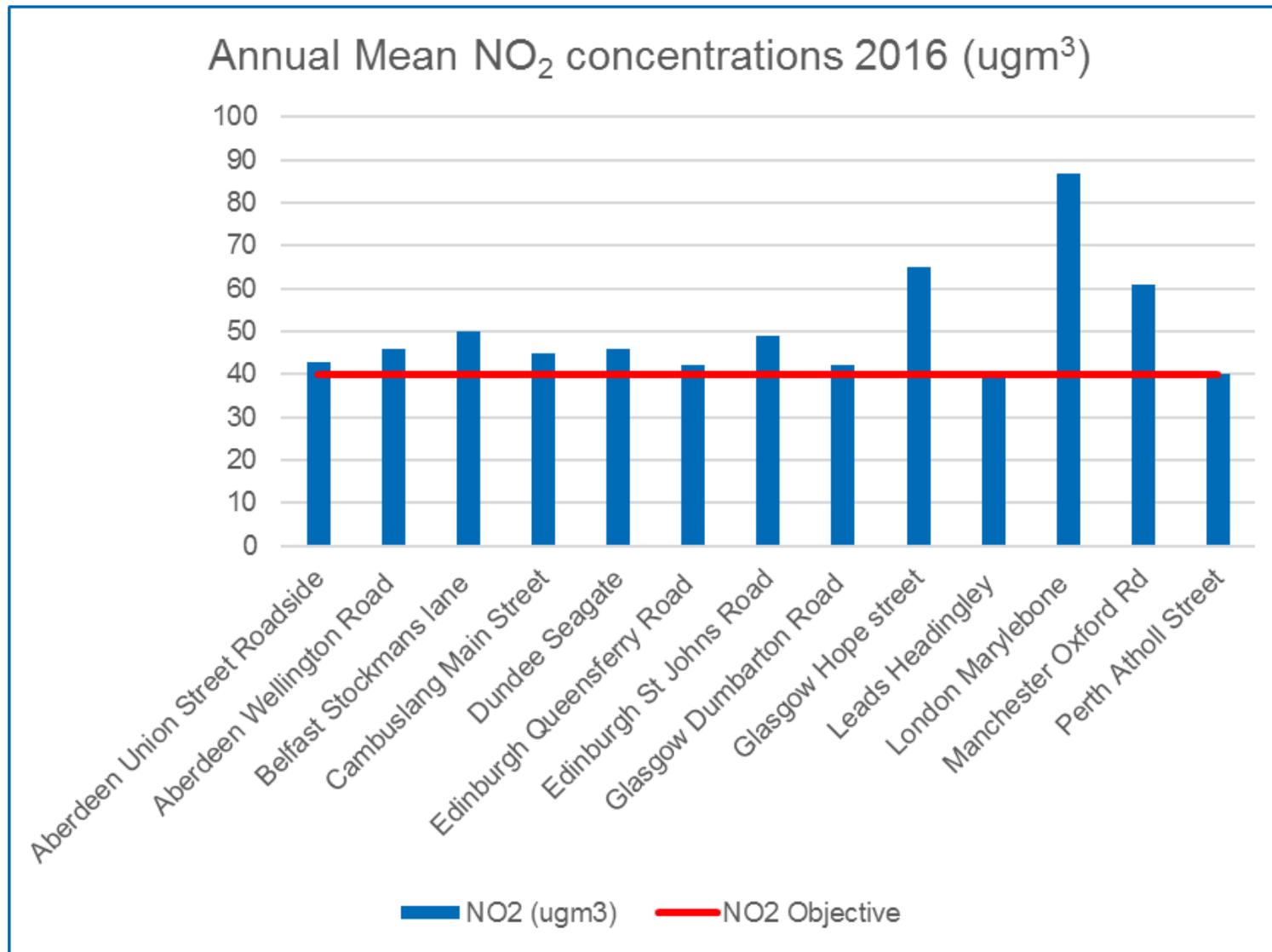
Scotland's Air Pollution Zones

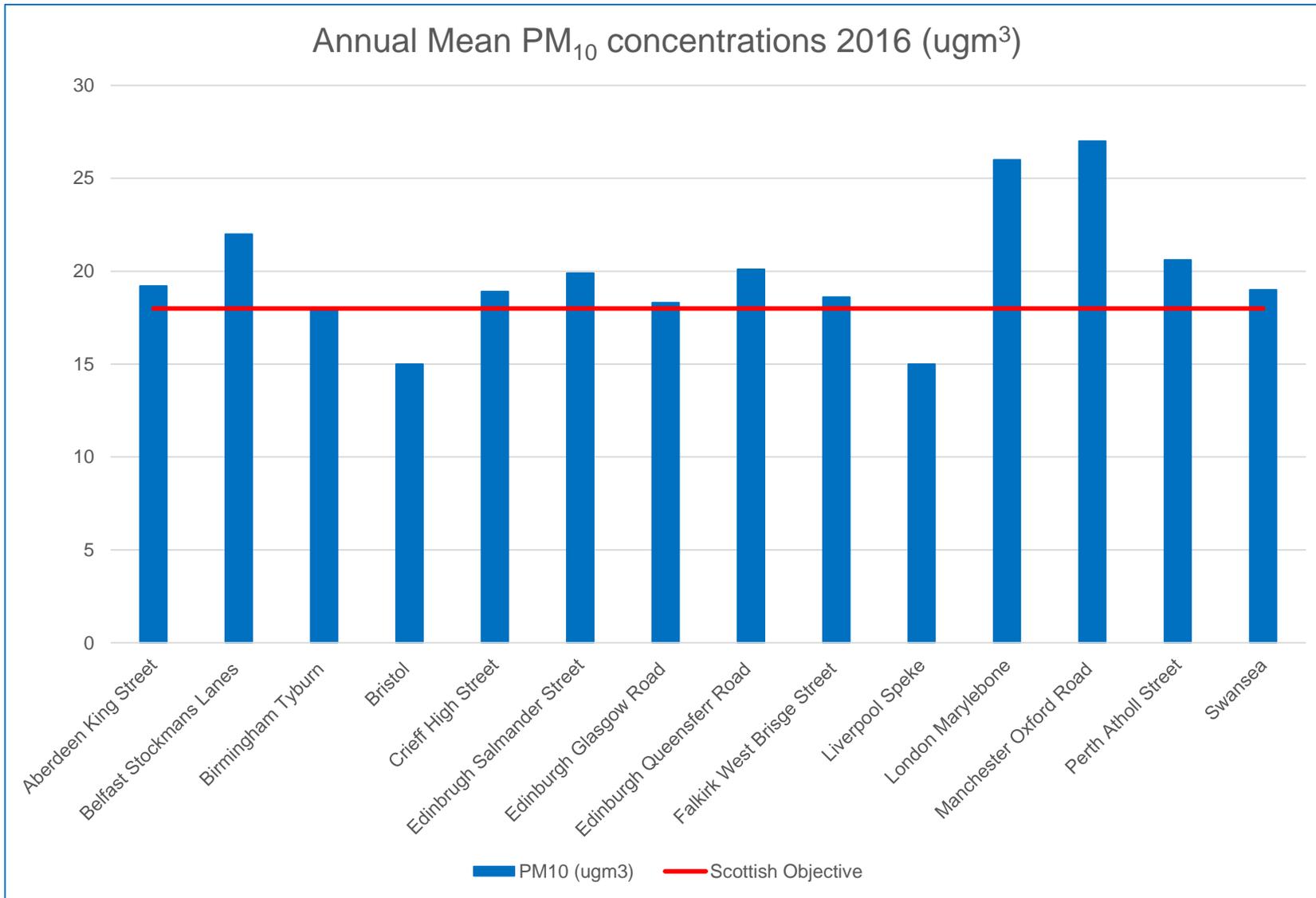


Air pollution in Scotland



- FoE Article
 - Raises awareness but ignores lots of good work being undertaken by the Scottish Government and Local Authorities
 - Sense check:
 - Provisional data is being used
 - Doesn't take into consideration site locations – Kerbside
 - Review long term trends to see what happening
 - PM₁₀ target is 18 µg/m³, most stringent in Europe
- Exciting developments and work being undertaken:
 - CAFS
 - Introduction of PM_{2.5} objective (10 µg/m³)
 - Increase in Monitoring and AQMAs (now 38 from 33 last year)
 - Large number of awareness raising activities – e.g. Twitter, Apps, Education Programmes





Long Term Trend at the Most polluted sites in Scotland



- Interactive Reports



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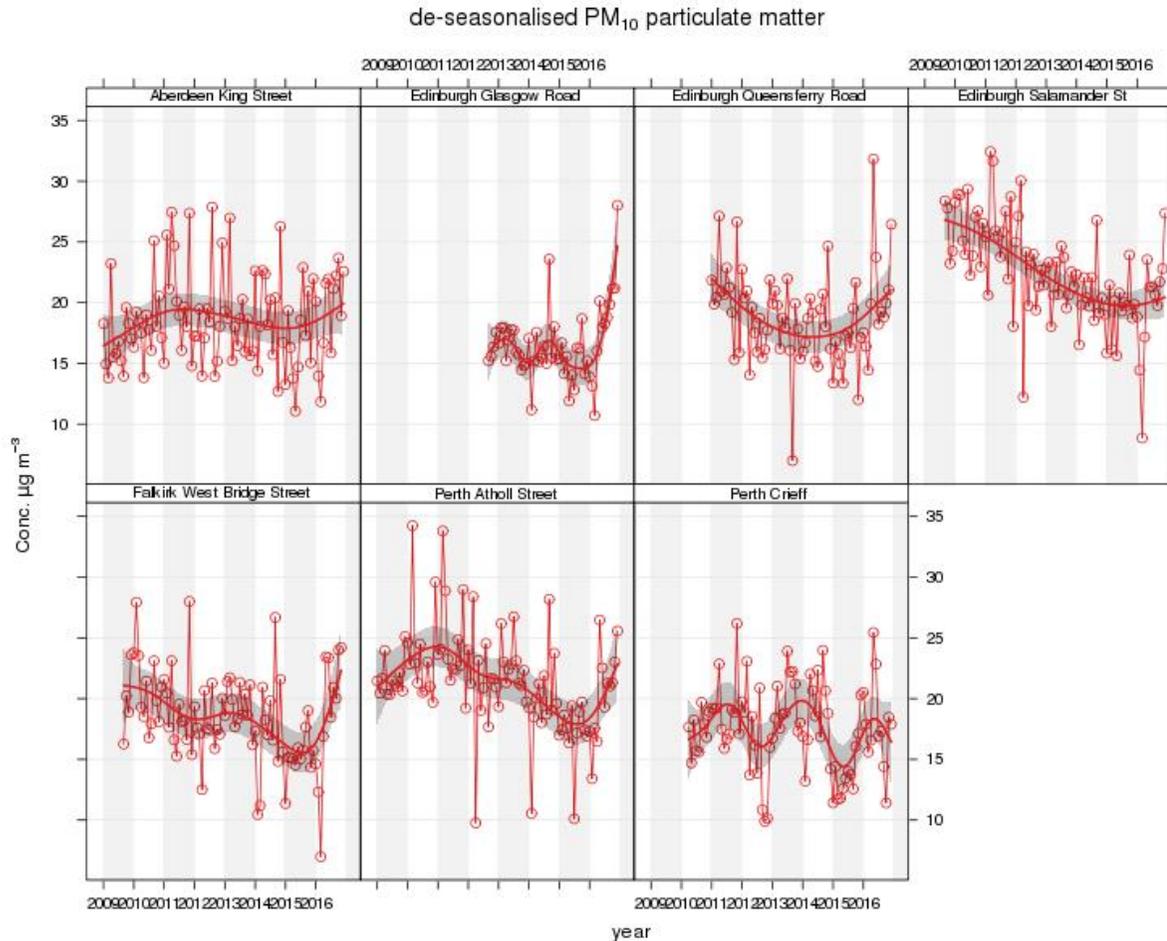
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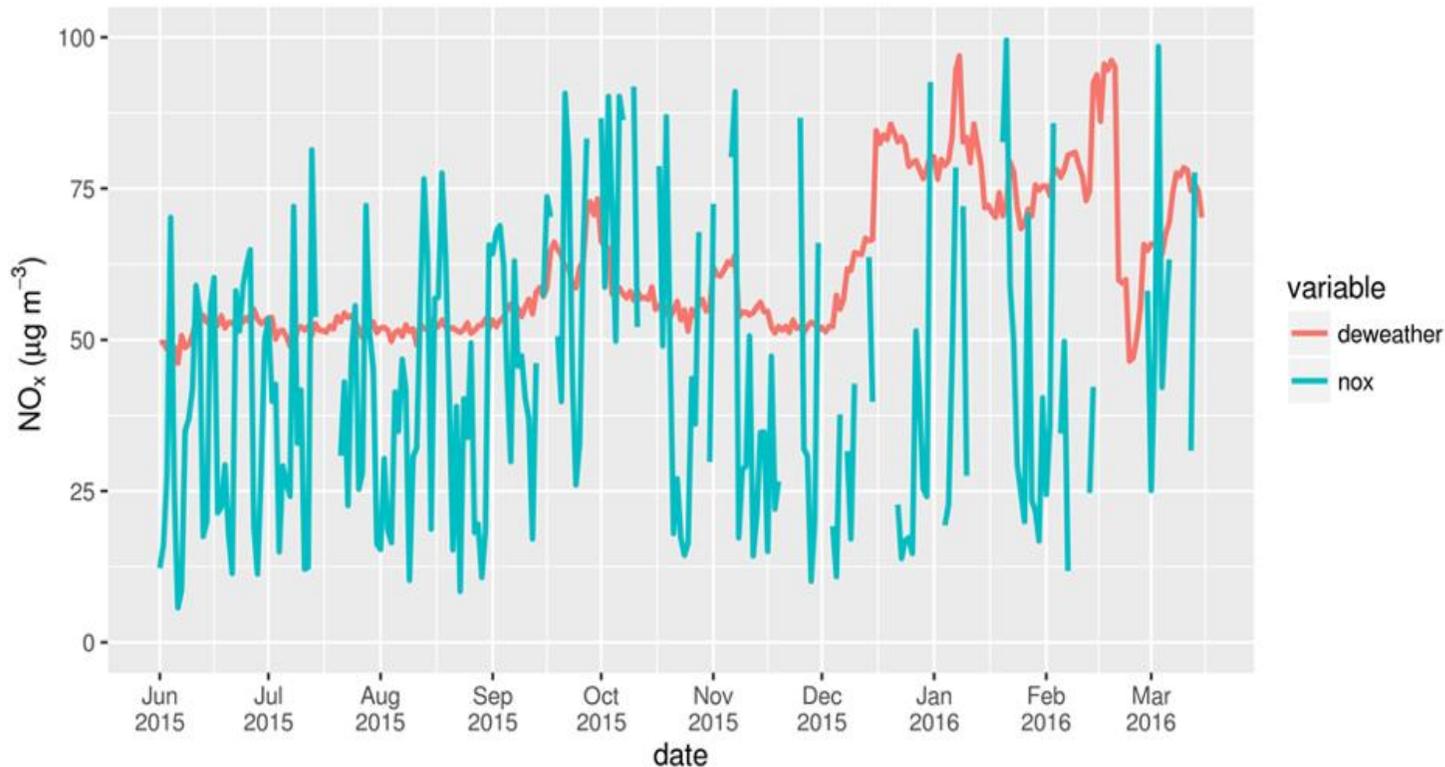
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Interesting Air Quality and Data Analysis Event: FRB Closure

- Fife Council commissioned a report to assess West Fife's air quality before, during and after the Forth Road Bridge closure from Dec 2015 to Feb 2016

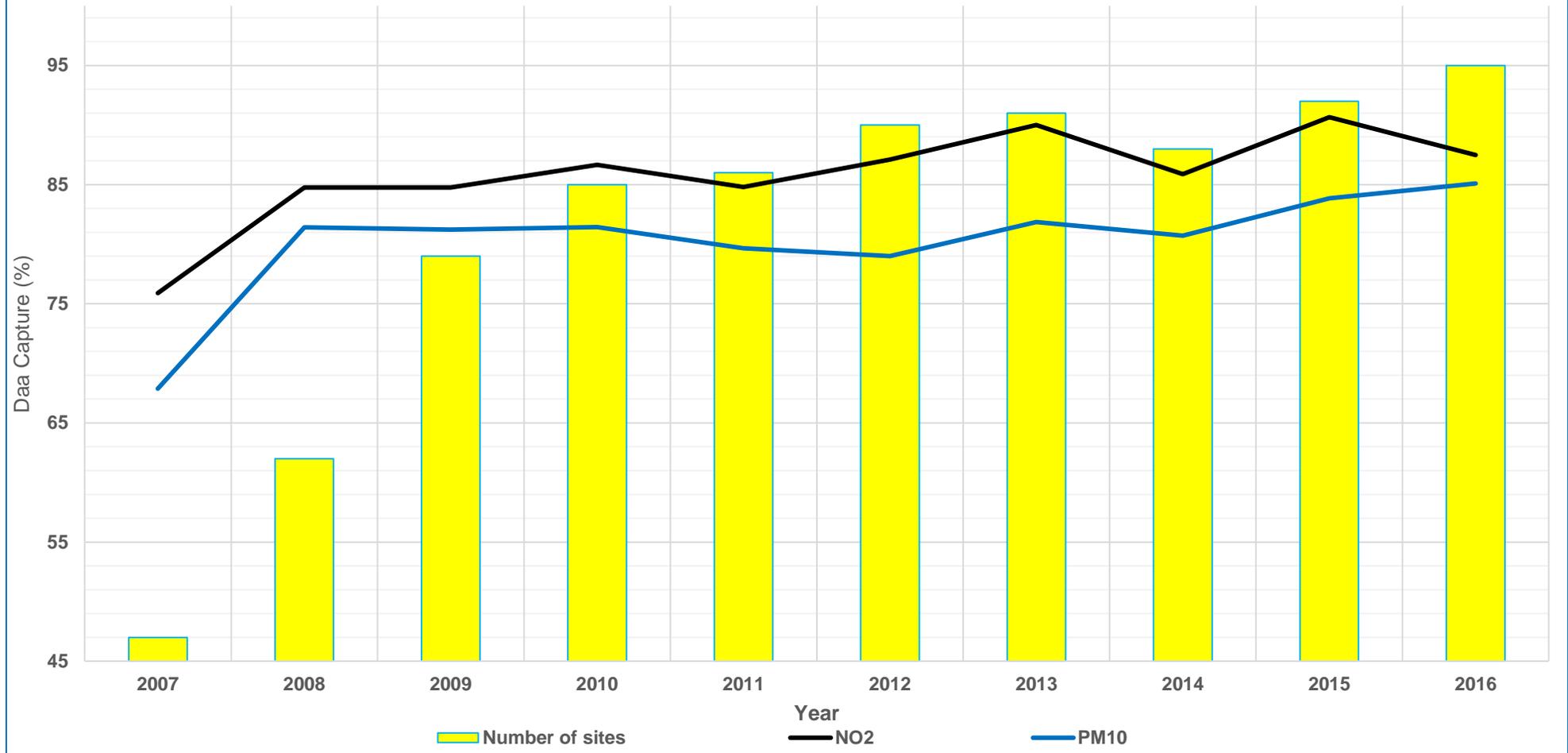
Figure 21: Daily averaged monitored NO_x plotted against modelled de-weather adjusted daily average NO_x



Quality Assurance/Quality Control

- Importance of calibrations
 - Essential to the QAQC process
 - No cal data, we are unable to ratify
 - Reliance on autocal data
 - LSO training
 - LSO manual available of the Website
 - Youtube channels
 - Ricardo audits
- New Sites – Ricardo will provide support in locating sites.
 - Important to get it right
 - Renfrewshire – new Johnstone site
- Change in reporting of data 2016
 - Reporting to one decimal place in line with AURN
 - Reporting of negative gaseous concentrations in datasets
- Data capture Trend

Data capture for SADQ Network: NO_x and PM₁₀

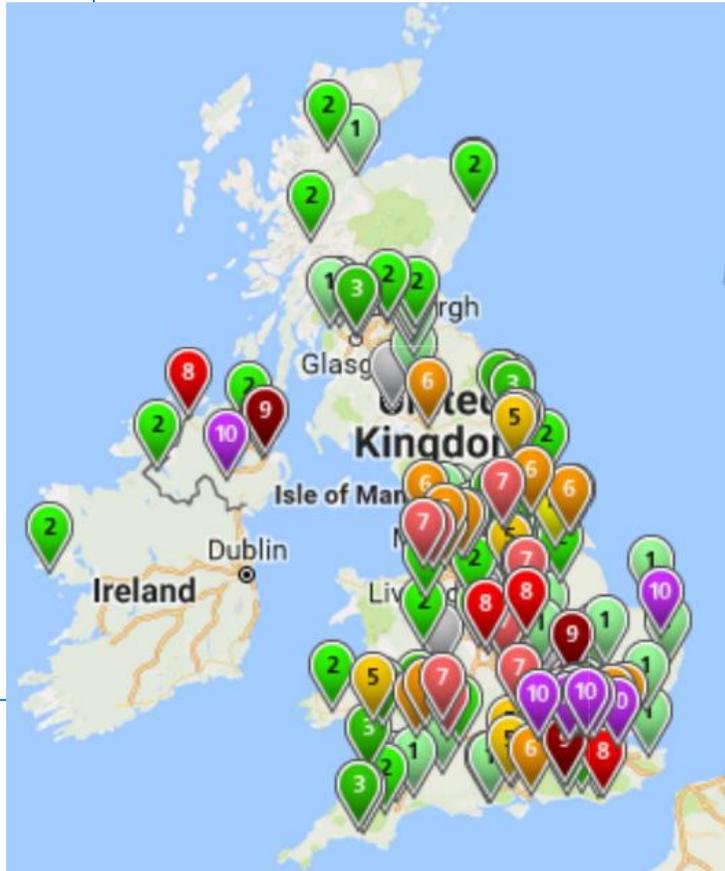


Your Scottish Air Quality Database and Website



- Feedback
- Suggestions
- Use it as a way to show of the work you are doing (events, Action Plan, Initiatives etc)
- Library of Information
- One stop shop for Air Quality in Scotland

Air pollution in Scotland – could be worse





Questions



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