

TITLE OF REPORT: Air Quality Plan for Gateshead, Newcastle and North Tyneside

REPORT OF: Tony Alder, Acting Strategic Director, Communities and Environment

Purpose of the Report

1. This report outlines a proposed response to the Secretary of State's legal direction dated 27 July 2017 requiring Gateshead, Newcastle and North Tyneside Councils to produce a feasibility study to identify the option which will deliver compliance with legal limits for nitrogen dioxide in the Councils' administrative areas in the shortest possible time. It illustrates the issues faced in developing this study within constrained timescales set by government and recognises that decisions of this magnitude should not be taken without due consideration of the impact on specific and more vulnerable communities. Having undertaken this study jointly with Newcastle City and North Tyneside Councils, approval is sought to commence public consultation across the area on a package of potential measures.

Background

2. Outdoor air pollution is a major risk to human health. Based on national estimates, poor air quality is considered to be responsible for around 360 deaths each year across Gateshead, Newcastle and North Tyneside and around 40,000 across the UK. Related causes of death include circulatory disease, respiratory disease and cancer. As a comparison, there are around 11 deaths per year caused by road traffic collisions across the three local authorities.
3. The most recent UK Plan for tackling roadside Nitrogen Dioxide concentrations identified a number of areas across the country that, based on government modelling, would not be compliant with EU limit values for Nitrogen Dioxide (NO₂) by 2021.
4. As part of the UK Plan, many Councils including Gateshead, Newcastle and North Tyneside, were subject to a Direction (a legal order) dated July 2017 from the Secretary of State to "Undertake, as part of the UK plan for tackling roadside nitrogen dioxide concentrations, a Feasibility Study in accordance with the HM Treasury's Green Book approach, to identify the option which will deliver compliance with legal limits for nitrogen dioxide in the area for which the authority is responsible, in the shortest possible time". The Outline Business Case presented here for approval, is the result of the study.

Proposal

5. Gateshead, Newcastle and North Tyneside authorities have undertaken a joint Feasibility Study in recognition of the complex and interlinked travel patterns in the region. As a whole, the authorities' monitoring and modelling shows that Air Quality is generally below legal limits across the three local authorities, particularly in residential areas. However, there are some areas where air pollution exceeds the

legal limits for nitrogen dioxide. It is important to note that much of the evidence about air quality and its impact on public health makes it clear there is no safe limit for exposure and that other pollutants such as particulate matter also cause significant public health issues. These areas of exceedance are typically in proximity to major roads or in Newcastle City Centre, where there are topographical issues and where there are complex demands made of the city's road network.

6. The modelling shows that the Central Motorway in Newcastle is the most difficult road to bring into compliance. This is a key road for both traffic travelling to Newcastle City Centre and as a through route for traffic acting as part of the Newcastle inner ring road and leading directly to and from the Tyne Bridge. Both Newcastle City Council's policies and those shared with Gateshead Council as part of the Joint Core Strategy have sought to restrict traffic travelling through residential areas and the city centre and to use the Central Motorway instead. Balancing the need to achieve air quality limits in the vicinity of the Central Motorway, with the need for it to continue fulfilling its role as the authorities' preferred route for through traffic, does not lend itself to a simple solution. The authorities have been mindful throughout the process of considering options of the need to avoid simply 'shifting' air quality problems from one location to another. The authorities have sought to ensure the analysis leads us to solutions that do not conflict with existing policy objectives wherever possible.

Clean Air Zones

7. As part of its *UK Plan* the Government has published a framework that sets out the principles for the establishment and maintenance of 'Clean Air Zones' (CAZs) in the UK. CAZs can take the form of 'charging' or 'non-charging' zones. The guidance is clear that any non-charging measures have to be tested against the effectiveness of implementing a charging Clean Air Zone, and that the measure that brings compliance in the shortest possible time is to be preferred. Charging CAZs mean that vehicles which do not comply with emissions requirements and enter a defined zone are charged a set amount by the local authorities. In order to avoid a charge, vehicles must be EURO 4 or later for petrol vehicles (most new car registrations after 01 January 2006) and EURO 6/VI for diesel vehicles (most new car registrations after 01 September 2015). The framework also indicates that there are four different classes of CAZ to consider, as specified by government, defined by reference to the type of vehicles to be subject to charges:

8.

CAZ class	Vehicles included
A	Buses, coaches and taxis
B	As A with the addition of heavy goods vehicles (HGVs)
C	As B with the addition of light goods vehicles (LGVs)
D	As C with the addition of private cars and the option to include motorbikes and mopeds

Developing options addressing government's approach to Clean Air Zones (CAZs)

9. The results of the modelling indicate that no form of charging CAZ would enable areas in Newcastle on the Central Motorway and the approach to Central Station to meet Air Quality limits in 2021. All areas in Gateshead and North Tyneside would be in compliance.
10. The authorities' assessment of the charging CAZs also highlights significant concerns about the impact such measures would have on particular communities. The Integrated Impact Assessment undertaken clearly shows that a CAZ D would be likely to affect a significant number of people but would also be likely to have a disproportionate effect on lower income households and areas of deprivation. Furthermore, it is likely that a CAZ D would have a disproportionate effect upon smaller businesses, including taxi drivers/firms.

Further measures identified locally to improve Air Quality

11. As explained above, having considered the charging CAZ options it was recognised that none of the Charging CAZ options would deliver compliance with EU Limit values by 2021. Having established that, the authorities have re-examined the options to determine which further measures could be delivered and would meet the authorities' aims of fairness, improving health and protecting the economy. The authorities are therefore considering additional and/or alternative measures that would help to accelerate the ability to deliver cleaner air in the shortest time possible and are undertaking additional transport and air quality modelling of a range of options.
12. It is clear that taking action to meet air quality limits requires a complex decision-making process which inevitably involves a number of trade-offs. The authorities' intention throughout the appraisal process has been to find the most appropriate solution for the residents of this area. The additional measures being considered upon which the authorities wish to consult the public are listed below:
 - A Low Emission Zone to ensure a minimum emissions standard (EURO VI/6) for buses, HGVs and taxis in Newcastle City Centre. This would be a smaller area than the area modelled for the CAZ and would be focused on the City Centre with an option to implement a similar LEZ in Gateshead Town Centre;
 - Other means of charging certain road users that would not focus solely on older vehicles and therefore could be seen to be more equitable. By applying to a wider range of vehicles than government's approach this option could also be set at a lower level in order to remain effective. These options include tolls on city centre bridges that could be set at the same level as those for the Tyne Tunnel (£3.40 for HGVs, £1.70 for LGVs / cars). Under such a scenario it would be proposed that public transport (buses and taxis) and ultra low emission vehicles would be exempt from charges. Options such as variable charging (e.g. where charges during peak hours are more than off peak times) will also be considered as part of the consultation;
 - A ban on use of the Central Motorway between the Tyne Bridge and Coast Road in the peak hours (07:00-10:00 and 16:00-19:00) for HGV & LGVs;

- Significant investment in cycling infrastructure, particularly to public transport interchanges;
 - Junction changes to restrict access on and off A167/(M); and
 - Local measures to improve air quality by removing pollutants from the atmosphere, one example is moss walls.
13. Depending on the measures taken to change infrastructure to improve air quality it is considered likely that certain individuals or communities may be disproportionately impacted. Therefore, in addition to the measures outlined in paragraph 28 the authorities also propose to consult on a range of measures to support those most impacted, these include:
- Grants for upgrades/scrappage for older more polluting vehicles if owned by people meeting certain criteria;
 - A public behaviour change campaign that incorporates engagement with businesses and schools to look at implementing new working/commuting practices and ways to get around. This is particularly important given that the larger reduction we can see in single occupancy car trips, particularly in peak hours, the better the area's transport network will function and the cleaner our air will be;
 - Travel credits for people on lower incomes living within the impacted area to ensure there are realistic options for alternative ways of getting around; and
 - Exemptions for certain types of vehicles or users such as emergency service vehicles and blue badge holders.

Recommendations

14. It is recommended that Cabinet:
- (i) Approves the submission of the Outline Business Case (annexed to this Report) to the Government's Joint Air Quality Unit thereby meeting the requirements of the Secretary of State's legal direction of 27 July 2017;
 - (ii) Agrees that consultation take place with the public and stakeholders on the potential measures to be implemented to deliver compliance with legal limits for nitrogen dioxide in the Council's administrative area in the shortest possible time and that the consultation will take place during a pre-election period;
 - (iii) Delegates the approval of the final form of the appropriate consultation materials to the Chief Executive in consultation with the Portfolio Holder for Environment and Transport;
 - (iv) Agrees that officers be authorised to undertake further detailed analysis of a range of measures that might be implemented including non-charging measures and, where appropriate, those highlighted as a result of the

consultation process in order to inform a final decision as to which measures to implement;

- (v) Notes that responses received as a result of the consultation process will be considered and further analysis will be undertaken. This will then feed into the preparation of a Full Business Case which will then subject to Cabinet approval at that time, be submitted to government; and
- (vi) Notes that Newcastle City and North Tyneside Councils have been asked to approve cabinet reports with the same recommendations.

For the following reasons:

- (i) To fulfil the legal direction from the Secretary of State dated July 2017; and
- (ii) To enable further consideration of options with a view to improving air quality in Gateshead, Newcastle and North Tyneside.

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APPENDIX 1

Policy Context

1. The government has repeatedly been taken to court and lost a number of legal challenges relating to its obligations to ensure that measures are taken in order to reduce nitrogen dioxide to levels below the limits required. In particular, it has been established that the government is now under an obligation to take measures to achieve these limits in the shortest possible time. The recent *UK Plan for tackling roadside Nitrogen Dioxide concentrations* identified a number of areas across the country that, based on government modelling, would not be compliant with legal limits for roadside Nitrogen Dioxide (NO₂) by 2021.
2. In July 2017 the Secretary of State issued legal directions to local authorities where modelled emissions exceed the standards required by law. These directions required local authorities to carry out feasibility studies to identify options to deliver compliance with EU limit values in the shortest possible time. The Tyneside authorities received such a direction.
3. In developing their response to the direction, the Tyneside authorities have been mindful of the context of the following policy documents:
 - The Tyne and Wear Local Transport Plan;
 - The Core Strategy and the Urban Core Plan;
 - Making Gateshead a Place Where Everyone Thrives
 - The corporate visions and plans of Newcastle City and North Tyneside Councils

Background

4. Outdoor air pollution is a major risk to human health. Based on national estimates, poor air quality is considered to be responsible for around 360 deaths each year across Gateshead, Newcastle and North Tyneside and around 40,000 across the UK. Related causes of death include circulatory disease, respiratory disease and cancer. As a comparison, there are around 11 deaths per year caused by road traffic collisions across the three local authorities.
5. The recent UK Plan for tackling roadside Nitrogen Dioxide concentrations identified a number of areas across the country that, based on government modelling, would not be compliant with legal limits for roadside Nitrogen Dioxide (NO₂) by 2021.
6. As part of the UK Plan, many Councils including Gateshead, Newcastle and North Tyneside were subject to a Direction (a legal order) from the Secretary of State dated 27 July 2017 to “undertake as part of the UK plan for tackling roadside nitrogen dioxide concentrations 2017, a Feasibility Study in accordance with the HM Treasury’s Green Book approach, to identify the option which will deliver compliance with legal limits for nitrogen dioxide in the area for which the authority is responsible, in the shortest possible time”. The Outline Business Case presented here for approval, is the Feasibility study which has been produced in response to this Direction.

7. A number of measures to bring forward improvements in air quality, have already been delivered, or are being delivered through funding from other sources. These include:
- Cycling infrastructure on Durham Road in Gateshead and in Newcastle City Centre;
 - Improvements to traffic signals on Newcastle Quayside;
 - Providing real-time occupancy data for car parks in Newcastle City Centre; and
 - Retrofitting buses to the latest engine standards in all three authorities.

Proposal

8. While it is important to recognise that air quality is improving, so too is the authorities' understanding of the serious public health implications of poor air quality on people. Since the Government issued the Direction significant progress has been made on developing and testing measures to improve air quality in the area. The authorities' aim has been to identify measures that seek to deliver compliance with EU limit values fairly and in a way that supports the local economy and improves public health, rather than focusing solely on certain roads, or certain groups of road users.
9. As councils, we have consistently highlighted our concern regarding the need to undertake this work within constrained timescales and resources, and with a focus on specific pollutants in particular areas. The timescale set by government stems from a series of legal challenges and has resulted in a specific legal direction being made in relation to us and 25 other local authorities. While it is not specifically required by government, it is clear that our success will be measured by whether or not we achieve sustainable changes in air quality and in travel behaviour for the long-term rather than just delivering compliance in the short-term
10. This report presents the findings from the ongoing feasibility study and sets out a proposed set of measures for consultation with the public and wider stakeholders. It needs to be stressed that at this time the Council remains in a formative stage of its decision-making process. No decisions have been made as to what measures it will be appropriate to adopt to address air quality; rather the decision-making process will be informed by consultation on a set of measures that officers have identified to be appropriate for consideration by the public at this stage. All responses received as a result of the consultation process will be considered and further analysis will be undertaken. This will then feed into the preparation of a Full Business Case which will then be submitted to government.
11. After receiving the Direction from Defra, Gateshead, Newcastle and North Tyneside authorities have undertaken a joint Feasibility Study in recognition of the complex and interlinked travel patterns in the region. The Study has been funded by central government which is also responsible for ensuring that funding is made available to implement resultant measures to improve air quality (through the Implementation Fund) and to mitigate the impact of implementation (through the Clean Air Fund).
12. This Study has been overseen by a Steering Group incorporating representation from Chief Executives, and officers from Transport, Public Health and Environmental Protection along with wider partners including Highways England.

Regular discussions have also taken place with the Leaders, Elected Mayor and Cabinet Members across the authorities to ensure the views of democratically elected Councillors are taken into account throughout the process. It is also important to note that the authorities have consistently sought to extend their focus beyond a narrow compliance with Defra requirements and recognise that it is not only nitrogen dioxide that has an impact on public health. The authorities have sought to ensure that the authorities' work delivers outcomes that will improve public health as a whole, support our economy and protect vulnerable communities.

Air Quality in Tyneside

13. Local authorities have obligations in relation to air quality as a result of the regime set out in the Environment Act 1995. It has to be stressed that this regime is separate from the obligation falling upon the Secretary of State to ensure compliance with EU limit values arising out of the Air Quality Standards Regulations 2010. The regime under the Environment Act 1995 has resulted in a comprehensive local monitoring regime with one existing Air Quality Management Area (AQMA) in Gateshead and two in Newcastle. Over several years of monitoring in Gateshead, a sustained reduction in concentrations of NO₂ below the air quality objective has been seen. These reductions have been achieved through measures introduced by the local authority as well as significant improvements in vehicle engine/exhaust technology. The Gateshead AQMA is under review in accordance with LAQM requirements and pending the outcomes of the Clean Air Zone Feasibility Study. Indeed, whether to retain the Gateshead AQMA was under review even before the July 2017 Direction was received. Every year, Gateshead and Newcastle Council report on air quality monitoring relating to existing AQMAs; these reports are available on the Councils' websites.
14. In order to have a greater understanding of air quality across the whole area, the authorities have developed computer models that aim to illustrate the position now, and what it would be like in the future if certain decisions were taken with regards to how the highways network is managed and maintained. Unlike the national model used by central government, these models have used local monitoring and data to underpin their assumptions and outputs. The results of these modelling exercises are summarised later in this report and in Appendix 2.
15. As a whole, the authorities' monitoring and modelling shows that Air Quality is generally below legal limits across the three local authorities, particularly in residential areas. However, there are some areas where air pollution exceeds the legal limits for nitrogen dioxide. It is important to note that much of the evidence about air quality and its impact on public health makes it clear there is no safe limit for exposure and that other pollutants such as particulate matter also cause significant public health issues. These areas of exceedance are typically in proximity to major roads or in Newcastle City Centre, where there are topographical issues and where there are complex demands made of the city's road network.
16. The government's model identified three areas that it considered required attention:
 - the approach to the Tyne Bridge from the north and the south and the Tyne Bridge itself;

- a stretch of the Coast Road in North Tyneside; and
- parts of the A1 Western Bypass (which is the responsibility of Highways England).

17. The authorities' more locally focussed approach has included consideration of these areas. However, following the modelling, the particular area of concern has been identified to be the Central Motorway in Newcastle.
18. This is a key road for both traffic travelling to Newcastle City Centre and as a through route for traffic acting as part of the Newcastle inner ring road and leading directly to and from the Tyne Bridge. Both Newcastle policies and those shared with Gateshead as part of the Joint Core Strategy have sought to restrict traffic travelling through residential areas and the city centre and to use the Central Motorway instead. Balancing the need to achieve air quality limits in the vicinity of the Central Motorway, with the need for it to continue fulfilling its role as the preferred route for through traffic, does not lend itself to a simple solution. The authorities have been mindful throughout the process of considering options of the need to avoid simply 'shifting' air quality problems from one location to another. The authorities have sought to ensure our analysis leads us to solutions that do not conflict with existing policy objectives wherever possible.

Clean Air Zones

19. As part of its *UK Plan* the government has published a framework that sets out the principles for the establishment and maintenance of Clean Air Zones (CAZs) in the UK. CAZs can take the form of 'charging' or 'non-charging' zones. However the government's guidance is clear that any non-charging measures have to be tested against the effectiveness of implementing a charging CAZ, and that government requires that the measure that brings compliance in the shortest possible time is to be preferred.
20. Charging CAZs mean that vehicles which do not comply with emissions requirements and enter a defined zone are charged a set amount by the local authorities. In order to avoid a charge, vehicles must be EURO 4 or later for petrol vehicles (most new car registrations after 01 January 2006) and EURO 6/VI for diesel vehicles (most new car registrations after 01 September 2015). The framework also indicates that there are four different classes of CAZ to consider, as specified by Government, defined by reference to the type of vehicles which would be subject to charges:

21.

CAZ class	Vehicles included
A	Buses, coaches and taxis
B	As A with the addition of heavy goods vehicles (HGVs)
C	As B with the addition of light goods vehicles (LGVs)
D	As C with the addition of private cars and the option to include motorbikes and mopeds

Developing options addressing government's approach to Clean Air Zones (CAZs)

22. The three local authorities have conducted a detailed process in order to appraise various potential options, each of which were made up of a number of sub-measures. This process is detailed in the Outline Business Case at Appendix 2. The “*Critical Success Factor*” for this work was defined by the government and was “*whether a measure had an impact on air quality in the shortest possible time and was deliverable by 2021 at the latest.*”
23. Measures considered at the initial longlisting stage included, amongst other things: upgrading various junctions or road corridors; implementing a Workplace Parking Levy; removing existing bus lanes; making changes to parking; cycling facilities and amendments to school hours in addition to charging CAZs. A full list of measures is incorporated within the Appendix to the Strategic case of the authorities' Outline Business Case in Appendix 2. During the process of determining the measures, and their deliverability, the authorities undertook an engagement exercise with a group of key stakeholders that included representatives from the Freight Transport Association, public transport operators, transport user groups and the Newcastle Hospital NHS Foundation Trust in addition to independent consultancies working with us on this project.
24. Due to the pressing timescales of the study, the time required to build the necessary transport and air quality models, and the need to compare all measures against charging CAZs, the options that were shortlisted to be tested in the transport model in the first instance were:
 - Do Minimum (i.e. only committed investment and schemes);
 - CAZ Class B at both a ‘wide’ area (using the A1 and A19 as an outer boundary) and one focused on an ‘inner’ area (focused on Gateshead Town Centre and Newcastle City Centre stretching onto the A1058 and including the Gosforth Air Quality Management Area);
 - CAZ Class C at the ‘inner’ level referenced above;
 - CAZ Class D at the ‘inner’ level; and
 - A non-charging option (all measures that were considered to be deliverable by 2021 but that did not involve financial charging).

Analysis of air quality modelling on CAZs

25. The intention behind the modelling work was to use best practice techniques to determine how effective certain measures would be in delivering air quality improvements. As part of this, the authorities needed to determine a proposed charging regime. In order to ensure consistency of approach the authorities liaised with Birmingham and Leeds who had also been given a legal direction to undertake this work around a year before us. Notwithstanding an expressed intention to do so, government has not yet defined minimum and maximum charging levels. It is important to note that a number of local authorities who have been subject to directions have altered both their proposed charging regimes and the geographical

spread of potential CAZ areas following public consultation. The charges that were tested are outlined below:

26.

Vehicle Class	Daily Charge for Non-Compliant Vehicles
Buses/Coaches	£50
HGVs	£50
Taxi and Private Hire	£12.50
Light Goods Vehicles	£12.50
Private Car	£12.50

27. The results of the modelling concluded that no form of charging CAZ as outlined in the government’s framework would enable areas in Newcastle on the Central Motorway and the approach to Central Station to meet Air Quality limits in 2021. All areas in Gateshead and North Tyneside would be in compliance. The A1 Western Bypass in Newcastle would have areas that would not be compliant, however the local authorities have no powers to implement changes to the A1. Despite local authorities being mandated to implement charges if required, the government have confirmed no such changes will take place on the national road network. Rather, the Government has indicated that it is Highways England that is responsible for measures on the strategic highway network.

28. Of the options outlined within government’s CAZ framework tested to date, the CAZ Class D with a series of additional or mitigating measures would get us closest to complying with the legal limits by 2021. The Class D charge tested would cover the “inner” geography described in paragraph 24 above and illustrated in Appendix 2, though such an area could be altered following consultation. A number of elements are included in this option, such as:

- HGV Retrofit/Scrappage, in order to ensure that HGVs travelling within the zone are compliant;
- LGV Retrofit/Scrappage, in order to ensure that LGVs travelling within the zone are compliant;
- Taxi (by this we mean Hackney Carriages and Private Hire Vehicles) Retrofit/Scrappage, in order to ensure that vehicles travelling within the zone are compliant.

29. The authorities’ assessment of the charging CAZs also highlights significant concerns about the impact such measures would have on particular communities. The Integrated Impact Assessment undertaken clearly shows that a CAZ D would affect a significant number of people but also does so disproportionately in lower income households and areas of deprivation. Furthermore, it is clear that the charging framework also disproportionately affects smaller businesses, including taxi drivers/firms.

Further Measures to improve Air Quality

30. Having satisfied the direction with regards to considering charging CAZ options to improve air quality to legal limits it was seen that none would ensure complete compliance by 2021. Following that, the authorities are re-examining the shortlist to

determine which further measures could be delivered and would meet the authorities' aims of fairness, improving health and protecting the economy. The authorities are therefore considering alternative measures that would help to accelerate our ability to deliver cleaner air in the shortest time possible and are undertaking additional transport and air quality modelling of a range of options that the authorities wish to seek the public's views on.

31. It is clear that taking action to meet air quality limits requires a complex decision-making process which inevitably involves a number of trade-offs. The authorities' intention throughout the appraisal process has been to find the most appropriate solution for the residents of this area. The additional measures being considered and that the authorities wish to consult the public on are listed below:
- A Low Emission Zone to ensure a minimum emissions standard (EURO VI/6) for buses, HGVs and taxis in Newcastle City Centre. This would be a smaller area than the area modelled for the CAZ and would be focused on the City Centre with an option to implement a similar LEZ in Gateshead Town Centre;
 - Other means of charging certain road users that would not focus solely on older vehicles and therefore could be seen to be more equitable. By applying to a wider range of vehicles than government's approach this option could also be set at a lower level in order to remain effective. These options include tolls on city centre bridges that could be set at the same level as those for the Tyne Tunnel (£3.40 for HGVs, £1.70 for LGVs / cars). Under such a scenario it would be proposed that public transport (buses and taxis) and ultra low emission vehicles would be exempt from charges. Options such as variable charging (e.g. where charges during peak hours are more than off peak times) will also be considered as part of the consultation;
 - A ban on use of the Central Motorway between the Tyne Bridge and Coast Road in the peak hours (07:00-10:00 and 16:00-19:00) for HGV & LGVs;
 - Significant investment in cycling infrastructure, particularly to public transport interchanges;
 - Junction changes to restrict access on and off A167/(M); and
 - Local measures to improve air quality by removing pollutants from the atmosphere, one example is moss walls.
32. Depending on the measures taken to change infrastructure to improve air quality it is considered likely that certain individuals or communities may be disproportionately impacted. Therefore, in addition to the measures outlined in paragraph 28, the authorities also propose to consult on a range of measures to support those most impacted, these include:
- Grants for upgrades/scrappage for older more polluting vehicles if owned by people meeting certain criteria;
 - A public behaviour change campaign that incorporates engagement with businesses and schools to look at implementing new working/commuting practices and ways to get around. This is particularly important given that the

larger reduction we can see in single occupancy car trips, particularly in peak hours, the better the area's transport network will function and the cleaner our air will be;

- Travel credits for people on lower incomes living within or commuting to the impacted area to ensure there are realistic options for alternative ways of getting around; and
- Exemptions for certain types of vehicles or users such as emergency service vehicles and blue badge holders.

33. There are also a number of measures which could result in improved air quality and could be funded from either the Clean Air Fund or alternative funding sources if successfully bid for, and that the authorities wish to consider through our consultation. The principal source of funding for larger measures is considered to be the Transforming Cities Fund, where the North East has been shortlisted to submit a bid by November 2019. The types of measures the authorities are considering in this bid are also focused on enabling sustainable and active ways of travelling in the area. These measures include:

- Transforming Newcastle City Centre to improve bus, pedestrian and cycle access;
- Potential removal of major infrastructure such as the Gateshead Highway flyover;
- Investment in Intelligent Transport Systems and other measures to improve traffic flow and public transport priority on key corridors;
- Consideration of measures such as a Workplace Parking Levy;
- Improved public transport interchanges;
- New Metro stations in areas such as North Tyneside, adding another Metro track east of Pelaw and upgrades to interchanges; and
- New Park and Ride facilities and Metro/light rail extensions/improvements.

Consultation

34. The key recommendation of this report is to carry out a public consultation in order to seek the views of the public, businesses and other organisations on proposals and options to deliver improved air quality.
35. In the development of the Outline Business Case officers from the three authorities have carried out informal stakeholder engagement with key sectors.
36. The Leader and Cabinet Member for Environment and Transport have been consulted on the proposal.

The Outline Business Case takes account of the Tyne and Wear Local Transport Plan which was subject to public consultation during its development.

Alternative Options

37. To comply with the legal Direction, the Council must submit the Outline Business Case to the Secretary of State Defra.
38. Following the consultation, the intention is to take into account the consultation responses in moving forward with the identification of a Full Business Case which identifies the package of measures that Government may require to be implemented in order to achieve its duty to secure compliance with EU limit values in the shortest possible time.
39. Non-compliance with the legal direction could result in the implications set out below in the Risk Management Implication section.

Implications of Recommended Option

What impact will this proposal have

40. The first impact this proposal will have is to fulfil the legal requirement to produce a Feasibility Study to identify an option to deliver compliance with legal limits for nitrogen dioxide in the Council's administrative area in the shortest possible time. It will also enable the Council to consult on the potential options to deliver this compliance objective. The potential improvement in NO₂ concentrations at the areas of greatest exceedance are summarised in Appendix 2 although again it must be noted that we also need to address more issues than just nitrogen dioxide. They can also be seen on the plans showing the outputs of the modelling of NO₂ levels in a number of scenarios within Appendix 2.
41. The proposal is to consult on a package of measures that would make up a potential option for implementation. A decision as to the final package would be made after consultation with the public and further discussions with government.
42. As identified elsewhere in this report, the three authorities have identified a number of key secondary objectives to be met through this work. Correspondingly, success will also be measured through:
 - Impacts on public health;
 - Impacts on the economy; and
 - Impacts on people, particularly the most vulnerable, in our society.
43. The ways in which these will be measured, and more, is set out in a comprehensive Monitoring and Evaluation Plan in the Management case part of the Outline Business Case in Appendix 2. This complies with both JAQU (Defra) guidance and the Government Magenta Book.
44. If implemented, the measures tested would result in significant impacts on particular sectors within the community. While there would be some mitigation achieved through the measures set out in 25-33 above, these are not eliminated. The consultation and further analysis of communities' requirements will be needed to inform the Full Business Case and any bid to the Clean Air Fund.

What is the timetable for implementation

45. The Legal Direction to which the Council is subject only currently requires the submission of a Feasibility Study, rather than the implementation of any plan. However, in recent correspondence it has been made clear that central government is likely to make a further Direction which will require the identification of a final package of measures to achieve compliance with limits values in the shortest possible time and then the implementation of that package.
46. The UK Government is working toward achieving compliance in the shortest possible time, ideally by 2021, and this is the timescale to which local authorities have been required to work.
47. Timescales to deliver the package of measures when a further Direction is received, differ due to the range of measures considered. This will also be dependent on the outcome of the consultation and a Full Business Case. This is reflected in the project plan.
48. The option which would be likely to take the longest time to implement would be that of the charging Clean Air Zone. This is due to the complexity of the installation and integration of local databases and the proposed national charging system.
49. It is considered that the measures would be able to be implemented by January 2021, if consultation were to proceed as recommended and as many procurement elements as possible were to occur in parallel with this. No decision would be made until all necessary approvals were in place and views arising through consultation had been considered.
50. It is proposed that the public consultation exercise set out in this Report would run from March 6th to May 17th 2019, enabling the public and stakeholders sufficient time to engage in the process. Views would primarily be sought through the use of a questionnaire with supporting information provided to ensure respondents can make representations with sufficient information to enable intelligent consideration of the issues and respond accordingly. To supplement this, targeted work is proposed to be done with specific stakeholders including business representative groups and representatives of groups identified within the Integrated Impact Assessment.
51. Major stages of the timetable to implementation include:
 - Submission of Outline Business Case to JAQU – 26 February 2019
 - Completion of Consultation – 17 May 2019
 - Submission of Final Business Case to JAQU and confirmation of funding award – To be confirmed after consultation but as soon as possible and subject to Cabinet approval
 - Issue and award tender documents for preferred option elements – As soon as possible 2019
 - Begin implementation of final option – As soon as possible

- Installation of relevant infrastructure if required – 2020
- System operational if required – January 2021

Legal implications

52. The Council is required to submit a Final Plan Feasibility Study identifying the preferred option for delivering compliance with legal limits for nitrogen dioxide in the shortest possible time pursuant to the Air Quality Direction 2017.
53. The Council has the power to create a Clean Air Zone, as set out in the Transport Act 2000 and Local Transport Act 2008, subject to carrying out public consultation and giving consideration to the necessity of holding a public inquiry.
54. Other measures set out in this report are within the powers of the Council, subject to consultation and the relevant statutory procedures and the making of Traffic Regulation Orders.
55. The Council has fulfilled its duties under the Public Sector Equality Duty by undertaking an initial Integrated Impact Assessment on the Charging Clean Air Zone Classes, including the level D option. Further impact assessment will also be undertaken to inform future decision-making.

Resources

a) Financial Implications

56. Funding for the Tyneside Feasibility Study has been provided to the three authorities by Defra through a grant process. Newcastle City Council are acting as lead authority. The total funding awarded thus far is £1,350,000 and a further grant request has been submitted in order to cover expenditure up to Final Business Case, including costs for consultation.
57. The three authorities have also received already £1,700,000 in Early Measures Funding to deliver early infrastructure improvements relating to Air Quality.
58. The recommendations in this report do not have direct financial implications for the Council.
59. As and when the Council's progress to the implementation phase, capital works which would be required to implement any preferred option, including a charging Clean Air Zone, would be funded by the Government through the Implementation Fund, which is needs based. The current estimate for funding from the Implementation Fund if a charging CAZ D is introduced is £13,491.
60. Capital and revenue funds which would be required in order to mitigate the impacts from any preferred option, including a potential Clean Air Zone, would be funded by the Government through the Clean Air Fund, which is competition-based. Elements of an initial submission to that fund are incorporated within paragraphs 25-33 above of this report, and the attached Outline Business Case. The current estimate for funding from the Clean Air Fund if a charging CAZ D is introduced is £21,090,000.

61. Details of the final costs of the preferred option will be included with the Full Business Case when it is submitted and will be agreed with Defra. This will comply with the Council's financial regulations.
62. Currently, it is estimated that the total cost to implement a charging CAZ D over 5 years is £3,772,555, including the relevant optimism bias, proposed to be funded from the Implementation Fund as set out in 59.
63. The operating costs are heavily driven by the expected traffic flows within the network. It is considered that there is a 'fixed' operational expenditure of £7,425,938 over 5 years and all other costs are related to traffic flows and consequent vehicle number plate checks.
64. As identified in paragraph 28, the authorities' work to date indicates that of the Charging CAZs tested, a Charging CAZ D is the option which brings the local authorities closest to the legal limit by 2021. The authorities are required by government to consider the impact on our local area and this includes a number of elements that are not felt directly by people or the local economy, such as carbon emissions or additional journey times. Our current analysis is that government's CAZ D approach would have a significant negative impact that is forecast to be in the region of £140million over a five-year period from 2021-2026. It is important to note that this is not a cost that would be directly borne by the local economy and represents estimates about the impact of factors that are not monetised.
65. It is also important to consider that the local authorities are currently only legally required to deliver a study identifying the option that delivers compliance in the shortest time and while we are yet to receive a formal direction to implement such an option, government have been clear that in doing so it will override other considerations, including the impact on the local economy.
66. The authorities' estimates of net revenue raised by the government's CAZ D approach is an average of £43million per year over five years. This estimate does not consider potential exemptions and is based on a geographical area and charge levels that are likely to change following consultation. As a comparison, the estimated revenue from an alternative approach of tolls as identified in paragraph 31 would be an average of £17.5million over the same period. All net surplus funding would be reinvested into the area's transport network.

b) Human Resources Implications

67. To deliver the recommendations there are no human resource implications.
68. To deliver air quality measures as set out in the Outline Business case would require human resources. This is likely to be through existing Council staffing or through joint procurement of specialist expertise. The Outline Business Case takes account of requirements.

c) Property Implications

69. There are no property implications.

d) Procurement Implications

70. There are no direct procurement implications of this report. Newcastle City Council has led on procurement on behalf of the three authorities for the Feasibility Study and it is proposed that this arrangement continues.
71. Officers undertook pre-market engagement with potential suppliers for solutions in Autumn 2018, in order to assist in the development of the Outline Business Case and to determine the procurement strategy.
72. In order to meet the shortest possible time order and begin the operation of any preferred scheme by 1st January 2021, it will be necessary to undertake a number of procurement activities, including advertising potential tenders while the consultation is ongoing. Delaying procurement processes could delay implementation of measures and may expose the authorities to continuing legal risk.
73. This will not prejudice the responses to any consultation as tender documents will:
- Have sufficient flexibility that requirements could be met in more than one way
 - Not be signed before the conclusion of consultation and submission of a Final Business Case

Risk Management Implication

74. Failure to comply with the legal Direction is set out in the legal section above. By agreeing to the recommendations, the Council will mitigate any risks posed by action by the government or a non-governmental organisation under the Direction.
75. The key risk is to the public health of the people of the area. Poor air quality is impacting on people's lives and needs to be addressed. The Council has made a number of improvements in recent years but needs to continue to do so through this plan and engaging with people about their travel choices.
76. A further fundamental risk is failure to achieve compliance with air quality standards as defined in EU directives, which have also been incorporated into UK law. While it is unclear what the exit from the EU might mean in terms of the implications if targets are not met. As it stands, it is possible that failure would mean significant infringement fines could be incurred. If the authorities were not to take action to reach compliance, the government could impose a solution on the city. In order to address this risk the authorities have sought advice from external legal counsel.
77. With such significant policy changes, one key risk is causing significant adverse impact on the residents or protected groups. In order to identify and mitigate this risk, the authorities have undertaken impact assessments and identified appropriate mitigations to be funded through the Clean Air Fund.
78. The methodology required modelling of transport and air quality. This has resulted in the adaptation and development of these tools to carry out the study within the short timescales. Whilst proportionate updates and calibrations have been undertaken with models in order to reduce risk, all models have limitations and no model is 100%

accurate. The authorities are continuing to develop updated transport and air quality models to better represent interventions.

79. A further risk relates to the availability of funding at a sufficient level to implement a solution. While the authority is required to submit business cases to government, it is not guaranteed to receive funding. Development of the Full Business Case will enhance estimates for implementation and increase confidence levels in government of funding levels required for deliverability.
80. Risks associated with procurement in the shortest possible time will be mitigated by building on early supplier engagement with potential providers and will continue to develop specifications where possible in advance of the Final Business Case. The authorities are expecting to receive a further Direction from government to deliver measures that bring compliance in the shortest possible time and preparing procurement of different options will reduce the risks in this regard.

Equality and Diversity Implications

81. There are no implications at this stage however mindful of the possible implications on equality and diversity the authorities have completed an Integrated Impact Assessment which forms part of the Outline Business Case. The outcome has shown that more deprived communities are more likely to own non-compliant vehicles. Charged CAZ measures that place a charge on these vehicles entering the CAZ will place additional burdens on finances and the ability to pay, the alternative may involve a longer journey. Also, measures may cause re-routing of traffic to areas of high deprivation if they lie along alternative routes. This would increase the public health risks as a result of poor air quality from diverting non-compliant vehicles. Scrappage type arrangements are proposed to some categories of vehicle user to support upgrading to a compliant vehicle.

Crime and Disorder Implications

82. None

Health Implications

83. Air pollution is a major risk to human health. Based on national estimates, poor air quality is considered to be responsible for around 360 deaths each year across Gateshead, Newcastle and North Tyneside and around 40,000 across the UK. Related causes of death include circulatory disease, respiratory disease and cancer. As a comparison, there are around 11 deaths per year caused by road traffic collisions across the three local authorities. If the measures are implemented and are successful an improvement in health would be expected.

Sustainability Implications

84. The authorities are mindful of the benefits of more sustainable transport including active modes (walking and cycling) on both air quality, physical and mental health. The Direction from government has required the authorities to focus on minimising NO₂ pollution at specific locations of exceedance which requires addressing non-compliant vehicles. However the authorities have sought to include measures that

increase use of sustainable modes in the Outline Business Case and will include this as an element of the Consultation.

Human Rights Implications

85. None

Area and Ward Implications

86. The measures addressed in the Outline Business Case include a charging CAZ which includes Gateshead Town Centre however, if implemented, re-routeing impacts of the measures would be wide ranging and include most areas within the geography bounded by the A1 and A19 to some extent.

Background Information

87. The Outline Business Case is attached as Appendix 2
88. The following documents are available on request:
- Newcastle and Gateshead Core Strategy and Urban Core Plan
 - The DEFRA Air Quality Plan July 2017
 - DEFRA Clean Air Zone Framework