

**Manchester City Council
Report for Resolution**

Report to:	Neighbourhoods & Environment Scrutiny Committee – 31 January 2018 Executive 7 February 2018
Subject:	Draft Clean Air Plan (Strategic Outline Case) to Reduce Roadside Nitrogen Dioxide Concentrations and Development of Greater Manchester Mayor’s Congestion Plan
Report of:	Strategic Director for Highways, Transportation and Engineering and the Deputy Chief Executive, People, Policy and Reform

Summary

This paper updates Members on work that is being undertaken to prepare a Draft Clean Air Plan (Strategic Outline Case (SOC)) for submission to Government and to develop a Congestion Plan for Greater Manchester. The former document identifies a shortlist of proposed actions, for further investigation, that will enable the Council and other Greater Manchester authorities to meet statutory obligations with respect to Nitrogen Dioxide concentrations in the shortest possible time. The Congestion Plan is intended to identify a number of near term measures that can better manage congestion across Greater Manchester.

The report asks for appropriate delegations from the Executive to enable the documents to be approved as far as Manchester City Council is concerned.

Recommendations

Neighbourhoods and Environment Scrutiny Committee is recommended to note and comment on the content of the report, the emerging work on both the Draft Clean Air Plan SOC and the GM Mayor’s Congestion Plan and the process by which these will be taken forward.

Executive is recommended to:

1. Note the emerging content of the Draft Clean Air Plan (SOC) and the GM Mayor’s Congestion Plan and to delegate to the Strategic Director for Highways, Transport and Engineering and the Deputy Chief Executive (People, Policy and Reform), in liaison with the Chair of the Executive and the Executive Member for the Environment, approval of the submission of the SOC to the Joint Air Quality Unit by the end of March 2018, and approval of the final version of the Congestion Plan, as far as Manchester City Council is concerned.
2. Request officers to report back to Executive in order to seek approval to the measures to be contained in the next iterations of the Clean Air Plan, the Outline Business Case (OBC) in August / September 2018, and the Full

Business Case (FBC) (the final draft), which is due to be submitted in December 2018.

Wards Affected: All

Manchester Strategy outcomes	Summary of how this report aligns to the OMS
A thriving and sustainable city: supporting a diverse and distinctive economy that creates jobs and opportunities	Ensuring that the City's transport infrastructure operates effectively, and that air pollution is minimised, will help deliver this outcome.
A highly skilled city: world class and home grown talent sustaining the city's economic success	The City's transport infrastructure is a key part of what makes it function effectively.
A progressive and equitable city: making a positive contribution by unlocking the potential of our communities	Ensuring that residents can access job opportunities and other facilities in a safe and clean environment, will enable everyone to contribute to the success of the City.
A liveable and low carbon city: a destination of choice to live, visit, work	Reducing congestion and air pollution will improve perceptions of the City, and help to tackle greenhouse gas emissions.
A connected city: world class infrastructure and connectivity to drive growth	Investing in and maintaining the City's transport infrastructure will help to drive growth.

Financial Consequences – Revenue and Capital budgets

There are no financial implications directly arising from this report. As the Clean Air Plan and Congestion Plan are developed, further reports will be prepared at the appropriate stages to address the financial consequences of these.

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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
- Air Quality Task and Finish Group Final Report (November 2017)

1.0 Introduction

1.1 Work is currently underway to produce two discrete but connected documents. Firstly the City Council and six of the nine other Greater Manchester authorities, along with a number of other urban local authorities in England, have been charged by Government with developing a plan which aims to reduce unlawful levels of nitrogen dioxide in the atmosphere in the shortest possible time, pursuant to rulings by the High Court and the Supreme Court. Greater Manchester authorities have agreed to work together to respond to this requirement and are required to submit a Strategic Outline Case (Draft Plan) to Government by the end of March, setting out a draft list of measures that are being considered to achieve compliance with the law. Secondly, as part of his manifesto, the Mayor for the Greater Manchester Combined Authority (GMCA) committed to producing a plan to tackle congestion across Greater Manchester by identifying a number of measures that could be implemented in the near term. Following a conversation with Greater Manchester residents on the issue during autumn the intention is to publish a Congestion Plan at the end of February. Both documents will have implications for the city and in particular for its transport system. This report updates members on the documents' development and emerging content and seeks delegations to approve the documents' content as far as the City Council is concerned.

2.0 Clean Air Plan - Strategic Outline Case

2.1 In July 2017, the Government published its latest plans to improve air quality and to achieve compliance with legislation across the country. The *UK plan for tackling roadside nitrogen dioxide concentrations*, builds on an earlier draft and contains new initiatives and legislation. It contains a commitment to develop a National Air Quality Strategy in 2018, which will look to address a wider range of pollutants, in addition to nitrogen dioxide (NO₂). The Government also proposed additional actions to be undertaken to address the specific issue of NO₂ pollution, the most significant of which was 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 (known as Clean Air Plans) to achieve statutory NO₂ limit values in their areas within the shortest possible time. The national plan is, in a number of areas, quite prescriptive in terms of the actions that local authorities must undertake. The Government's own analysis indicates that a charging Clean Air Zone (CAZ)¹ would be the most effective means of improving air quality in as short a time as possible, however, given the potential (financial) impacts on individuals and businesses of a charging CAZ, equally effective alternative measures which avoid these impacts would be 'preferred', and so local authorities must consider such alternative measures.

¹ 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.

- 2.2 22 local authorities across the country, including Manchester, Bolton, Bury, Salford, Stockport, Tameside and Trafford in Greater Manchester, are required to produce Clean Air 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. Because of the major contribution that transport emissions make to overall pollution levels, Transport for Greater Manchester (TfGM), acting on behalf of the GMCA, lead on air pollution issues across Greater Manchester. TfGM are therefore leading on the production of a single Greater Manchester Clean Air Plan. However, TfGM can only exercise their air pollution functions concurrently with the Greater Manchester districts, and many of the powers and responsibilities relating to air pollution and transport are the responsibility of individual local authorities. Close liaison is therefore required with and between the Greater Manchester authorities and the individual authorities will be responsible for taking forward many of the actions that are likely to form part of the final plan.
- 2.3 The Government’s published plan considers the extent to which NO₂ levels on main roads managed by local authorities are likely to exceed legal limits by 2020 if no further action is taken. Further joint work is currently underway between Greater Manchester and Government to clarify the extent of the road network where specific actions will be required to meet legal requirements. The published Plan forecasts that a stretch of the Mancunian Way and a stretch of Princess Parkway close to the M60 will fail to comply with legal limits by the required date. Both roads are forecast to remain above the legal limit of 40micrograms of nitrogen dioxide per cubic metre annual mean, until 2022. Similar exceedances affect stretches of roads in the other affected local authorities. The proposed Clean Air Plan will propose a number of measures across Greater Manchester to address this problem in as short a time as possible.
- 2.4 The Government are to establish a £255 million Implementation Fund² to support Local Authorities in the preparation of their plans and the delivery of actions to improve air quality. Local authorities are required to develop their costed proposals and submit them to Government for assessment, to access this funding through a structured bidding process. A programme to meet the Government’s requirements for the development of a Clean Air Plan has been developed, which includes submitting a “Strategic Outline Case” (SOC) (Draft Plan) to the Joint Air Quality Unit (JAQU) by the end of March 2018; submitting the Outline Business Case (OBC) by August / September 2018, and the Full Business Case (FBC) by the end of December 2018, unless further consultation on the FBC is needed. JAQU is an agency of Government comprising civil servants from both the Department for Environment, Food and Rural Affairs (DEFRA) and the Department for Transport (DfT). The process is illustrated in Appendix 1 to this report.
- 2.5 The initial work has focused on the development of the SOC which will set out the high-level strategic need for a detailed feasibility study into improving air

² £40 million of the Implementation Fund will be made available immediately for Local Authorities to bid for funds to deliver ‘quick wins’ to improve air quality.

quality, the draft programme of measures and the methodology and approach that will be applied to deliver the preferred package of measures. The OBC will provide more detail than the SOC and will define packages of measures which modelling will demonstrate could achieve compliance within the required timescales, and at this stage the scale and scope of the bid should be clearer. The purpose of the FBC is to detail the preferred package of measures, and to set out the commercial, contractual and management arrangements and the scheme’s overall affordability; the development of the FBC is likely to involve public consultation. It is envisaged that the production of these documents will be sequential, with the FBC being informed by the OBC and in turn by the SOC. The SOC does not commit any District to any specific actions but is intended to identify the measures that will be subject to further study over the coming months.

- 2.6 In terms of progress, TfGM have undertaken detailed measure definition and modelling work and identified a long-list of 96 potential measures. Following an assessment against the “Primary Critical Success Factors” (Reducing the NO₂ limit values to below the legal levels; and, delivering at least as quickly as a charge-based Clean Air Zone) the measures listed in Table 1 below are considered to have potential. The measures listed vary between primary measures that are seen as having the potential to achieve compliance on their own and secondary measures which, while not delivering the scale improvement in isolation, could form part of an overall package. As mentioned above the effectiveness of these measures need to be assessed against that of a Clean Air Zone of the class required to achieve compliance.

Table 1: Short List of Measures

Measure	Type of Measure	Description
Parking		
Differential parking charges	Primary Measures	Related to usage/capacity (e.g. different charges for times of day to reduce congestion) and vehicle type (e.g. free for electric or reduced for car sharers or for emission standard/engine size) and/or workplace parking levy
Public Transport		
Retrofitting or upgrade of public transport fleet and introduction of stringent emissions standard through contracts or partnership	Primary Measures	Retrofitting of public transport fleet to cleaner alternatives. Set stretching targets to improve the efficiency of fleet and specify emission standards in bus contracts
Increase capacity of public transport on specific routes	Secondary Measures	

Measure	Type of Measure	Description
Infrastructure - Alternative Fuels		
Switch bus, Heavy Goods Vehicles (HGV)/Light Goods Vehicles (LGV) depot fuelling stations or GM fleet to Gas to Liquid	Primary Measures	Use of Gas to Liquid fuel as a diesel alternative. (If Public Transport retrofit is standard measure then would not need Gas to Liquid for commercial bus but could apply to community transport)
LGV – Electric Vehicle (EV) incentivisation	Primary Measures	Funding of electric charging points, and Gas to Liquid at source infrastructure
Improve Local Authority fleet to electric/LPG/low emission through a procurement policy	Secondary Measures	
Infrastructure - Traffic Control		
Congestion Plan traffic management – increased capacity	Secondary Measures	Providing more capacity – Review of existing junction improvement plans. Assess existing schemes to understand potential benefit on specified links; with a view to bringing schemes forward sooner
Congestion Plan traffic management – encouraging alternatives	Secondary measures	Encouraging alternative travel choices – Road space reallocation in order to suppress latent demand released through implementation of other measures
Congestion Plan traffic management – network management	Secondary measures	Signal optimisation – changes to traffic signal timing to optimise flows in order to reduce congestion on specified links
Taxis		
Incentives for taxis to change to EV vehicles. Installation of rapid EV charging infrastructure for taxi vehicles.	Primary Measures	Consider measures to incentivise taxis to change to EV/Ultra Low Emission Vehicles (ULEVs)
Increase LPG refuelling infrastructure for taxis	Secondary Measures	Consider measures to encourage switch to ULEVs
Non-charge based CAZ awareness activities		
Communications campaigns/awareness raising of health and cost benefits of different	Secondary Measures	Communications campaigns/awareness and signage

modes or around a particular community/schools		
Travel choices programme (businesses & individuals)	Secondary Measures	Dependent on scale of programme
Active travel programme – engagement	Secondary Measures	
Cycling & Walking		
Active travel programme – infrastructure	Primary Measures	Including provision of measures to enable travel to public transport hubs on foot or by cycle and for short journeys

- 2.7 Modelling work will be undertaken to further refine the potential measures to feed into the document preparation.
- 2.8 In advance of the implementation of Clean Air Plans, the Government has made a pot of funding available to support ‘early wins’ to improve air quality. The deadline for bids to this funding was 26th January, and at the time of writing it is anticipated that GM will submit a bid to improve Electric Vehicle (EV) infrastructure and run an enhanced awareness campaign to encourage travel behaviour change.
- 2.9 Many of the above measures that are currently being considered will require actions by local authorities, and may have wider impacts than just reducing pollution levels to legal limits. It is therefore important to recognise what the preparation process entails, and how the OBC / FBC submissions will be assessed by Government in allocating funding, so that the Council can effectively contribute to the development of the plan and approve its iterations at the appropriate time (prior to OBC and FBC submissions), alongside any approvals by the GMCA.
- 2.10 It is also important to note that there were two significant air pollution related initiatives instigated by the Council in 2017. Firstly the Neighbourhoods and Environment Scrutiny Committee established a Task and Finish Group, to consider the causes and consequences of air pollution within Manchester and to suggest measures to address the problem. The group drew upon experts from a range of fields including public health and transport, and their work resulted in 17 specific recommendations. (These are set out at Appendix 2) Separately, in November, an Air Quality Conference was convened by Cllr Stogia, as Executive Member for the Environment and Skills, with a diverse range of stakeholders, including representatives from businesses, higher education and interest groups. Following presentations from expert speakers, round-table discussions were held to explore the issues in more detail and again measures were recommended, some to be implemented by the organisations present and others for public bodies to take forward. The outputs from the conference are attached at Appendix 3.

2.11 The results from Task and Finish Group's work and the outputs from the conference will assist in helping to inform the Council's position with regard to taking forward the Greater Manchester Clean Air Plan and Congestion Strategy, and in responding to the forthcoming National Air Quality Strategy. The latter will look to address a range of pollutants - not just the illegally high levels of nitrogen dioxide that are the focus of the current submission to Government. The findings from the Task and Finish Group and Conference have been shared with TfGM to help them to refine the measures that they have identified.

3.0 Greater Manchester Congestion Plan

3.1 In Autumn 2017, the Mayor of Greater Manchester conducted a 'Congestion Conversation' survey to ascertain the views of residents, visitors and businesses on road traffic congestion issues and how they could be addressed. Following the conclusion of this survey, Transport for Greater Manchester has been working to develop a Congestion Plan for Greater Manchester, again in collaboration with the 10 local authorities and Highways England. The latter is responsible for the management of the motorway and major A-road networks. The intention is for the Mayor to publish a Congestion Plan at the end of February 2018.

3.2 The three main issues that have been raised so far in relation to the emerging plan are:

- Integrating different themes across the related topics of congestion, cycling, walking and air pollution;
- The need to develop a delivery plan, which identifies the funding and resourcing implications at different spatial levels; and,
- Clearly stating responsibilities for different measures.

3.3 The Congestion Plan is expected to cover a number of broad objectives, including:

- Improving the management of the transport network by better integration of the types and operators of transport, through greater coordination of roadworks and traffic signals and by responding quickly to unexpected incidents;
- Giving people more choice about how and when they travel by making it easier to cycle, walk or use public transport, through better provision of information and by working with employers to encourage more flexible working;
- Increasing the capacity of our transport network to support the reliable and effective movement of people and goods through investment in public transport, tackling bottlenecks on our roads and through a better use of the existing road space.

3.4 Work on the plan is ongoing and will be informed by further meetings and workshops; the current proposal is for the Congestion Plan to be formally considered at the GMCA meeting of the 23rd February, with its publication proposed for the end of February 2018. Once the plan has been approved actions to implement it will commence, including delivering quick wins and

monitoring arrangements, ultimately reporting to the Greater Manchester Mayor's Transport Board. In many cases, the delivery of the GM Congestion Plan will require action by the Local Highway Authorities, and consequently the measures in the Plan will need to be approved by local authorities as well as the GMCA and the resources to implement it will need to be clearly identified.

4.0 Conclusions

- 4.1 The GM Clean Air Plan and Congestion Plan are separate but related, and there are clear synergies between the two documents. There is a need to align the approaches despite the different timescales for preparation. Interactions with other relevant policy and strategy documents, such as the Greater Manchester Spatial Framework and the 4th Local Transport Plan - 2040 Strategy also need to be drawn out. It will be essential, in order to meet the national air quality standards and local congestion targets that these, and other relevant plans, are mutually reinforcing, so that actions to reduce congestion should also help deliver improved air quality. The publication in 2018 of the Government's National Air Quality Strategy is expected to provide further clarity on the national approach.
- 4.2 It is also important to note that sufficient resources must be made available to deliver these plans, and that governance and oversight processes will need to be established by the city council, other Greater Manchester authorities and at Greater Manchester level. The resourcing of Clean Air Plans is to be addressed through the Government's national plans, and work is ongoing to ensure that Greater Manchester obtains its fair share of the available resources. Many of the actions within the emerging GM Congestion Plan will require individual local authorities and other partners to implement them. It will be important that the plan is clear about the resources that are available and focuses in particular on those initiatives that can be delivered within existing budgets as well as making the case for additional funding and powers in the medium term.
- 4.3 It is recommended that Executive agree appropriate delegations to approve the Strategic Outline Case and the Mayor's Congestion Plan as far as the City Council is concerned and request further reports to enable the Outline Business Case to be considered in September and the Full Business Case to be considered prior to its final submission to Government in December.

Appendix 1 - **Clean Air Plan and Congestion Plan Preparation Timescale**

	Oct-Dec 2017	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-Mar 2019
GM Congestion Plan	> Development >		*											
GM Clean Air Plan	>> Initial Development >>			SOC	>> Detailed Development >>				OBC	> Final Development >		FBC	consultation?	

Key

- SOC – Strategic Outline Case
- OBC – Outline Business Case
- FBC – Full Business Case

Appendix 2 - Neighbourhoods and Environment Scrutiny Committee - Air Quality Task & Finish Group - Recommendations

1. Manchester City Council should recognise the huge health and happiness harms of bad air. Not only early and excess deaths, which in actuarial terms are totalled to 40,000 equivalents per year, but also perhaps more importantly less headline grabbing harms from cradle to grave which affect all residents to some extent in prenatal and perinatal thriving, birth weight, physical and mental degradation, and lifelong susceptibility to poor health outcomes.

Evidence has been presented that improved lifelong health outcomes and mortality appear to have a linear and continuous relationship to improved air quality. Manchester City Council should therefore adopt cross cutting policy to reduce Air

Quality and other road harms and work with Greater Manchester partners as a health and social equality priority to tackle these.

2. That the Director of Population Health and Wellbeing should press for a review of the Greater Manchester Population Health Plan and that it be amended or extended to properly reflect wider determinants of health including poor air quality and other road harms.
3. Manchester City Council and Greater Manchester Combined Authority join with Core Cities and others in continuing to lobby a government that continues to fail badly in this field, including for:
 - A new Clean Air Act
 - Fair and sufficient Diesel and other scrappage schemes
 - Further tax incentives for clean vehicles
 - Modelling and laws reflecting real world emissions not roller test data
 - Widening the government's responsibility to support Manchester, district and Greater Manchester authorities with powers and finance; drawing this from Health as well as Department for Transport and DEFRA.

The group consider this lobbying to be particularly important in the light of the preparations for Brexit and the potential loss of EU environmental legislation.

4. A large proportion of potential actions in this document belong to Transport for Greater Manchester/Greater Manchester Combined Authority (19 exclusively, 18 more jointly, just two with districts only).
 - The Head of Policy, Partnerships and Research and the Executive Member for the Environment should make the case for ownership in terms of funding for many actions to be with Government but in terms of action to be devolved to the city region and the districts with the right powers and resources.
 - Potential actions such as road washing and workplace parking levy which are not currently included be re-examined.
 - The six exclusively "Reduce Traffic" options in the document may be low hanging fruit, offering quick reductions in exceedances, arguably obtainable

- without damaging economy and growth. So these should be considered for priority.
- While Greater Manchester's Strategy is focused on road sources of air pollution because of the results of the EMIGMA model showing these to be dominant, Manchester should recognise and consider action to tackle other sources including wood burning stoves, agricultural chemicals and domestic and commercial heating.
5. The Director of Population Health and Wellbeing, the Executive Member for Adults Health and Wellbeing and the Greater Manchester Combined Authority should review the NICE guidance and consider actions for inclusion in Greater Manchester's implementation plan. Ideas not considered, largely because of the academic evidence methodology of NICE, should not be discounted.
 6. With no such thing as a healthy level of Air Pollution and as reaching the EU standards would not safeguard our residents from harm we welcome the Low Emissions Strategy and Air Quality Action Plan which seeks to improve air quality for health without arbitrary limits. We agree that Manchester City Council and Greater Manchester Combined Authority should not be satisfied with meeting European Union standards and will also work to deliver WHO BreatheClean and better and we recommend that the air quality and road harm policy (Recommendation 1) includes specific escalating targets over time.
 7. Manchester City Council and Greater Manchester Combined Authority should adopt suitable economic models for Greater Manchester.

The Centre for Local Economic Strategies have been commissioned by Transport for Greater Manchester to gather information and models for the financial and other costs of poor air quality and other road harms.

Manchester City Council and Greater Manchester Combined Authority should use this information and these models, and further models which may be developed as a result of identifying any gaps in existing scope, to achieve funding for ambitious and effective interventions which improve and save lives and also save money.

8. The strategic importance of built infrastructure in improving air quality and health should be fully recognised by Manchester City Council and Greater Manchester Combined Authority, including by:
 - Developing Planning Strategies to prioritise residential and commercial development on brownfield sites and in and around existing urban centres including at and around main sustainable transport nodes or along the lines to them.
 - Providing sufficient sustainable transport to new developments for them to grow into, rather than waiting for them to achieve critical mass before providing this. This will avoid damaging road travel, freight and logistics habits becoming established.

- Understanding that UK cities including Manchester and the Greater Manchester conurbation are built at very low densities compared to towns and cities in many other parts of Europe and that this is not inevitable.
- Understanding that higher density can be more sustainable than lower density in forms from retail premises with several residential floors above shops in district centres, to extensive schemes of midrise, to tall buildings.
- Recognising that, subject to thoughtful and innovative designs, existing density or height in a neighbourhood or district should not be an absolute limit on new developments and that this is particularly so in neighbourhood, district, town and city centre areas.
- Considering further pooling of development targets of ten districts so that: those best able and most willing to develop residential and commercial properties sustainably agree higher shares of GM targets and those less able and least willing agree lower shares.

9. That Manchester City Council as a local planning authority continues to pay close attention to Air Quality, and uses pre-planning discussions to help developers bring forward quality schemes, and uses planning conditions to improve on these.

Including by improving:

- Arrangements for construction and fit out and landscaping;
- Arrangements for future travel and servicing of developments;
- Requiring green travel plans for developments and for whole localities;
- Active travel routes and facilities;
- Local retail and amenity offers to avoid need for car journeys;
- Performance of buildings and their plant in terms of air quality;
- Public realm, plants and water, and other barriers, buffers and mediators;
- Contributions via Community Infrastructure Levy, section 106, section 278 and section 38 to facilities for active travel, seating, bikes, public realm, plants and water.

10. Manchester City Council should encourage such work and the sharing of best practice. Not only reaching Our Manchester citizens of tomorrow but also encouraging them to be clean air ambassadors to their neighbours, and families and friends. This might include citizen science projects using diffusion tubes to give an approximation of the quality of air at particular points in a locality cost just a few pounds per tube per month including analysis and moderately performing retail devices. These are useful for raising awareness and for watching patterns and trends but the group agree these are not a substitute for fully calibrated instruments.

A mapping exercise to be undertaken that identifies this activity across the city.

11. Manchester City Council and Greater Manchester Combined Authority should take every opportunity for partnership working with the huge teaching and learning and research resources in our midst at world class universities. Building on an existing successful c £500,000 bid by University of Manchester to the Natural Environment Research Centre, with backing from this group and

TFGM, to back and partner the University to create a Monitoring Supersite and to develop further projects helping Greater Manchester develop solutions to real world problems, creating powerful research groups solving real world problems.

12. Manchester City Council and Greater Manchester Combined Authority have been tasked by government with assessing Clean Air Zones but must also exhaust every alternative action that might have the same or greater effect.

We recommend adoption of quick wins, particularly those which reduce higher polluting motor traffic, including:

- Workplace Parking Levy
- Differential parking tariffs for clean vehicles, cleaner last mile delivery options including small, electric and human powered vehicles; and
- Improvements to sustainable passenger travel, walking and cycling. We do not encourage ruling any general class of measures out.

13. Manchester City Council and Greater Manchester Combined Authority must recognise the potential contribution of readily available and reasonably priced local bus, rapid bus transit, light rail and heavy rail to reducing medium and long distance driving and use resources including any future Greater Manchester Transport Fund preferentially for these and active travel modes.

14. Manchester City Council and Greater Manchester Combined Authority recognise that electric/autonomous vehicles may have a part in future transport, freight and logistics solutions in Manchester and Greater Manchester.

However we recommend some caution as while such vehicles may have no harmful tailpipe emissions they still contribute to particulate matter especially tyre and brake and road dust, each of which can be repeatedly re-suspended.

Manchester and Greater Manchester should welcome a thoughtful hierarchy, not necessarily limited only to road vehicles, including heavy goods vehicles, lighter goods vehicles, and very light and clean last mile vehicles.

15. Promoting walking and cycling and developing the pleasant places that result from prioritising people over motor vehicles will contribute to meeting and exceeding air quality targets and also help with other road harms. Like bad air these have a multibillion pound impact on the UK through costly congestion, climate change, noise, casualties, suppression of activity, and spatial effects such as severance. Manchester and Greater Manchester should commit strongly to taking the necessary steps to deliver the Mayor's and Commissioner's vision for a Greater Manchester moving efficiently and healthily as implementation plans emerge (aims summarised at 6.10.11 of the report).
16. Manchester City Council and Greater Manchester Combined Authority should devise and undertake public campaigns using Our Manchester co-production methods to support behaviour change that takes not only large steps but also makes many smaller steps which added together with the big interventions give a real change in Air Quality.

Examples of good practice, such as 'cycle recycle' schemes that encourage the introduction and safe use of cycles, including providing a cycle to keep, should be shared and promoted, especially in traditionally hard to reach communities.

17. Dr Ian Mudway of KCL should be invited to address Full Council on Air Quality and Health as soon as possible. Other guests in related fields e.g. Janette Sadik Khan, Sir Chris Boardman should be considered with the purpose of informing and energising the media, thought leaders and residents and triggering positive Our Manchester conversations about air quality and other road harms and tackling what is a public health and social equality emergency not a transport or "green" issue.

Appendix 3 - Outputs from Air Quality Conference Held on 29th November 2017 at Manchester Town Hall

The conference was attended by 50 people from across a range of sectors in the city. Following presentations from transport and public health officers, discussions took place on each of six tables about the measures that those present felt would be most effective in reducing air pollution in the city. The notes below summarise the points that those who were present made, grouped into thematic topics as far as possible.

Priority Actions Suggested:

Travel Options

1. Improve public transport
 - a. cheaper prices;
 - b. longer hours of operation;
 - c. better integration of modes;
 - d. improved reliability; and,
 - e. improved infrastructure.
2. Promote modal shift away from cars and towards public transport, walking and cycling
 - a. 'Carrot' and 'Stick' measures needed
 - b. Public transport / cycling improvements: improved safety, cheaper, more frequent, greater coverage; cleaner; more integration
 - c. Remove mileage allowances for staff
3. Plan future developments to reduce the need to travel (city centre developments), and to facilitate travel by public transport, cycling and walking
4. Promote travel planning amongst SMEs
5. Promote behavioural change in terms of car use for work; make alternative modes more convenient
6. Working from home to avoid commuting
7. Subsidise Bike purchases for low-income families
8. Walk zones by schools
9. Development of Cycling / Walking Groups
10. Walking routes – perception that there are dangers / cleanliness, which impacts on uptake; canal towpaths – lots of potential but currently unattractive and road junctions are not always pedestrian friendly
11. 'Oyster' type card needed for bus, train and tram use
12. Business / employers offering incentives, e.g. extra leave for walking / cycling
13. Increase capacity of Rail, Metrolink and park and rides, especially during peak times
14. Not enough secure cycle parking at present – risk of theft if parked on pavements
15. Improve safety / reduce anti-social behaviour on public transport
16. Encourage City Centre employers to provide incentives to staff to help improve air quality
 - a. staggered start and finish times; or,
 - b. bike to work schemes

Technology

1. Electric vehicles, including Biffa bin lorries (50% more expensive but long term gains), with associated charging and other infrastructure
2. Promote parking incentives for electric vehicles
3. Promote new technologies
4. Feasibility of using electric cars
 - a. Where should charging point locations be?
 - b. Should these be mapped (online zap-map.com?)
5. Promote electric commercial vehicles

Communication

1. Improve education relating to air quality issues from primary school to higher education
2. Explore improved communication options about the air quality problem through social media
3. Publicise information about behavioural change across different demographics
4. Live reporting of air quality levels at stations and bus stops
5. Engage the top 20 employers in the city
6. Advertise walking and cycling more – people don't think to do this
7. Talk more about improvements we want to make – bids for new metrolink carriages
8. Air quality is not widely perceived as a major issue

Highway Maintenance

1. Improve how road closures are planned / implemented to reduce congestion
2. Reduce number and impacts of roadworks by better coordination between the Council and different utilities and monitoring AQ levels before, during and after, including in relation to smooth travel flows

Freight

1. Peripheral freight distribution hubs, with electric vehicles for final stage deliveries
2. Restrictions on delivery times / HGV operation times the promotion of Electric Vehicle deliveries, such as in central London

Miscellaneous

1. Introduce a workplace parking levy; and use it to fund the creation of more open spaces
3. Encourage hospitals to be 'change leaders'
4. Construction site controls (Non Road Moveable Machinery (NRMM))
5. Green Infrastructure
 - a. screens
 - b. trees
6. Promote vehicle fleet improvements
 - a. Taxis
 - b. Buses
 - c. HGVs / LGVs
 - d. Local authority / TfGM / Companies
7. Congestion is biggest bugbear

8. Businesses validating parking tickets encourages parking, which is also too cheap
9. Mobike – extend this, but uncomfortable and heavy and still feels unsafe
10. Out of town connections are not well signposted – the Birmingham park and ride scheme is better
11. Go Local
12. Charging CAZ
13. Introduce air quality KPI into carbon reduction demonstrator project
14. Encourage small businesses to measure air quality KPI ('scope 3 emissions') as well as fuel costs in their distribution processes (e.g. where using 3rd party fleet and delivery contractors)
15. Cycle sympathetic highways design was important as was maintenance e.g. gulleys not countersunk; grid design and alignment more tyre friendly

Uber comments

- Encourage greater use of multi-mode transport over the longer term
- Encourage people to use the right type of vehicle – flexibility of electric vehicles, but challenges in terms of infrastructure, attitude and vehicle range
- Incentives for cleaner vehicles
- More access for electric vehicles
- Consistency across Greater Manchester
- Birmingham trial of 'car club for drivers'