



**The Scottish  
Government**  
Riaghaltas na h-Alba



**Ricardo**  
**Energy & Environment**

# **Overview of Air Quality in Scotland**

## **Scottish Air Quality Database and Website Annual Seminar –**

### **Air Quality In Scotland Project Developments**

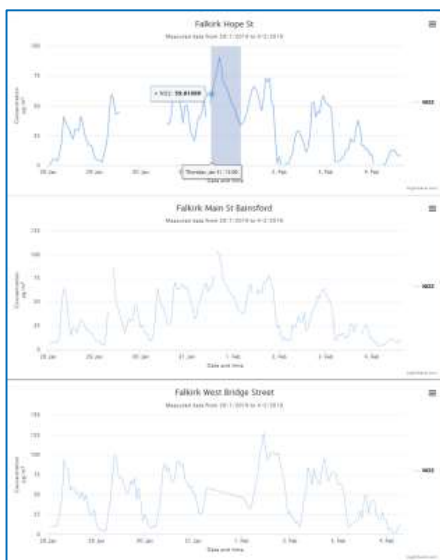
**David Hector - Ricardo Energy and Environment**

12<sup>th</sup> February 2019



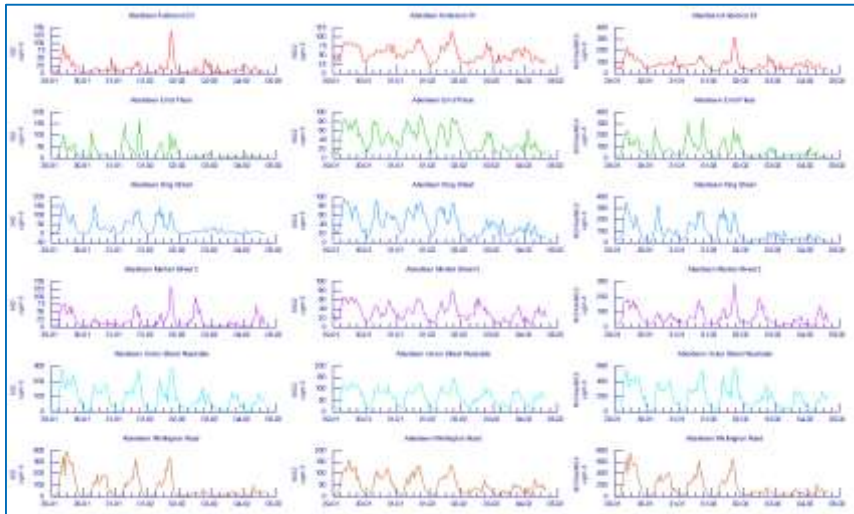
# Air Quality In Scotland Project Developments 2019

1. Interactive Pollution Graphs
2. Diffusion Tube Map
3. Air Quality in Scotland App update





# 1. Interactive Pollution Graphs

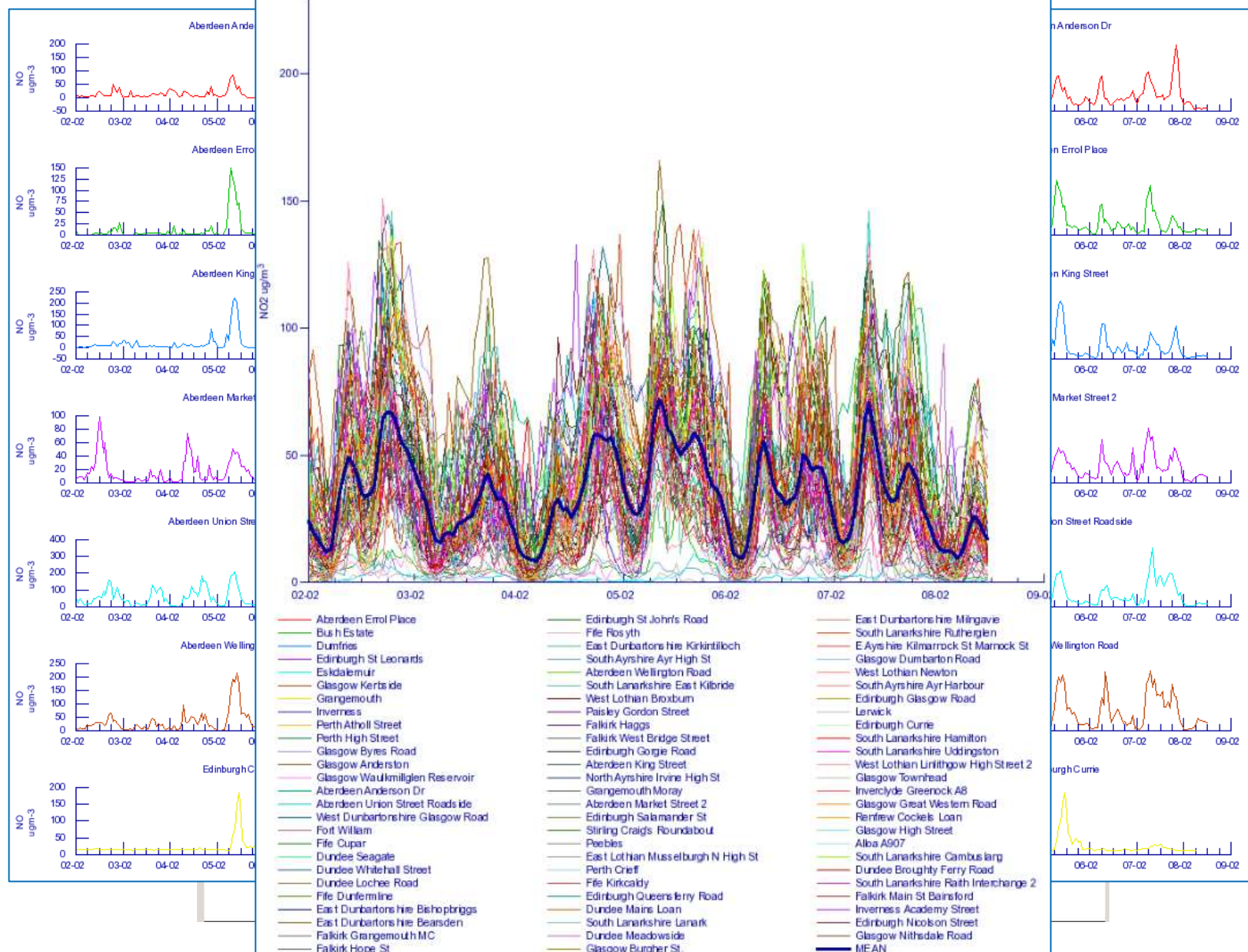


<http://www.scottishairquality.scot/latest/pollutant-site-graphs>

<http://hornbeam.harwell.aeat.com/scotarc/public/latest/pollutant-site-graphs>



# Interactive Pollution Graphs





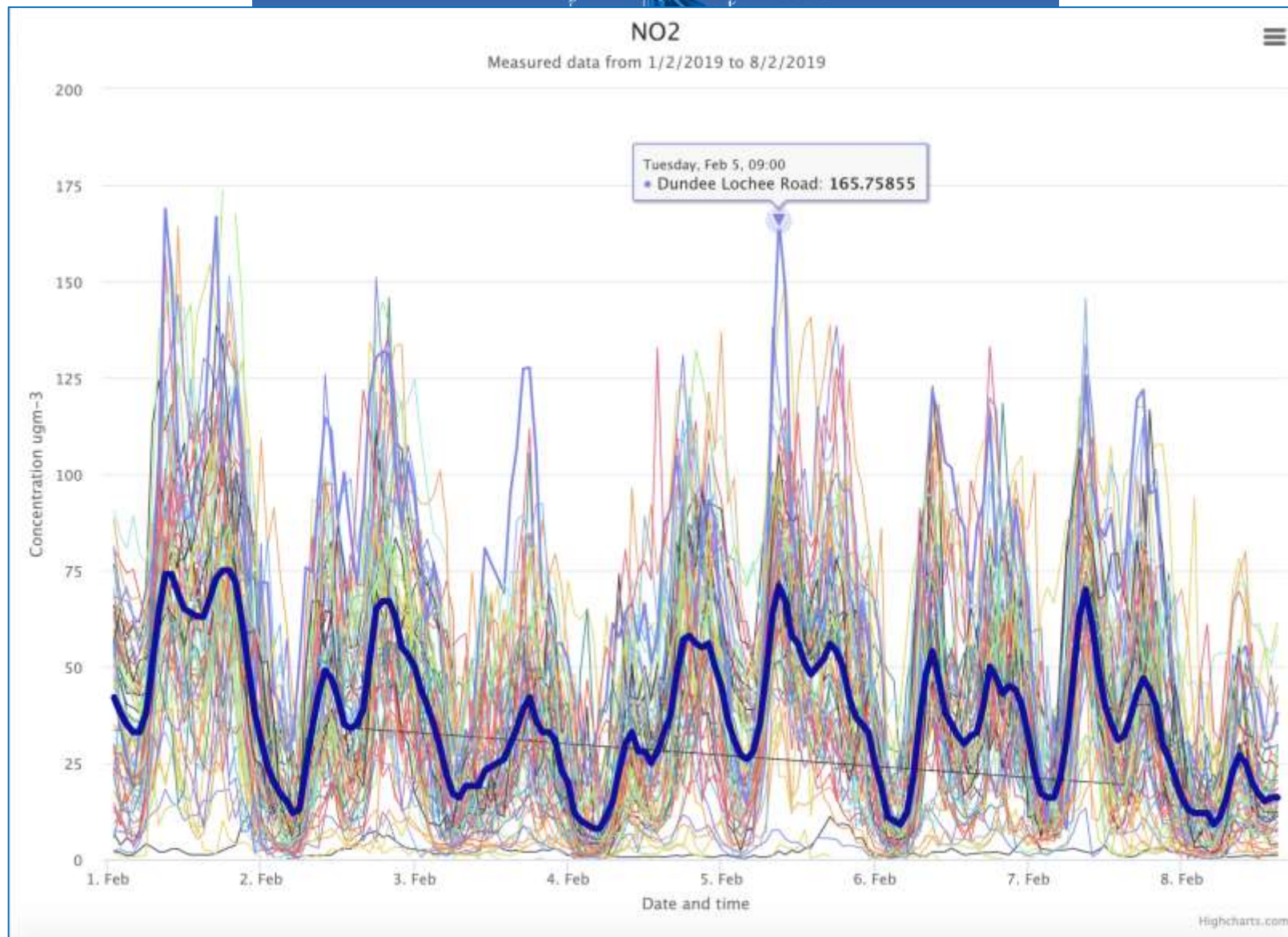
# Interactive Pollution Graphs



[http://preview.scotarc.aeat.com/latest/  
diffusion-sites](http://preview.scotarc.aeat.com/latest/diffusion-sites)



# Interactive Pollution Graphs





## 2. Air Quality in Scotland - Diffusion Tube Map

- Since 2006 Automatic data has been disseminated via the Air Quality in Scotland website.
- Local Authority Diffusion tube data has only been available via Annual Progress Reports and LAs website sites.
- This has meant that not all LAQM data is easily accessible from the one place
- In turn people weren't seeing all the data available to them with regards LAQM.
- Scottish Government Commissioned Ricardo to create a Diffusion Tube Map within the Air Quality in Scotland Website.
- It will provide;
  - Map showing all locations
  - Published Annual Mean Concentrations
  - Site Meta data -
    - Site Type
    - Site Co-ordinates
    - Data Capture





# SAQD Diffusion Tube Map



<http://preview.scotarc.aeat.com/latest/diffusion-sites>

<http://hornbeam.harwell.aeat.com/scotarc/public/>







- Password Protected Preview Page will be issue to Stakeholders
  - Stakeholder Feedback
- Diffusion Tube Map and Pollution plots will go live within the next month

Continue to send in your data



### 3. Air Quality in Scotland App update

- Since the launch of stage 2 version of AQ Scotland App in 2015 it became apparent that further improvements were required under Stage 3.
- There were key functionalities that needed to be revised to ensure the application was up-to-date and in accordance with the ever changing requirements of Google Play and Apple Store.
- As of September 2018 the App was no longer available in App stores because it wasn't meeting the relevant requirements.

**Scottish Government thought it would be a good opportunity to try and enhance the Apps capabilities and in turn help meet CAFS aims and objectives**



### 3. Air Quality in Scotland App update

To further engage and inform the public about air quality in Scotland, Scottish Government asked Ricardo to development 3 new functions within the App :

1. **App Notification Alert for elevated site data**
2. **App Notification Alert for Local Authority areas with forecast elevated pollution levels**
3. **App Notification Alert when entering an AQMA**





# 3. Air Quality in Scotland App update

## 1. App Notification Alert For Elevated Site Data:

- When an automate site within the users chosen area goes Moderate/High /Very high, a notification will appear on their smart phone or tablet devise informing them of the location and pollutant of concern.
- It provides the user with an option to select a Local authority of interest.
- The notification will be colour coded in accordance with the current AQ Index.
- The notification will provide an option to find out further information about the health implications of the elevated pollution.
- It is often the case that erroneous data causes sites to go Moderate/High /Very high, so a checking system will be put in place that will allow Ricardo to quickly verify the elevated levels before a notification is released.





# 3. Air Quality in Scotland App update

## 2. App Notification Alert for Local Authority Areas With Forecast Elevated Pollution Levels:

- Similar to Notification Alert Function For Elevated Site Data ,
- It notifies the user when the air pollution forecast is moderate or above for the users chosen local authority of interest.
- The system will work in the same way as the alert for elevated sites and in conjunction with the current Know and Respond Alerts system





# 3. Air Quality in Scotland App update

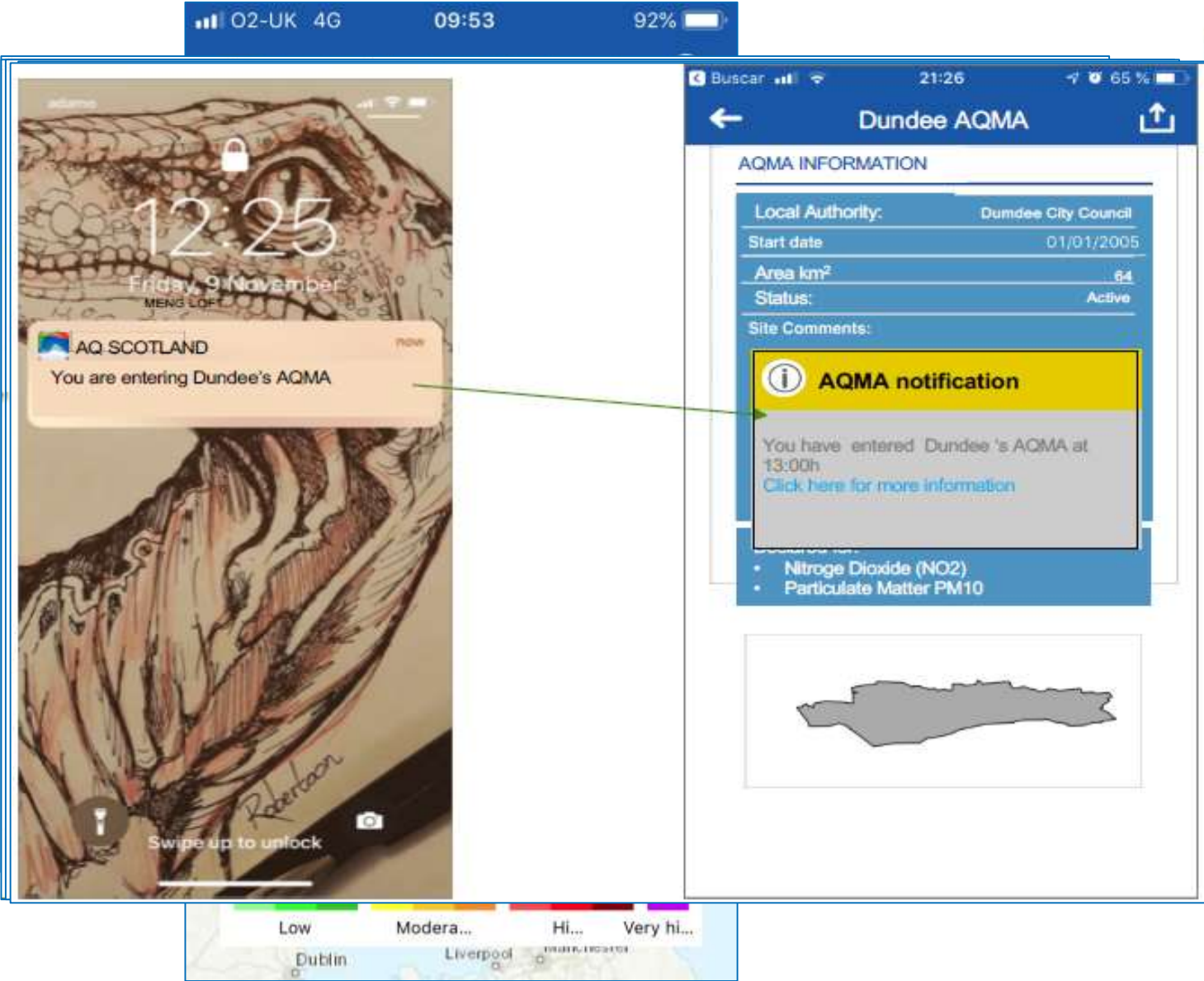
## 3. App Notification Alert When Entering an AQMA:

- A notification alert system that alerts the users when they are enters an AQMA.
- Using GIS data of all AQMAs in Scotland the function will send a notification to the user once they enter an AQMA and then provide them with useful information such as
  - latest data,
  - map of AQMA,
  - nearest monitoring location
- When AQMAs are added, amended or are revoked, this information will be automatically updated when the information is made available.
- In addition, App will now provide additional information on AQMAs in Scotland.
- This will include an interactive map showing the location and boundaries of the AQMAs.





# 3. Air Quality in Scotland App update





Your feedback and  
suggestions are important

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# Questions





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