

**Manchester City Council
Report for Information**

Report to: Neighbourhoods and Environment Scrutiny Committee – 6
September 2017

Subject: UK Plan for tackling roadside nitrogen dioxide concentrations

Report of: Deputy Chief Executive, People, Policy and Reform

Summary

The UK currently meets the statutory air quality standards for all air pollutants with the exception of nitrogen dioxide (NO₂). NO₂ pollution comes primarily from the combustion of fossil fuels such as in fuel for motor vehicles and particularly diesel powered vehicles. As a result, many parts of the country, particularly urban areas and the motorway network, exceed statutory NO₂ limit values and are forecast to continue to do so for a number of years to come without further action.

The *UK plan for tackling roadside nitrogen dioxide concentrations* was published on the 26th of July 2017. The plan was produced in response to a ruling of the Supreme Court on the 29th April 2015, which ordered the Government to produce plans to reduce NO₂ pollution to legal levels as quickly as possible, following a case brought by environmental charity Client Earth.

This paper summarises the published plan.

Recommendations

Neighbourhoods and Environment Scrutiny Committee are asked to note and comment on the report and the potential implications for the city.

Wards Affected: All

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Background documents (available for public inspection):

The following documents disclose important facts on which the report is based and have been relied upon in preparing the report. Copies of the background documents are available up to 4 years after the date of the meeting. If you would like a copy please contact one of the contact officers above.

- UK plan for tackling roadside nitrogen dioxide concentrations (July 2017)
- Improving air quality: national plan for tackling nitrogen dioxide in our towns and cities (May 2017)
- Improving air quality in the UK: Tackling nitrogen dioxide in our towns and cities (December 2015)
- Air Quality (Standards) Regulations 2010

1.0 Introduction

- 1.1 The Air Quality (Standards) Regulations 2010 transpose into English law the requirements of European Union (EU) Directives on ambient air quality and thereby set the current air quality standards to be met. These limit values reflect World Health Organization (WHO) air quality guidelines. In 2015, 37 of the 43 zones which the country is divided into for air quality purposes exceeded the annual mean concentration levels of nitrogen dioxide (NO₂) (40µg/m³) including the Greater Manchester Urban Area (which includes parts of Rossendale and Cheshire East). London has the greatest levels of pollution and also exceeds the hourly mean concentration levels of NO₂ of 200µg/m³ more than the permitted 18 times a calendar year¹. EU countries were required to meet these limits by 1 January 2010; the UK was granted a limited extension for some areas, but this has now expired, meaning that no exemptions to the legal limits currently exist.
- 1.2 The EU Directives and consequent UK Regulations, exist to protect human health, and evidence from the Committee on the Medical Effects of Air Pollutants (COMEAP) has identified that exposure to NO₂ can be attributed to an estimated 23,500 premature deaths annually in the UK. In addition to the health implications, air pollution also damages the wider environment.
- 1.3 On the 29th April 2015, the Supreme Court ordered the Government to produce plans to reduce NO₂ pollution to legal levels as quickly as possible, following a case brought by environmental charity Client Earth. The Government published its initial plans to improve air quality in December 2015 and the substantive element was that five areas² were required to introduce charging Clean Air Zones (CAZs³), in addition to the plans for an Ultra-Low Emission Zone (ULEZ) being introduced in central London. In November 2016 these plans were ruled to be inadequate by the High Court which ordered the Government to produce new plans to address the exceedances in as short a time as possible.
- 1.4 The Government accepted this ruling, but subsequently attempted to delay the publication due to the upcoming general election. Client Earth again challenged the Government over this delay, and the High Court again ruled against the Government; as a result plans were published for consultation on the 5th May 2017. After reviewing the draft plans, Client Earth once again challenged the Government over whether the plans met the requirements of the original court ruling, to address NO₂ exceedances in as short a time as possible. This time the High Court ruled in favour of the Government, dismissing the challenge on the grounds that the plans were draft for

¹ A small stretch of road in South Wales also exceeds the hourly mean value

² Derby, Nottingham, Leeds, Birmingham and Southampton

³ A CAZ is an area where targeted action to improve air quality is to be taken; CAZs can be 'charging' or 'non-charging', with a charging CAZ requiring certain types of vehicles to achieve certain emission standards or pay a charge to enter the CAZ area. A Class A CAZ applies to buses, coaches and taxis; a Class B CAZ, would also apply to Heavy Goods Vehicles (HGVs); a Class C CAZ, would also apply to Light Goods Vehicles (LGVs); whilst a Class D CAZ (equivalent to the ULEZ proposed for London) would also apply to cars and motorcycles/mopeds.

consultation and therefore subject to change. The final NO₂ plans were published on the 26th July 2017, and it is these plans that are considered by this report.

2.0 UK plan for tackling roadside nitrogen dioxide concentrations

- 2.1 The structure and content of the plan is broadly the same as the May 2017 consultation draft, augmented to some extent with new initiatives and legislation. Some initiatives are beyond the scope of the 2015 Court ruling, but have been proposed to improve overall air quality and to address the harm to health and the natural environment, and the associated economic costs. In particular, the announcement of the Government's intention to produce a new Clean Air Strategy in 2018, addressing not just pollution from nitrogen oxides (including NO₂), but also from particulate matter, sulphur dioxide, non-methane volatile organic compounds and ammonia. The plan also announces the Government's intention to ban the sale of all new petrol and diesel vehicles from 2040.
- 2.2 The Government proposes additional⁴ actions to be undertaken to address the specific issue of NO₂ pollution, the most significant of which is to require certain local authorities, those which are forecast to have the greatest exceedance problems over the next 3 – 4 years, to prepare and implement plans to achieve statutory NO₂ limit values in their areas within the shortest possible time. 22 local authorities, of which 7 are in Greater Manchester⁵, are required to produce local action plans containing measures to address the NO₂ problem in their area as quickly as possible; draft plans must be produced by March 2018 and final plans – requiring Government approval – by December 2018. Manchester City Council is one of the local authorities affected by this requirement.
- 2.3 Government has stated that local action plans will only be approved (and thereby be eligible for Government funding) if:
- a) They reduce NO₂ levels as quickly as possible;
 - b) If the effects on local communities have been assessed and there are no unintended consequences;
 - c) If funding requests in the plans can support demonstrable value for money; and,
 - d) If local evidence, modelling and analysis has been used to improve on the analysis at national level.
- 2.4 The Government also intends to make available a £255 million implementation fund to local authorities to prepare action plans and deliver targeted action to improve air quality, of which £40 million will be available immediately⁶.

⁴ Not all of the additional actions are 'new' e.g. previously announced funding for low emission vehicles in the 2016 Autumn Statement.

⁵ Bolton, Bury, Manchester, Salford, Stockport, Tameside and Trafford

⁶ As Greater Manchester has already received funding to undertake a CAZ Feasibility Study, the funding available may not be as extensive as for other areas.

- 2.5 As referred to in paragraph 1.3 (above) the five previously mandated local authorities⁷, together with London⁸, are already progressing work on charging CAZs of different classes; Nottingham, Derby, Southampton, Leeds and Birmingham are the local authorities affected. London's ULEZ is the equivalent to a Class D CAZ (see footnote 3 above) and would include cars and motorcycles / mopeds in addition to buses, coaches, taxis, light and heavy goods vehicles. The plan sets out national standards that vehicles need to meet if they are to be exempted from a charge in a Clean Air Zone. The required standards for vehicles within charging CAZs are Euro VI / 6 for all diesel vehicles, whilst for petrol cars and vans they are Euro 4 and for motorcycles Euro 3; electric or hydrogen powered vehicles would also be exempt from charges.
- 2.6 The Government has identified, in the accompanying Technical Report, that charging CAZs are the measure that it is able to model nationally, which will achieve the statutory NO₂ limit values in the fastest time. A charging CAZ is intended to encourage more polluting vehicles to stay outside of a CAZ, thereby improving air quality within it; the wider the scope of vehicles that the CAZ would apply to, the greater the reduction in emissions. People would need to buy a charge-exempt vehicle (with low levels of emissions) or choose an alternative transport mode, in order to travel within a charging CAZ and avoid paying the charge. The Government expects that it would take a CAZ up to three years to become operational. However, given the potential impacts on individuals and businesses, the Government states that it would prefer alternative measures to a charging CAZ to be used, providing that these are at least as quick and effective at reducing NO₂ levels as a charging CAZ and can be delivered within the same cost envelope. The Plan also states that over time all roads in the UK will achieve the statutory limit values due to the upgrading of the national vehicle fleet to cleaner models. A Charging Clean Air Zone would therefore be expected to be removed as soon as legal compliance is achieved without the need for the zone.
- 2.7 The Government's modelling of charging CAZs is explained in the accompanying Technical Report under Annex F. The explanation of the class of CAZ used is *'The class of CAZ that is modelled is determined by modelling the effects of all classes of CAZ for each area to find the lowest category of CAZ that is needed to bring about compliance in the shortest possible time.'*, although it is not clear what this class is. Understanding the CAZ class used in the Government modelling for Manchester / Greater Manchester will be important in order to be able to consider alternative measures.
- 2.8 It is worth noting that the Government does not propose a diesel scrappage scheme in its plan, which was considered in the May 2017 Technical Report accompanying the draft plan. The report concluded that the overall cost of a national scrappage scheme would be high, and that its benefits over a 10-year appraisal period - in comparison to doing nothing - would be small, certainly in comparison to other measures. The Government is proposing to

⁷ Southampton now includes part of the New Forest.

⁸ The Greater London Authority rather than the 32 London Boroughs and the City of London.

conduct a further public consultation on diesel scrappage schemes in summer 2017 (which is mentioned in the plan), to see if measures to improve the benefits and reduce / mitigate the costs can be found. It is worth noting that a number of vehicle manufacturers have recently introduced their own financial incentives to encourage car owners to exchange their older cars for newer, less polluting models.

3.0 Issues for the City and Greater Manchester

- 3.1 The Government's plan has been produced specifically to address the issue of the UK's exceedance of statutory nitrogen dioxide limit values. Wider air quality issues, such as pollution from particulate matter – such as PM2.5 and PM10 – are not directly addressed by this plan, although will be covered by the Government's proposed 2018 wider Clean Air Strategy.
- 3.2 There is currently work still to do to better understand the modelling approach that underpins the Plan. There is also a lack of guidance as to what the specified local authorities, including those in Greater Manchester are required to produce by March 2018 and a lack of clarity over the funding for the preparation and implementation of these measures. Officers will continue to discuss these matters with the lead Government Department (the Department for the Environment, Food and Rural Affairs - DEFRA), alongside colleagues from the TfGM and the other affected Greater Manchester districts in order to meet the requirements of the plan and improve air quality.
- 3.3 In terms of addressing NO₂ exceedances, the Government has indicated that it has undertaken research into the most effective means of complying with statutory air quality limit values as quickly as possible. This work has led them to conclude that charging CAZs are the most effective means of making rapid improvements. However, instead of mandating additional local authorities to introduce charging CAZs, as was done in the 2015 plan for Birmingham, Leeds, Derby, Nottingham and Southampton, the Government has determined that a number of local authorities, including those in Greater Manchester, be required to undertake further research in order to prepare local action plans to see whether there are equally effective alternatives to charging CAZs. The Government states that where equally effective alternatives do exist then these should be preferred over charging CAZs.
- 3.4 Greater Manchester has recently agreed and published an Air Quality Action Plan / Low Emission Strategy (GM AQAP/LES) which seeks both to tackle problems of poor air quality and to tackle carbon emissions. This will form the basis from which to develop a Greater Manchester response to the Government's Plan. Further detailed modelling at the local level will be needed to understand what further measures, over and above those already committed to, will be needed for Greater Manchester to achieve compliance within the shortest time while at the same time addressing the need to reduce levels of other pollutants and greenhouse gas emissions. This will require a robust evidence base and a detailed assessment of DEFRA's modelling. The intention will be to develop a package of measures which are directed not only towards compliance with the DEFRA (and legal) requirements but which can also bring

about reductions in all air pollutants and their consequent impacts on health across the conurbation. Greater Manchester authorities would agree with Government that all alternatives to charging CAZs need to be fully explored given their likely costs of implementation and potential economic impacts. Authorities will also want to ensure that adequate Government funding is made available to support the package of measures that needs to be introduced.

- 3.5 Local action plans will be approved in December 2018, according to the Government's timetable, at which time the actions they contain will begin to be implemented in order to address the NO₂ exceedances. In addition, if local authorities are unable to find measures that are as effective as charging CAZs, then they would have the responsibility for introducing this potentially unpopular measure, rather than the Government.
- 3.6 As mentioned above there will of course be a natural renewal of vehicles over time, and it is worth noting that most of the local authorities (and all of the Greater Manchester authorities) required to produce draft local action plans by March 2018 have, according to DEFRA's modelling, significantly lower levels of NO₂ pollution than the five previously mandated areas and London, which suggests that any necessary restrictions to achieve compliance may only need to impact on a narrower range of vehicles and be time limited.
- 3.7 The March 2018 deadline that the Government have set local authorities to produce a draft local action plan is very tight for such a significant piece of work, and is further constrained due to the absence of any current national guidance for the plans' preparation. DEFRA have indicated, in discussions with TfGM, that this guidance should be made available during October 2017. The 7 affected Greater Manchester districts are though perhaps better positioned than many local authorities, with TfGM having secured funds for a feasibility study to explore the potential for a Clean Air Zone in different parts of GM. This work is largely complete should have some value to the local action plan preparation.
- 3.8 The maps contained in the published plan that show localised forecast exceedances in 2021 are included in the Appendix to this report. It is unclear from the maps precisely which streets are forecast to be in exceedance in Manchester / GM in 2021; at least one of the streets currently identified is part of the motorway network (despite these not featuring in the Plan), and would therefore be addressed by Highways England rather than local authorities.
- 3.9 The preparation of local plans and their implementation will become a legal requirement for the specified local authorities; significantly, this seems to place the responsibility for addressing the NO₂ pollution exceedances with local authorities (and the devolved governments of Wales, Scotland and Northern Ireland) rather than with the Government, even though it is the Government that was ordered to take action by the Courts. In this respect it is disappointing that the plan allows more time for the development of a clear national position while requiring local authorities to develop their local plans in the absence of a clear national policy framework.

4.0 Next Steps

- 4.1 Officers are continuing to work with TfGM and the other specified GM districts to fully understand the Government's plan and its implications for both Manchester and Greater Manchester. Discussions between TfGM and DEFRA regarding a number of issues (including the lack of guidance and clarity for what local authorities are required to produce, the funding for this and technical issues referred to in the report) are ongoing, and will help shape the eventual response.
- 4.2 The preparation and implementation of a local action plan in Manchester will be a key decision requiring Executive approval. Neighbourhoods and Environment Scrutiny Committee will be regularly updated as work progresses.

Appendix – UK Plan for tackling roadside nitrogen dioxide concentrations – selected maps

