

EXECUTIVE BOARD – 31 July 2017

Subject:	Local Plan to Improve Air Quality In Nottingham
Corporate Director(s)/Director(s):	David Bishop, Corporate Director of Development Zahur Khan, Director of Traffic and Transport Andrew Errington, Director Community Protection
Portfolio Holder(s):	Cllr Sally Longford, Portfolio Holder for Energy and Environment
Report author and contact details:	Chris Carter Head of Transport Strategy 0115 876 3940 Chris.Carter@Nottinghamcity.gov.uk Richard Taylor, Environmental Health and Safer Places Manager Richard.taylor@nottinghamcity.gov.uk 0115 8761458
Subject to call-in: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Key Decision: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Criteria for Key Decision:	
(a) <input type="checkbox"/> Expenditure <input type="checkbox"/> Income <input type="checkbox"/> Savings of £1,000,000 or more taking account of the overall impact of the decision	
and/or	
(b) Significant impact on communities living or working in two or more wards in the City <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Type of expenditure: Revenue <input type="checkbox"/> Capital <input type="checkbox"/>	
Total value of the decision:	
Wards affected: All	
Date of consultation with Portfolio Holder(s): 2 nd July 2018	
Relevant Council Plan Key Theme:	
Strategic Regeneration and Development	<input checked="" type="checkbox"/>
Schools	<input type="checkbox"/>
Planning and Housing	<input type="checkbox"/>
Community Services	<input type="checkbox"/>
Energy, Sustainability and Customer	<input type="checkbox"/>
Jobs, Growth and Transport	<input checked="" type="checkbox"/>
Adults, Health and Community Sector	<input type="checkbox"/>
Children, Early Intervention and Early Years	<input type="checkbox"/>
Leisure and Culture	<input type="checkbox"/>
Resources and Neighbourhood Regeneration	<input type="checkbox"/>
Summary of issues (including benefits to citizens/service users):	
<p>Air pollution is associated with a number of adverse health impacts and a contributing factor in the onset of heart disease and cancer, and it particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also a strong correlation with equalities issues, because areas with poor air quality are often in less affluent areas. Thus actions that reduce concentrations of nitrogen dioxide (NO₂) in ambient air both protect and improve the health and wellbeing of citizens, improves the amenity of the city, and reduces resource demands on the NHS.</p> <p>In July 2017, DEFRA identified a number of local authorities, Nottingham City Council included, as having locations where concentrations of NO₂ are above the average annual legal limit of 40µgm⁻³. The modelling also predicts that NO₂ levels will, unless additional interventions are implemented, continue to exceed the legal limit until 2023.</p> <p>The Council is under Ministerial Direction to produce a local plan that will show how it will reduce concentrations of NO₂ to within the legal limits as soon as possible. The final version of the local Plan is required to be submitted to DEFRA in September 2018.</p>	

The Council has for many years been promoting sustainable transport with the aim of supporting economic growth, reducing congestion and improving air quality. Significant investment has been made to improve public transport and the local cycle network, together with incentivising the use of cleaner vehicles. These measures have already gone a long way to achieve a cleaner city, but further measures are needed to reduce levels of NO₂ to within legal limits.

The Council successfully bid for funding to retrofit 180 vehicles in the Nottingham City Transport (NCT) fleet with cleaner exhaust technology. The Council's Taxi and Private Hire Strategy require all Hackney Carriage licensed by the Council to be Euro VI compliant by 2020. In addition the Council is also modernising its fleet to Ultra Low Emission Vehicles (ULEV's). The modelling predicts that with these measures in place, air quality in Nottingham will be compliant with legal limits by 2020.

In order to bring forward compliance, it is also proposed to support taxi drivers to adopt ULEV's through licensing initiatives and an expanded 'try before you buy' leasing scheme.

To align the outcome of local modelling with existing local air quality monitoring it is also proposed to vary one of the existing Air Quality Management Areas, expanding it to cover the whole of the Nottingham City Council's administrative area, and at the same time to seek legal powers to tackle engine idling.

Public consultation is required on the draft local plan prior to its submission to DEFRA. A four week consultation is proposed during August/September.

Exempt information:

None.

Recommendation(s):

- 1) To approve, in principle, the proposed local plan measures aimed at improving Air Quality in the City of Nottingham.
- 2) To approve the public consultation on the local plan during August and early September 2018 for a minimum four week period.
- 3) To delegate authority to the Corporate Director of Development and Growth to approve the submission of the final local plan to DEFRA by the 15th September 2018.
- 4) To agree in principle to the variation to Air Quality Management Area No.2 to the whole City administrative area.
- 5) To agree in principle to seek legal authority to enforce vehicle 'anti-idling' legislation in the newly varied AQMA No.2.

1 REASONS FOR RECOMMENDATIONS

Air Quality Modelling

- 1.1 Following the release of the 'UK Plan for Tackling Roadside Nitrogen Dioxide Emissions' by DEFRA and the Department for Transport in 2017, the Council has been developing its own local plan aimed at introducing measures to achieve compliance with the legal limit for NO₂ emissions in the shortest possible time but before 2020 at the latest. One measure that has been under consideration was the introduction of a Clean Air Zone although DEFRA guidance stated that such a Zone should be considered only as a last resort.
- 1.2 The 2017 Plan had included DEFRA's analysis that showed the areas in Nottingham with the highest concentration of NO₂ were on the ring road and at Crown Island. However, local monitoring undertaken by the Council through the Local Air Quality Management (LAQM) process suggested that the highest

concentrations are within the City Centre, and in particular around Canning Circus, Maid Marian Way and London Road.

- 1.3 To gain a fuller understanding of air quality levels across the city, detailed traffic and air quality modelling was commissioned. In consultation with DEFRA, it was agreed that these models would be built using locally sourced data, as it was the most detailed and comprehensive available. The results of the modelling show a strong correlation with the LAQM monitoring results, with levels of air quality predicted to exceed legal limits in a number of city centre locations in 2020 if no action was taken (Appendix 1).
- 1.4 The Council has for many years been promoting sustainable transport with the aim of supporting economic growth, reducing congestion and improving air quality. Significant investment has been made to improve public transport, including the tram network, the electric and gas powered bus fleet together with integrated ticketing and bus information systems, supported with local funding through the Workplace Parking Levy. The Council is also implementing a range of measures to incentivise the use of cleaner vehicles, and has invested heavily in its cycle network in recent years. These measures have already gone a long way to creating a cleaner city, but it is recognised that further measures are needed to reduce levels of NO₂ to meet legal limits.
- 1.5 The Council was successful with a bid for £2.7million in January 2018 from the DEFRA Clean Bus Fund to enable over 180 vehicles within the NCT fleet to be retrofitted with exhaust technology to meet Euro VI emission standards. This work is now underway and will be completed in mid-2019. In addition, Nottinghamshire and Derby are working with Trent Barton to retrofit their fleet of buses. The Regulatory and Appeals Committee has implemented the proposals contained in the Council's Taxi and Private Hire Vehicle Strategy 2017 – 2020 to require all hackney carriage vehicles licenced by the Council to be Euro 6 compliant by 2020. £1.5million has been secured through DEFRA's Early Measures Fund to convert a number of the Council's specialist heavy vehicles to ULEV.
- 1.6 Further modelling of air quality was undertaken taking into account the bus retrofit and Taxi and Private Hire Strategy, and the results showed that these measures would have a significant effect in reducing emissions and that all of Nottingham would be brought into compliance with the Directive by 2020 (Appendix 2). This means that it is not necessary to introduce a Clean Air Zone to achieve the required legal limits in 2020.

Proposed variation of Air Quality Management Area (AQMA) No. 2.

- 1.7 The Environment Act 1995 requires local authorities to assess the air quality in their areas and, where this predicts that air pollution levels will exceed a relevant air quality objective (AQO), Section 83 requires the Local Authority to declare an AQMA, and work towards meeting the AQO and this is being reviewed in parallel to preparing the local plan.
- 1.8 The City Council's own air quality monitoring and modelling in 2002 and 2010 identified two areas where NO₂ levels were above the legal limits (City Centre north, east and south (AQMA No.2) and Dunkirk (AQMA No. 3)) and accordingly these have been designated as AQMA's.

- 1.9 2017's air quality monitoring data reported in the Council's Annual Status Report (2018) identified a number of locations inside, and outside the existing AQMA where the NO₂ annual mean air quality objective was exceeded. (Appendix 3).
- 1.10 The detailed air quality modelling recently undertaken predicted that without further action, NO₂ concentrations at some locations in the Nottingham City area will continue to exceed the annual mean AQO until the effects in particular of the bus, taxi and fleet measures identified in paragraph 1.5 above are realised.
- 1.11 Under the Environment Act 1995 Section 83 it is a legal requirement to declare a new, or vary an existing, AQMA to include the new locations, where NO₂ levels are above legal limits.
- 1.12 In addition to the above, the Council is also seeking to address a number of specific complaints that, in a number of locations, (particularly outside schools and at taxi ranks) vehicles regularly wait with their engines idling, contributing to relatively high levels of particulates and NO₂ emissions in those locations. This behaviour contributes to ambient pollution levels across the whole city and wider conurbation.
- 1.13 The Environment Act 1995 allows local authorities to seek additional legal powers from the Secretary of State to enforce anti-idling legislation to discourage engine idling within AQMA's and issue Fixed Penalty Notices to drivers that do not switch off engines when requested. It is proposed to vary an existing AQMA (AQMA No.2) and extend it to cover the entire City administrative area.
- 1.14 It is therefore proposed to submit separate proposals as part of the Local Air Quality Management Annual Status Report process;
- (i) To vary AQMA No.2 (City Centre). Extending it to encompass the whole of the City's administrative area, and include those areas where monitoring shows the NO₂ annual mean Air Quality Objective (of 40 µgm⁻³) was, or was probably, exceeded in 2017, and detailed air quality modelling predicts it is likely to be exceeded in 2018 and beyond (Appendix 4).
 - (ii) To revoke AQMA No.3 (Beeston Road, Dunkirk), as the area will be within the area of the amended AQMA No.2.
 - (iii) To seek authority from the Secretary of State to be a 'designated local authority' under The Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002.
- 1.15 It should be noted that AQMA's must be revoked when a period of monitoring results (3 to 5 years to account for unusual weather years) indicate that air pollution levels no longer exceed relevant objectives. Alternative powers to enforce anti-idling restrictions will be considered when monitoring demonstrates NO₂ levels consistently meet legal requirements and the AQMA must be revoked.

Plan to improve Air Quality

- 1.16 The local plan to be submitted to DEFRA in September 2018 will include the following measures:

- Confirm delivery of retrofitting programme for NCT's older buses with clean exhaust technology to meet Euro VI standards.
- Delivery of Taxi and Private Hire Vehicle Strategy age policy to reduce the age of the hackney carriage and private hire fleet supported with the introduction of an incentives package to shift the taxi fleet towards low emission vehicles. A bid for funding to help with this transition will be included in the plan submission.
- Delivery of the City's own fleet renewal programme to purchase new electric vehicles in its specialist/heavy fleet.

1.17 The Council's ambition is to promote initiatives to improve air quality, allowing citizens to be able to live healthier lives, and it is looking to go beyond the minimum requirements of the Directive and to introduce further measures. In addition to the anti-idling measures proposed in the revised AQMA, the Council is investigating revisions to the existing Clear Zone in the city centre, which would introduce emissions criteria for various classes of vehicle, including a taxi permit scheme. A further report will be brought on any proposals to a future meeting.

Consultation

1.18 An initial survey eliciting views on the importance of tackling air quality issues was carried out in April 2018. This served as an initial engagement and communications exercise and there was broad support for prioritising measures to improve air quality.

1.19 Consultation on the proposed plan changes, proposed variation of the AQMA and intention to seek powers to enforce anti-idling legislation, will take place in August and early September for a minimum of a four week period. This will provide citizens with the opportunity to comment on the proposals and for these to be taken into account prior to submission to DEFRA. A wide range of consultation materials are being prepared to include printed leaflets, digital marketing, information on websites, press releases, social media and other targeted communication with key stakeholders, including;

- Public transport operators.
- Taxi and private hire operators.
- Citizens of the city and commuters from outside.
- Chamber of Commerce, Federation of Small Business and local businesses.
- Environmental interest groups.
- Industry bodies (such as Freight Transport and Road Haulage associations).
- Elected representatives.
- Public sector bodies (such as NHS, Highways England and neighbouring local authorities).
- D2N2 Local Enterprise Partnership.

2 BACKGROUND

2.1 Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equality issues, because areas with poor air quality are also often the less affluent areas. The health impacts of 'air pollution' are now often

reported as 40,000 deaths brought forward in the UK each year. In Nottingham, 6.4% of all adult mortality was attributable to long term exposure to human made particulate pollution in 2010.

- 2.2 The Local Air Quality Management (LAQM) process places an obligation on all local authorities to regularly review and assess air quality in their areas, and to determine whether or not the air quality objectives are likely to be achieved. Where an exceedance is considered likely the Local Authority must declare an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) setting out the measures it intends to put in place in pursuit of the objectives. Nottingham currently has two AQMA's, covering the City Centre (north, east and south) and Dunkirk.
- 2.3 In December 2015 the Department for Environment Food and Rural Affairs (DEFRA) released draft plans to improve air quality in the UK *"Tackling Nitrogen Dioxide in our towns and cities"*. This document contained the results of DEFRA's analysis, which concluded that NO₂ concentrations in six UK cities, including Nottingham, were above the legal levels set by the EU First Daughter Directive on air quality (99/30/EC) and the UK Air Quality Strategy 2000. The document concluded that modelled levels of NO₂ along the ring road and around Crown Island would exceed the legal limit of 40µg/m³ in 2020.
- 2.4 The document identified road traffic as a major source of NO₂ and as a result, DEFRA asked the Council to prepare a plan aimed at reducing the level of NO₂ in the city. The plan should consider the implementation of a Clean Air Zone, which would charge a fee for the most polluting vehicles to enter the Zone. The requirement was that the concentrations of NO₂ would be brought into compliance with the Directive by 2020.
- 2.5 The Government's 2015 Plan was successfully challenged in the High Court by Client Earth and in October 2016, the High Court instructed DEFRA produce a revised plan.
- 2.6 In May 2017 DEFRA released its Clean Air Zone Framework. The Framework outlined four classes of Clean Air Zone, each of which would place a charge on non-compliant vehicles of different types entering the defined Zone (i.e. Euro 6/VI or higher for Diesel or Euro 4/IV, or higher for petrol). Affected vehicle types were buses, taxis, HGV's, light vans and private motor cars.
- 2.7 In July 2017 DEFRA and DfT jointly released the "UK Plan for Tackling Roadside Nitrogen Dioxide Emissions". This Plan again named Nottingham and a number of other Local Authorities areas as having persistently high levels of NO₂. In December 2017, the Secretary of State for Environment directed that the Council produce a local plan, to be submitted by 15th September 2018 which must show how compliance with the Air Quality Directive would be reached in the soonest possible timeframe but before 2020 at the latest. DEFRA strongly advised that when preparing their plans, Local Authorities should consider all measures aimed at achieving compliance with the Directive. However, Clean Air Zones were only to be considered if other measures were insufficient to achieve compliance.

3 OTHER OPTIONS CONSIDERED IN MAKING RECOMMENDATIONS

- 3.1 An option for introducing a Class B Clean Air Zone (CAZ) around Nottingham City Centre was considered. However, the air quality modelling identified that levels of

NO2 would be below legal limits in 2020 and beyond, and therefore introducing a CAZ was not required.

4 FINANCE COLLEAGUE COMMENTS (INCLUDING IMPLICATIONS AND VALUE FOR MONEY/VAT)

- 4.1 This decision does not commit the Council to capital expenditure and no amendment to the Capital Programme is required. Following the consultation and if the outcome of the submission to DEFRA is successful a further decision will be required to amend the Capital Programme accordingly.

Tom Straw, Senior Accountant (Capital Programmes) – 28th June 2018

5 LEGAL AND PROCUREMENT COLLEAGUE COMMENTS (INCLUDING RISK MANAGEMENT ISSUES, AND LEGAL, CRIME AND DISORDER ACT AND PROCUREMENT IMPLICATIONS)

- 5.1 As indicated in the body of the report the Council is under a duty to submit a local plan to Defra by 15th September 2018 and the recommendations enable the Council to meet that requirement. It is understood that the proposals contained in this report have been the subject of independent legal advice commissioned by the Director of Traffic and Transport.
- 5.2 The amendment to the Air Quality Management Area is required to follow its own prescribed process, internal authorisation procedure and to be the subject of separate consultation.
- 5.3 As the recommendations relate to approval of the local plan in principle and putting it out to consultation the risk of challenge would appear low at this stage.
- 5.4 The adoption of the local plan and implementation of the various proposals related to it will be subject to the usual public law methods of challenge such as judicial review or any prescribed rights of appeal or objection in relation to the particular course of action.

Ann Barrett, Team Leader, Legal Services, Strategy and Resources. 4 July 2018.

6 STRATEGIC ASSETS & PROPERTY COLLEAGUE COMMENTS (FOR DECISIONS RELATING TO ALL PROPERTY ASSETS AND ASSOCIATED INFRASTRUCTURE)

7 SOCIAL VALUE CONSIDERATIONS

The study will identify measures to improve Air Quality for Citizens. The study will also contain detailed analysis of the social impacts of the proposals, known as distributional impacts.

8 REGARD TO THE NHS CONSTITUTION

8.1 None

9 EQUALITY IMPACT ASSESSMENT (EIA)

9.1 Has the equality impact of the proposals in this report been assessed?

No

An EIA is not required because:

An EIA is not required, as the Plan itself considers equality issues as part of the distributional impacts analysis.

10 LIST OF BACKGROUND PAPERS RELIED UPON IN WRITING THIS REPORT (NOT INCLUDING PUBLISHED DOCUMENTS OR CONFIDENTIAL OR EXEMPT INFORMATION)

10.1 Nottingham Clean Air Zone modelling and Target Determination Report. 2018

11 PUBLISHED DOCUMENTS REFERRED TO IN THIS REPORT

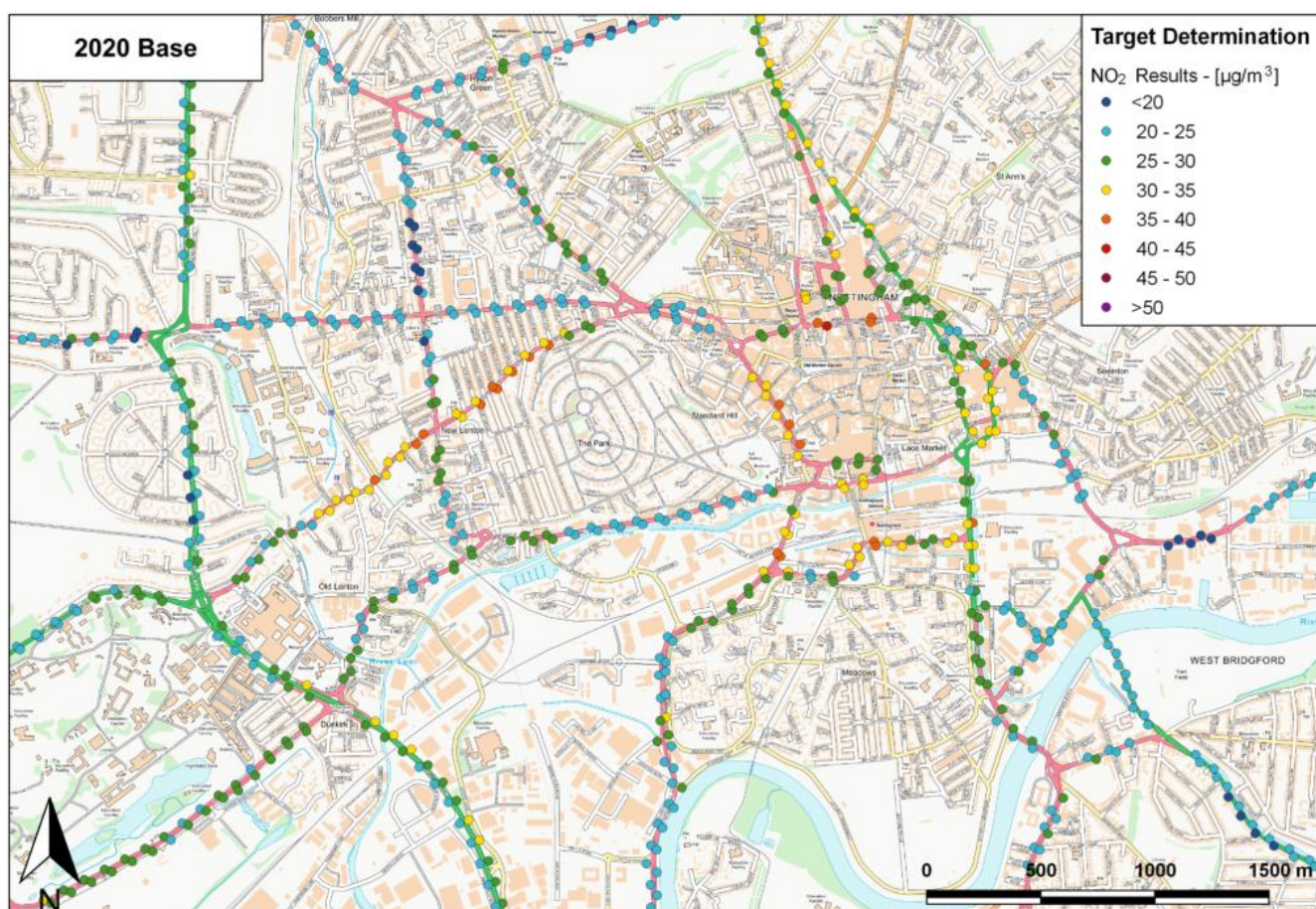
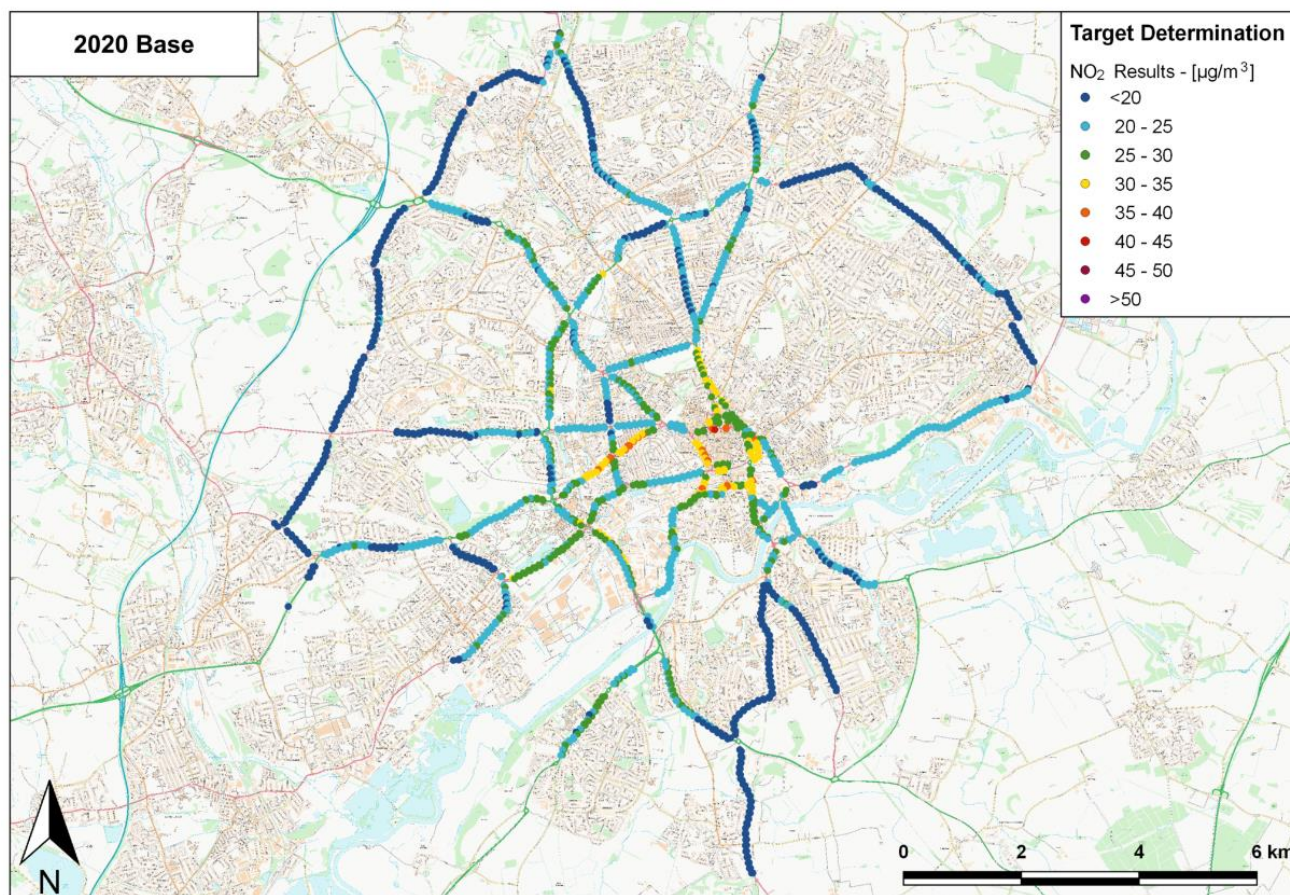
11.1 Tackling Nitrogen Dioxide in our towns and cities. DEFRA December 2015.

11.2 Clean Air Zone Framework, DEFRA May 2017.

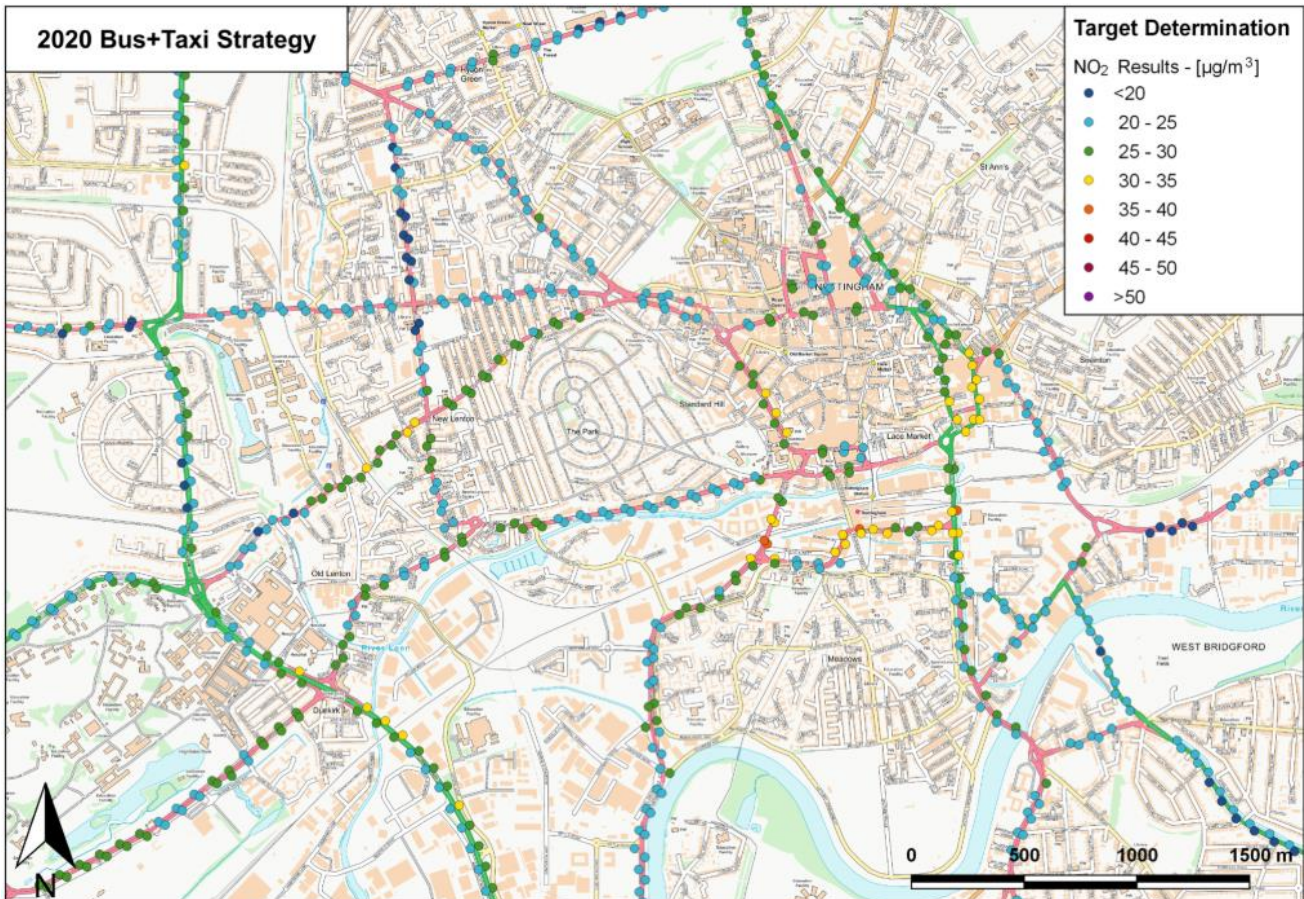
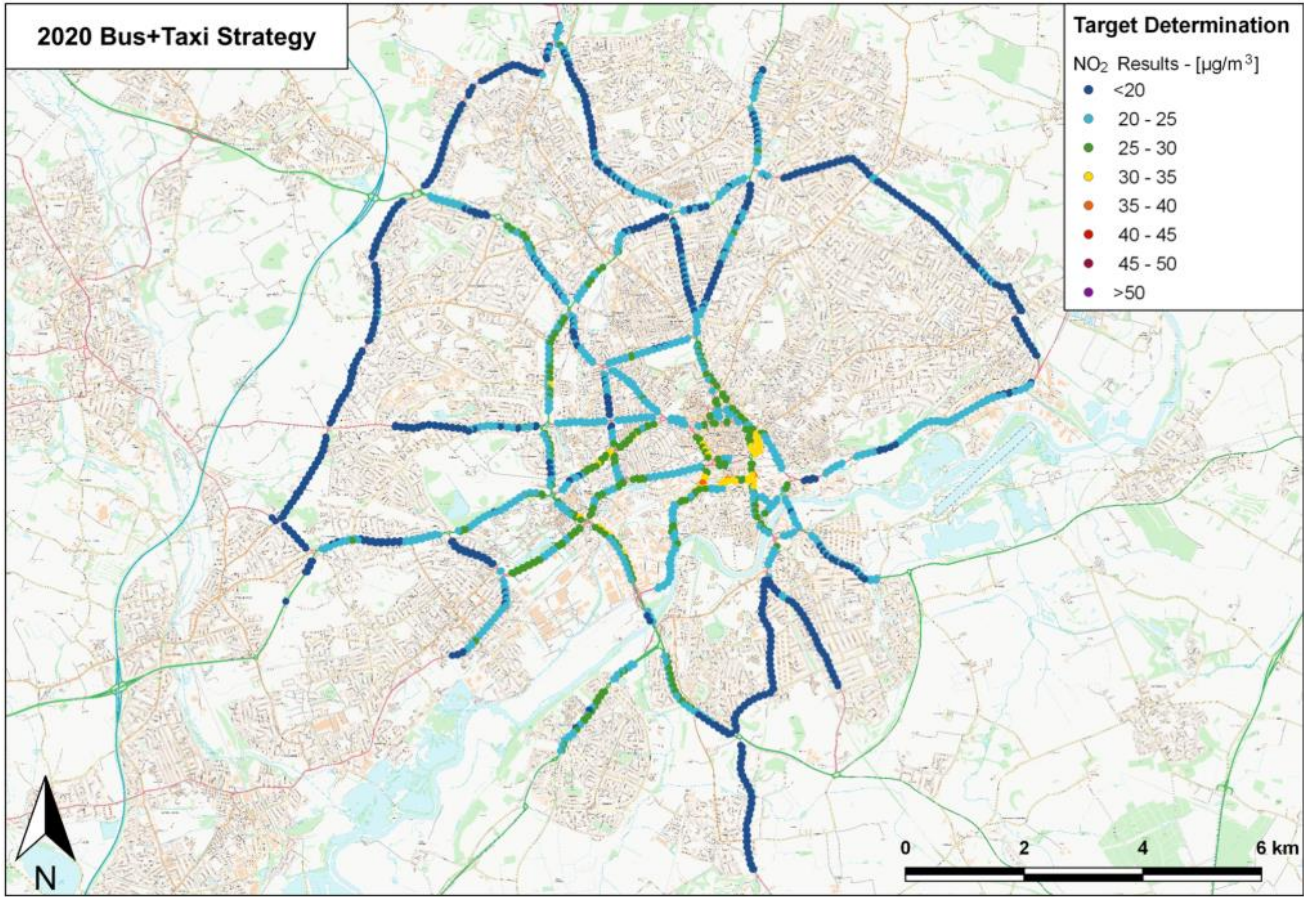
11.3 The UK Plan for tackling roadside Nitrogen Dioxide emissions DEFRA July 2017.

11.4 Nottingham City Council Annual Status Report July 2018.

Appendix 1. 2020 modelled/predicted NO2 concentrations (without additional measures)

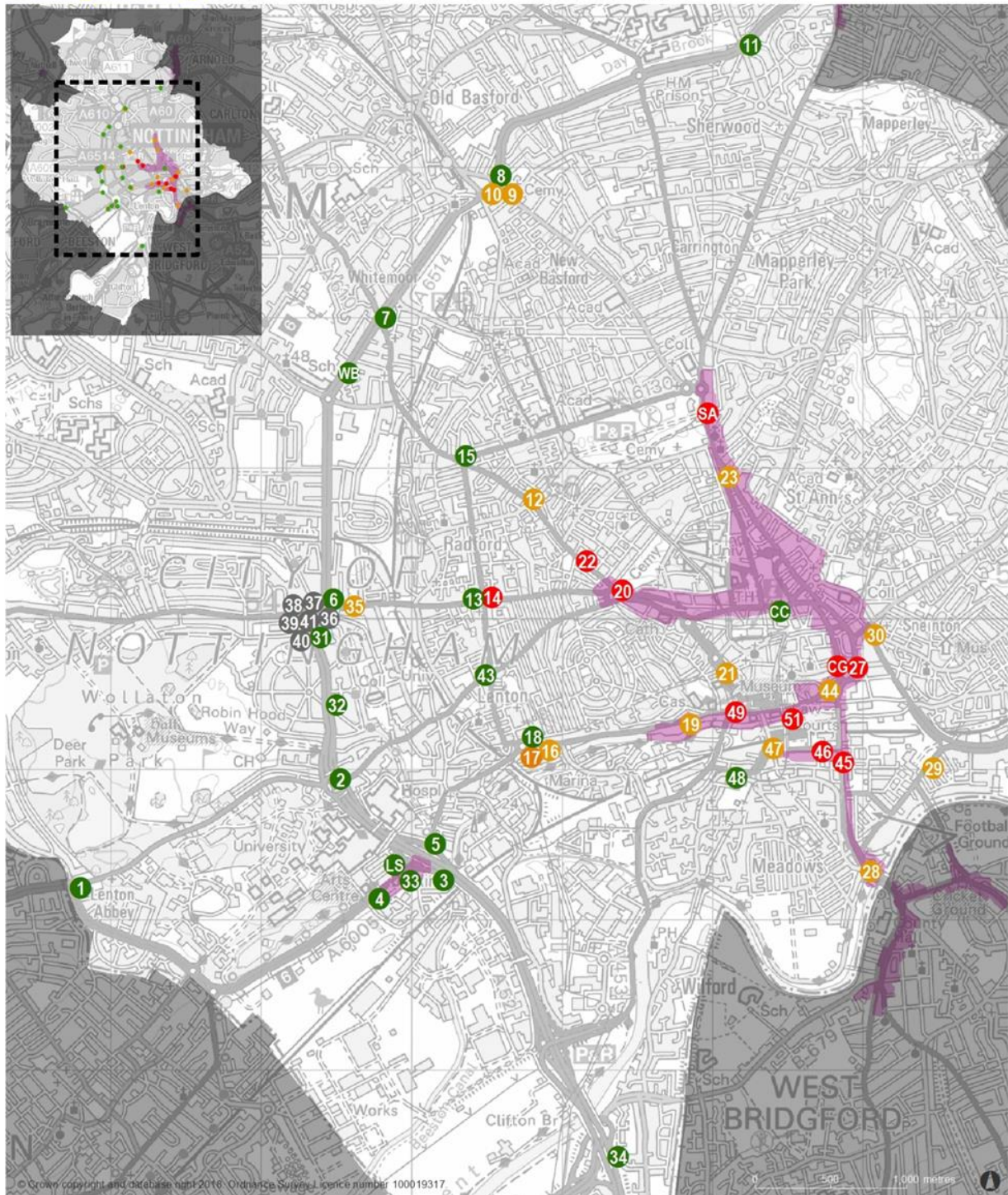


Appendix 2. 2020 modelled/predicted NO2 concentrations (with bus retrofit and Taxi and Private Hire Vehicle Strategy)



Appendix 3: Summary of 2017 monitoring data and historical monitoring data from 2013.

Nottingham City NO₂ Air Quality Objective Monitoring (2013-2017)



Air Quality Monitoring Sites: NO₂ Objective Adherence

- ('SA' & 'CG' real-time analysers) NO₂ Annual Mean Air Quality Objective (AQO) exceeded in 2017
- (Numbered) Diffusion tube bias adjusted levels exceed AQO using either local (1.07) or national (0.89) bias adjustment factor
- Diffusion tube bias adjusted levels exceed AQO using local bias adjustment factor (1.07)
- Diffusion tube bias adjusted levels have not exceeded AQO (2013-2017) using either local or national bias adjustment factor
- 'Non-sensitive' monitoring sites

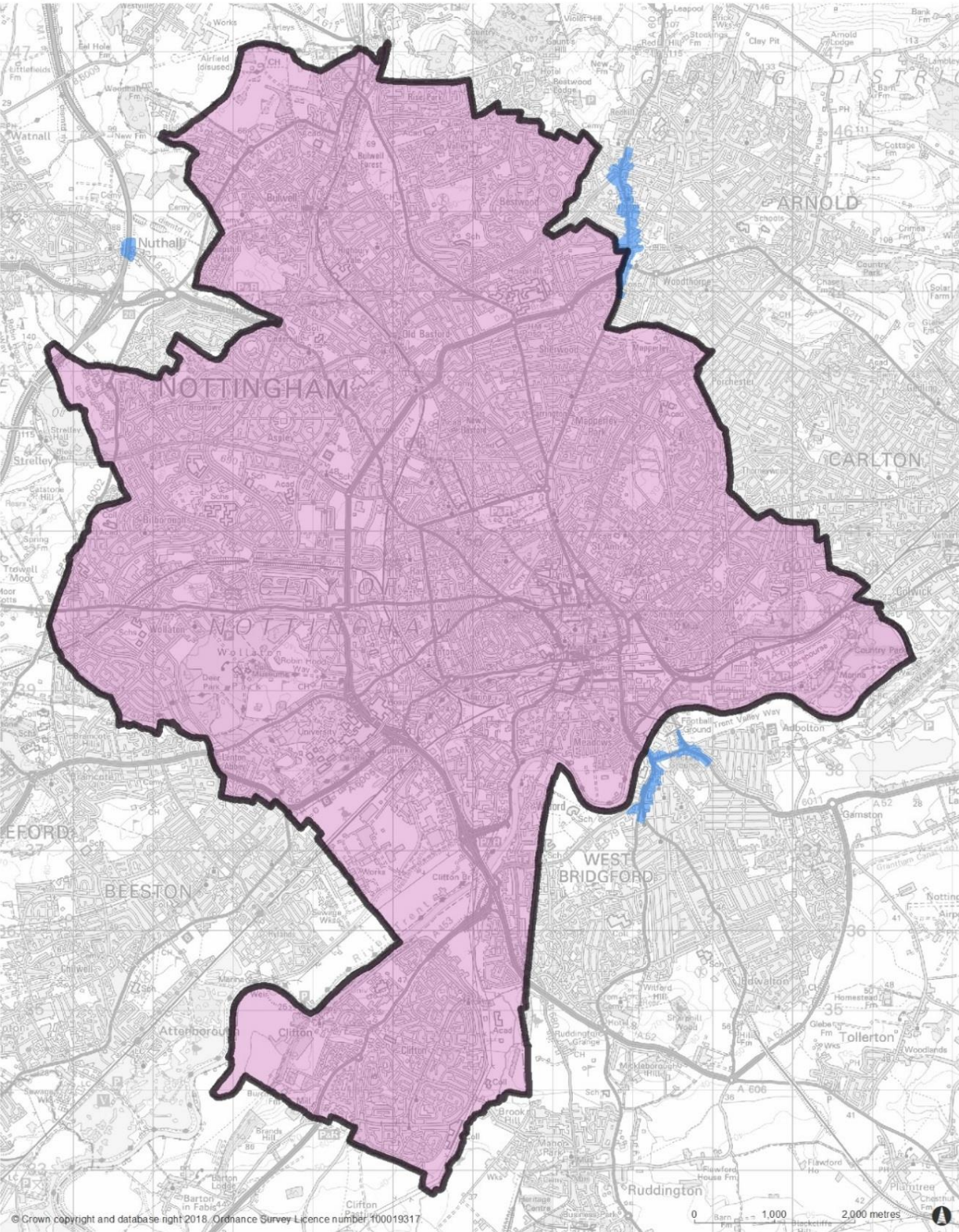
Tubes 24, 25 & 26 co-located at St Andrew's Road ('SA') are not shown on map.
Note that numbers on points relate to site IDs and not NO₂ levels.



Nottingham
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Appendix 4 Proposed varied AQMA No.2 (note AQMA No. 3 revoked).

Proposed Variation of AQMA No.2: Nitrogen Dioxide - City Centre Area (2010)



- Proposed extent of varied AQMA No.2: Nitrogen Dioxide - City Centre Area
- Adjacent local authority AQMAs (Air Quality Management Areas)
- Nottingham City authority boundary



