

# Aberdeen City Council Air Quality Action Plan Progress Report

January 2013



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# **1 Introduction**

Aberdeen City Council approved a new Air Quality Action Plan (AQAP) in March 2011 to cover the City's 3 Air Quality Management Areas (AQMAs). The 2011 Action Plan replaced the original 2006 Plan that covered only the City Centre area.

The AQAP recognises the solutions to Aberdeen's air quality issues need a coordinated approach involving a range of stakeholders. A wide number of measures are included in the AQAP. The majority are concerned with reducing the impact of transport emissions which have been identified as the main cause of the increased pollution levels. Specific indicators and targets have been developed, in line with the Local Transport Strategy (LTS) and Regional Transport Strategy (RTS), to improve the monitoring of progress in the implementation of the AQAP.

The Council must work in partnership with businesses and other interested parties across the City if it is to meet its air quality objectives. The proposals and actions detailed in this report summarise the progress made over the last 12 months, but also show that the Action Plan is an active document designed as a rolling programme that will run for several years.

A number of other Council plans, policies and actions relating to the environment such as energy, climate change and noise management have the potential to influence air quality. For example, the Environmental Noise Directive (ENDs) requires major cities and transport systems to be mapped for environmental noise and Action Plans developed to manage noise in these areas. Future plans and policies will require to be linked to ensure the most efficient use of resources and, where possible, the implementation of measures that will have a positive impact across these areas.

## **2 Legislative Context**

Part IV of the Environment Act 1995 places a statutory duty on all Local Authorities in the UK to periodically review and assess air quality to determine compliance with the Government's health-based objectives for seven key pollutants set out in the National Air Quality Strategy and Air Quality Regulations (Scotland) 2000 and 2002 amendment. Authorities that determine air quality in their areas is likely to fail to meet the objectives are required to declare the exceedance area as an AQMA. Thereafter they must prepare an Action Plan in pursuit of achievement of the air quality objectives within the designated area.

## **3 Air Quality Management Areas in Aberdeen**

There are 3 AQMAs in Aberdeen all of which were declared due to exceedances of the annual mean objectives for nitrogen dioxide (NO<sub>2</sub>) and particles (PM<sub>10</sub>). The 1 hour objective for NO<sub>2</sub> and 24 hour objective for PM<sub>10</sub> are also exceeded in the City Centre. Road traffic is the main source of the

raised emissions. While air quality in the AQMAs is of particular concern, the AQAP aims to address air quality issues across Aberdeen.

**Figure 1: Map of the City Centre, Wellington Road and Anderson Drive Haudigain roundabout/Auchmill Road AQMAs**



## **4 Air Quality Action Plan**

The AQAP sets out a strategic approach to improving air quality in Aberdeen. It puts forward a range of measures aimed at reducing emissions in order to achieve the Air Quality objectives. These are prioritised into the following 6 categories or 'action headings':

- Modal Shift and Influencing Travel Choice
- Lower Emissions and Cleaner Vehicles
- Road Infrastructure
- Traffic Management
- Planning and Policies
- Non-Transport Measures

As road traffic is the main source of the emission, this Progress report additionally aims to improve the integration of the AQAP with the measures in the LTS and RTS. Specific targets, in line with the LTS and RTS, are presented that will support the monitoring of progress.

It is also important to emphasise the link between travel demand, the land use planning system and the Local Plan. Coordinated planning across the City

can help to locate and design developments such that the need to travel by car is reduced significantly. A coordinated approach can also ensure that road infrastructure improvements are planned to accommodate new developments and improve the existing network. In this way the cumulative effect of road transport emissions from multiple developments can be minimised and congestion on the existing network reduced.

Table 1 summarises the AQAP measures and progress in implementation. The following highlights some of the key initiatives that have been progressed in the last year and sets out the timescale for implementation of the road infrastructure improvements that are likely to have a significant impact on air quality.

## **Action 1: Encourage Modal Shift and Influencing Travel Choice**

### **Car Club/ Car Pooling**

- On 2nd April 2012 the Aberdeen Co-wheels Car Club was launched. Members book a car via the phone or the internet when they need it and are charged on a pay-as-you-drive basis. Originally launched with eleven 4-7 seater cars available to members of the public and businesses, the Club has already expanded to include another car at Aberdeen harbour. All of the cars are low emissions for their class, with eight of them under 100g/ CO<sub>2</sub> per km. A great deal of literature and advertising has taken place with radio adverts and a short web video made. A leaflet drop to 10,000 households and businesses in the City Centre is also underway.

Now six months on the City has the fastest growing new Car Club in the UK, with over 300 members (Car Plus, Oct 2012). In this time hydrogen vehicles have been trialled as part of the All Energy Conference in Aberdeen and the Club hopes to be the first in the UK to officially adopt clean (i.e. wind produced) hydrogen vehicles on a permanent basis. By April 2013 Co-wheels plan to expand the Car Club to another 3 locations and add an electric car to the fleet.

Aberdeen City Council Planning service is also developing robust policies as part of the Aberdeen Local Development Plan to secure developer contributions for the Car Club especially in low or no car housing developments.

### **Air Quality/ Active Travel Promotional and Awareness Activities**

- 3 'Getabout' 1 minute rolling presentations were produced showing the benefits of walking/cycling, using local transport and why car usage should be discouraged. The presentations included air quality information and were displayed at a promotional event held in a city centre shopping centre. They are also available on You Tube and a

link is shortly to be put up on the Council's Transport Strategy Facebook page.

- A 'Getabout'/air quality event that involved the closure of Belmont Street in the city centre was organised as part of European Mobility Week 2011. Bikes of various type were available for the public to try in a designated area and marquees set up with representatives from the council's air quality and transportation strategy teams, 'Getabout', Aberdeen Cycling Forum and the Carbon Trust to provide information and numerous freebies. Local cycle vendors and the bus companies were also present. Another similar event took place at Aberdeen Beach in September 2012 and attracted approximately 1000 people, with over 500 trialling the bikes.
- The Scottish Government launched a free national 'Know and Respond' text message pollution alert system in February 2012. Alerts are sent via a text message or email to those who sign up to the system advertising when moderate or worsening air pollution is forecast for the day ahead. In June 2012 the Council, in conjunction with NHS Grampian, advertised the system in the local press to encourage local uptake.

### **Walking and Cycling Infrastructure**

- The Council is working on a number of strategic cycle projects around the City however the main ones running through AQMAs are the National Cycle Network (NCN) Route 1, the A96 and A90 Dual Use Paths. Changes to the NCN have included rerouting the cycle route away from the Market Street corridor/AQMA, instead using quieter parallel routes and then Union Street. The A90 is currently going through initial design for future phased implementation. Phase 1 of the A96 route is complete (Haudagain to Bucksburn) with resurfacing improvements, dropped kerbs, signage and installation of two toucan crossings. Phase 2 of the A96 route which will be undertaken in 2014 will involve work with the Aberdeen Western Peripheral Route (AWPR) Managing Agent as the intention is to connect this strategic cycle route to the new Park & Choose site.

## **Action 2: Lower Emissions and Cleaner Vehicles**

### **Green Vehicle Procurement and Fuel**

- Officers are currently working on an Electric Vehicle Strategy future implementation of electric charge points funded at the moment by Transport Scotland. In 2011/12 ten charging posts were installed in Council and public car parks. Work is ongoing to ensure that these are fully operational and converted to a Pay As You Go system for maximum public accessibility. Two further electric vehicles were also procured for the Council fleet. This brings the total number of electric

vehicles in the Council's fleet to six including one hybrid vehicle. The two electric vans are also used for a shared mail run between Aberdeen City Council, NHS Grampian, Grampian Police and Aberdeenshire Council.

- Aberdeen City Council supported applications by Stagecoach for the Scottish Government's Green Bus Fund in 2011. Several hybrid buses are now running in the City to Aberdeen Royal Infirmary from the City Centre. The buses have a 30% reduction in emissions compared to diesel equivalents.

### **No Idling Study**

- A 'No Idling Feasibility Study' was carried out that located potential areas to enforce no idling initiatives and install signage. Although the Council determined not to install signs, a leaflet was developed and distributed to all taxi drivers, bus and freight operators, major businesses and other relevant stakeholders as part of a publicity campaign. Information is also available on the Council's website.

## **Action 3: Road Infrastructure**

### **Road Building/ Junction Alterations**

- The Aberdeen Western Peripheral Route Legal Challenge submitted to the Court of Session was dismissed in June 2011, however a further appeal to the Supreme Court was lodged in May 2012. An announcement on 17<sup>th</sup> October 2012 has rejected the Appeal and as a result work can now start on implementing the route. The date of completion is currently indicated as Spring 2018. In addition to the direct benefits of this project, a number of 'Locking in the Benefits' projects can now be developed further with a view to implementation post AWPR.

## **Action 4: Traffic Management**

### **Freight and Commercial Vehicle Access**

- A Freight Consolidation Centre was considered as part of EU Interreg Project STRATMOS. Several possible locations were identified and a new EU Interreg Project, Grecor, will investigate these in further detail.
- A Commercial Delivery Strategy for the city centre is currently investigating potential improvements to ensure better access for freight and quick turnaround on deliveries, etc. Possible actions so far include route prioritisation, revisiting delivery times, potential delivery spaces and complementary activities, such as ensuring that bus lanes are

clearways at certain times, with all other vehicles that block the flow of traffic being booked immediately.

## **Intelligent Transport Systems**

- Officers are currently working with Transport Scotland to deliver real time information at and on approach to Park & Rides using Variable Message Signs (VMS). This will inform drivers of the time taken to take the bus in to town compared to the car. Air quality information may also be displayed to inform drivers of when air quality is particularly poor in the city centre. In addition, VMS signs will offer alternatives to congested routes – thereby enabling drivers to avoid, rather than add traffic to already congested areas.

## **Action 5: Planning and Policy**

### **Supplementary Planning Guidance**

- Draft air quality Planning Supplementary Guidance (SPG) was produced in 2010 as part of the development of a new Aberdeen Local Development Plan (ALDP). Consultation on the ALDP, took place during 2011 and the final ALDP, including the Air Quality SPG was formally adopted in February 2012. The SPG provides guidance on the way air quality will be dealt with through the planning process, when an air quality assessment will be required and what should be included.

The SPG does not contain any specific policy on biomass installations. A subsequent biomass policy was approved by the Council's Housing and Environment Committee in November 2011. The policy recommends that new biomass installations are not permitted in an AQMA or adjacent defined buffer zone unless it can be demonstrated that the change in the annual mean NO<sub>2</sub> or PM<sub>10</sub> concentration will be negligible. Although the biomass policy does not have the same weighting as SPGs in the planning process, it nonetheless clearly states the Council's position with regards to the provision of new biomass installations in locations where there is existing poor air quality.

- Both the Council's 2012 ALDP and the Aberdeen City and Shire Structure Plan 2009 include the provision of several major residential and commercial developments and associated transportation interventions in Aberdeen and along strategic growth corridors in Aberdeenshire over the period 2011-2023. A 30% increase in annual mean kilometres travelled is predicted. Cumulatively these developments have the potential to significantly impact on air quality in the AQMAs. Planning permission has been granted for several developments and construction commenced.



A modelling study in 2011 was carried out to indicate the likely cumulative impact of the developments on the AQMAs. Although the modelling predicted NO<sub>2</sub> and PM<sub>10</sub> concentrations would reduce by 75-85% and 80-90% by 2023, further sensitivity tests that excluded predicted vehicle efficiency improvements indicated an increase of 40% by 2023. More detailed traffic and dispersion modelling is proposed in 2013 using the recently updated vehicle emission factors.

- Modelling of the new Union Square retail development located between Market Street and Guild Street and adjacent to the City Centre AQMA was also carried out during 2011. This 'high level' modelling predicted NO<sub>x</sub> and PM<sub>10</sub> emissions would increase by 1% (9.8 tonnes) and 1.5% (10.37 tonnes) as a result of Union Square. Potentially more substantial increases were also identified at specific parts of the network. Again more detailed road traffic and air quality dispersion modelling is proposed to provide a greater understanding of the local variations in traffic and air quality impact at relevant receptors. The modelling will additionally indicate whether the measures in the AQAP require further consideration to account for the impact of Union Square.

### **Low Emission Zone/ Transport Masterplan**

- The Low Emission Study concluded that a bus Low Emission Zone (LEZ) on Union Street and a HGV LEZ on Market Street would provide maximum benefit. The LEZ is now being considered as part of the Transport Masterplan or Sustainable Urban Mobility Plan for the City Centre. This will involve the creation of a holistic 'Masterplan' and include all influences on traffic in the city centre such as development of brownfield sites, car parking regimes, car clubs, electric charging, walking and cycling networks, pedestrianised areas, freight deliveries, etc.

### **Car Parking Policies**

- An Emissions Based Parking Charges Feasibility Study was undertaken in 2011/12 to explore the possible models for implementation in Aberdeen after Councillors determined that the system should apply to all car parking zones, not just city centre ones. The report suggested that a 50% reduction could be offered to Euro V/VI petrol vehicles with under 100g/km CO<sub>2</sub> with staggered reductions after this. Individuals would apply for the reduction as part of their business/residential permit or they could sign up for mobile phone payments when using on-street or off-street car parks. Enterprise, Planning & Infrastructure Committee agreed to put the option forward for consideration in the Autumn 2012 Parking Review which is due to report back to Committee in Spring 2013.

## **5 Next Steps**

The major activities taking place over the next 12 months will focus on the Aberdeen Western Peripheral Route and associated Locking in the Benefits Schemes, the Car Club, Parking Charges, the application of Supplementary Planning Guidance, the continued installation and roll out of electric vehicle infrastructure, work on the Sustainable Urban Mobility Plan and further events for air quality and sustainable transport. The Local and Regional Transport Strategies will also be reviewed. These Strategies offer significant opportunities in the wake of the Aberdeen Western Peripheral Route Appeal rejection to now implement significant changes to the local road network and prioritise sustainable and active transport. Similarly a Noise Action Plan will be developed in 2013 providing an opportunity to link noise and air quality.

## **6 Conclusions**

Good progress has been made in the implementation of a number of the policies and measures set out in the AQAP. However, NO<sub>2</sub> and PM<sub>10</sub> concentrations have not reduced significantly in recent years and exceedance of the objectives is still evident across the 3 AQMAs. The AWPR will have a positive effect on air quality in these areas, but without the implementation of further measures compliance with the objectives in the near future is unlikely. The Council will need to continue to promote sustainable travel and raise awareness through the implementation of the AQAP, however greater consideration of major policies and potential infrastructure measures is required if compliance is to be achieved. It is also important air quality is considered along side other environmental policies and strategies such as climate change, energy efficiency and noise management to ensure that, where possible, policies are adopted that will benefit all areas of the environment.