

Transport for Greater Manchester

28th April 2016

re: Greater Manchester Low Emissions Strategy and Air Quality Action Plan consultation

Dear Sir/Madam

Manchester Friends of the Earth welcomes the opportunity to respond to the consultation on the Greater Manchester Low-Emissions Strategy and Air Quality Action Plan (GMLES).¹

Our response uses the headings outlined in the consultation form. There are some cross-cutting themes and additional issues which we wish to highlight. We have used GMLES throughout our response to refer to the consultation document.

The sections are as follows:

- About Manchester Friends of the Earth and why we are responding (Q1).
- Overall comments on the importance of emissions reduction and air quality (Q2, Q3 and Q12).
- Comments on ultra low emissions vehicles - e.g. electric cars (Q4).
- Comments on the approach to dealing with HGVs (Q5) and goods vehicles (Q14).
- Reducing emissions from buses (Q6 and Q15)
- Changing travel behaviour - including media/communications around air quality (Q7, Q17, Q19).
- Clean Air Zones / Low Emissions Zones (Q8)
- New development and links with the planning system (Q9 and Q13)
- Cycling and walking (Q16)
- Private cars
- Other priorities and feedback (Q11 and Q20)
 - a) Aviation / Manchester Airport
 - b) Air pollution impact of new road building schemes
 - c) A Low Emission Strategy and Air Quality Action Plan for All.
 - d) Air quality limits and air quality data.

Manchester Friends of the Earth recognise the regulatory and funding constraints that transport authorities, outside of London, have had to operate under. Underpinning all of the proposals and suggestions outlined in our response is a recognition that Greater

Manchester needs to take the Regulatory Powers that Transport for London has, and use these to develop a properly integrated and affordable public transport system.

Manchester Friends of the Earth believes that Greater Manchester needs to have greater control over the types and quality of buses that operate on our roads. Extending the scope of bus franchising powers will enable Greater Manchester to provide better bus service provision across the region. A properly integrated and affordable public transport system is essential to enable people to make more sustainable travel choices that meets their needs for reliable transport and the ability to get to work, school, shops or leisure facilities across Greater Manchester.

Manchester Friends of the Earth strongly supports the conclusions in the GMLES that to improve air quality in Greater Manchester that “concerted effort, potentially requiring **radical actions, is needed by all parties to reduce emissions**” and that we need a “**significant reduction in the number and length of journeys made by diesel and petrol-fuelled vehicles**” and this will not be achievable without “**radical action to clean up vehicle engines.**”

The estimates are that over 1000 people are dying prematurely each year in Greater Manchester from air pollution. It is also likely that these figures are under-estimates. These figures are far greater than for road casualties and second only to deaths from smoking-related diseases.

On 27th April 2016, the Environment, Food and Rural Affairs Committee report on Air Quality described air pollution in the UK as a “**public health emergency**”.²

Manchester Friends of the Earth strongly supports most of the proposed measures outlined in the GMLES but overall we are struck by what we consider to be a mismatch between the scale of the problem identified and the scope and scale of the proposed responses.

If, as has been suggested by the Environment, Food and Rural Affairs Committee, the UK and Greater Manchester are facing a “public health emergency” from the impact of air pollution – where is the sense of urgency and the bold, innovative solutions required to tackle this emergency?

We hope the revised Low Emission strategy and Air Quality Action Plan as well as any future Implementation Plans will adopt bolder solutions to meet the public health emergency.

Yours sincerely

Catherine Thomson, Manchester Friends of the Earth co-ordinator
Dr Graeme Sherriff, Manchester Friends of the Earth Transport campaign co-ordinator
Pete Abel, Love Your Bike

1) About Manchester Friends of the Earth and why we are responding (Q1).

Thank you for the opportunity to comment on the 'Greater Manchester Low-Emission Strategy and Air Quality Action Plan' (GMLES). The following is the response of Manchester Friends of the Earth, a Greater Manchester-based environmental campaign organisation working on a range of issues that includes sustainable transport, aviation and climate change. Our cycling campaign 'Love Your Bike' is active at the Greater Manchester level and aims to promote cycling and help to make it an attractive, accessible and fun way to get around.

Manchester Friends of the Earth's vision for Greater Manchester's transport systems in 2040 is one in which there has been substantial modal shift away from the private car and towards public transport, walking and cycling. All vehicles have cleaner engines and the majority are electric. Transport provision is affordable and well integrated with easy-to-use journey planning tools and everyone has the services they need within easy access in their district centre so that there is less need to travel. As a result of these changes the population has improved health thanks to active travel and clean air, the carbon footprint of the conurbation's transport is low, and the economy is thriving.

2) Overall comments on the importance of emissions reduction and air quality (Q2, Q3 and Q12).

Manchester Friends of the Earth welcomes that the GMLES outlines the environmental, health and social impacts of air pollution as well as the scale of the challenge, particularly for the transport sector in Greater Manchester. We agree with the following points highlighted in the GMLES:

- "The need to achieve very challenging targets for both carbon and NO₂ in the context of a growing economy means that a concerted effort, **potentially requiring radical actions, is needed by all parties to reduce emissions.**" (para 2.16, page 12) (Emphasis added).
- "While a mode shift to public transport, walking and cycling will reduce emissions, this **will not be sufficient to meet targets without radical action to clean up vehicle engines.** (para 4.10, page 20). (Emphasis added)
- "**Quite simply, a significant reduction in the number and length of journeys made by diesel and petrol-fuelled vehicles** (especially those with EURO V or older engines), within Greater Manchester is required in order to achieve the necessary reductions in emissions." (para 7.4, page 31). (Emphasis added).
- "As with other major urban areas in the UK, Greater Manchester is not forecast to comply until 2020 **unless additional action is taken.**" (para 3.10, page 15)

Manchester Friends of the Earth agrees with the GMLES assessment that the Greater Manchester Air Quality Action Plan has "**has not achieved the improvements that were hoped for**". (page 59).

The GMLES also highlights the health impacts of air pollution: "Poor air quality has a real and significant effect on people's lives, contributing to bronchitis, asthma and other

respiratory illness, as well as cardiovascular problems and cancer. Long-term exposure to air pollution is understood to be a contributory factor in deaths from respiratory and cardiovascular disease. It is likely that air pollution contributes a small amount to the deaths of a large number of people, rather than being the sole cause of the death of individuals. This health burden is estimated as an effect on annual mortality in the UK equivalent to around 29,000 deaths (2008 figures), **with the estimate for Greater Manchester being over 1,000.**" (para 2.2, page 10). (Emphasis added).

It should be noted that the estimate of over 1000 deaths each year in Greater Manchester is based on deaths attributable to particulate pollution (PM2.5). We are still awaiting publication of the COMEAP³ estimates for deaths attributable to Nitrogen Dioxide (NO₂). However, it is likely that the combined impacts of both particulate and NO₂ pollution will mean that the annual deaths from air pollution in Greater Manchester will be much higher than 1000. The GMLES needs to take account of this.

The GMLES identifies both the serious impact of air pollution and the need for "radical action **to clean up vehicle engines**" and that a " **significant reduction in the number and length of journeys made by diesel and petrol-fuelled vehicles**" is required. Particularly given the evidence that diesel cars' emissions are far higher in real life conditions than in laboratory tests.⁴

However, in terms of 'actions' the GMLES proposes that "while **the sheer volume of car traffic means that these emissions must be tackled over the long-term**" the "**greatest short-term impact of measures would be felt by focusing on heavy goods vehicles and on buses on key routes into town and city centres.**" (para 4.15, Future Focus, page 21).

The GMLES does not identify what is meant by "short-term" but it should be noted that the legal deadline for meeting the European Union air quality regulations has already passed and we do not accept that the Greater Manchester 2020 target for both CO₂ and NO₂ reductions should be considered as "long-term".

Manchester Friends of the Earth believes that the GMLES has 'ducked' the harder challenge of tackling the largest contributors to air pollution in Greater Manchester namely, single-occupancy car use for short journeys throughout the conurbation. This is very disappointing.

2.1 Shifting the focus from the need to reduce Climate Change emissions?

Manchester Friends of the Earth are very concerned that the GMLES appears to suggest that actions should be focused on air pollution and away from actions to reduce CO₂ emissions. Both of these agendas are important.

The GMLES proposes that: "**Given the need to meet EU limits for NO₂ as soon as possible, the short-term focus will need to be on NO₂.** Many of the measures that will help achieve this will also be of some benefit in reducing carbon and particulates, which will be the focus over the longer-term." (para 4.12, page 21)

The Greater Manchester Climate Change Action commits the region to a CO₂ reduction target of 48% by 2020.⁵ Following the Climate Change agreement signed by the UK and

170 other countries in Paris last December, it is likely that larger reductions will be required than the 80% by 2050 as required by the Climate Change Act. Indeed, Kevin Anderson, Deputy Director at the Tyndall Centre has estimated that the European Union will need to adopt an 80% reduction by 2030.⁶

There appears to be a mismatch between the GMLES analysis and the scale of the challenge and the proposed actions.

For example, the GMLES recognises that: “Planned changes to public transport, incentives to change behaviour and action to encourage cycling and walking **will not decrease private car usage at the rate needed to meet carbon reduction targets.**” The GMLES also highlights that recent analysis indicates that “even if all currently proposed measures are delivered, there is still a shortfall of over 1.68million tonnes in achieving the 2020 target. **Therefore, Greater Manchester needs to rapidly deploy additional measures to decarbonise private cars to meet the shortfall.**” (para 4.7, page 19) (Emphasis added).

It is difficult to reconcile the statement that “**If all currently proposed measures are delivered, there is still a shortfall of over 1.68million tonnes in achieving the 2020 target**” with the proposed “short-term” focus on NO2 through till 2020.

Manchester Friends of the Earth believes that all Greater Manchester strategies need to include a focus on achieving, and exceeding, the climate change emissions reduction targets.

3. Comments on ultra low emissions vehicles - e.g. electric cars (Q4).

Manchester Friends of the Earth supports the proposals to increase the number of electric vehicles and publicly available charging points as outlined in the GMLES which states “we need a major increase in the number of electric vehicle charging points, but we argued that more charging points are needed. There are currently 200 publicly available points in the conurbation but a study of Lyon, which is similar in terms of size and population density, suggests that a network of some 700 publicly available points would be effective. **The number of charging points in homes and businesses can also be increased through planning conditions.**” (GMLES, para 5.6, p22)

Electric vehicles can help reduce carbon emissions (CO₂) and other pollutants such as nitrogen dioxide (NO₂) and particulates. Obviously, the reductions are greatest if the electricity is supplied from a 100% renewable source. But, even if the vehicles are charged from grid electricity the CO₂ emissions will still be less than from existing diesel or petrol cars. The Committee on Climate Change recommended that the target for the carbon intensity of electricity generation in the UK in 2030 should be 50g CO₂/kWhr. At this level the typical electric vehicle will achieve less than 8g CO₂/km compared to the typical 130g/km for a fossil fuel car.⁷

However, there are currently only around 1000 users registered with the Greater Manchester Electric Vehicle (GMEV) scheme which is a small fraction (less than 0.1%) of the 1.2 million cars and vans available to Greater Manchester households (Census 2011).

Even with large increases in the number of electric vehicles in Greater Manchester there is still a long way to go before they make any substantial impact on air pollution and climate emissions in Greater Manchester.

Manchester Friends of the Earth would also emphasise that electric vehicles are not a panacea for the other major issues associated with motorized transport. These extend far beyond air quality and climate emissions.

For example, as the GMLES identifies, significant contributions to particulate pollution are “also made by tyre and brake wear, road surface wear and the re-suspension of particles. These sources will not be improved by Euro engine standards.” (para 3.12, page 16). Increasing the use of electric vehicles will also do little to help reduce this type of air pollution.

Furthermore, planning cities for motorized traffic encourages 'hypermobility' and urban sprawl. Electric vehicles on their own will do little to solve the problems of physical inactivity, increased obesity, traffic congestion or the amount of urban space allocated to vehicles. Cars are typically used for an hour or two each day. For the other 92% of the time they are often parked on roads, in front of schools or block pavements to the detriment of pedestrians, people with disabilities and people on bikes.

4) Comments on the approach to dealing with HGVs (Q5) and goods vehicles (Q14).

Manchester Friends of the Earth supports the proposed actions to reduce HGV emissions and to manage freight and goods vehicles subject to the following points.

With reference to the statement “The purpose of this strategy is to consider current Greater Manchester delivery, servicing and logistics activities and set out the ambitions for the region beyond 2025.” (Actions for Freight and Goods Vehicles, page 70):

- More urgency needs to be given to this strategy. European Union air quality limits should have been met in 2010, we cannot wait until beyond 2025. Even when we have met the EU limits we will still need to do more work to improve air quality further and we need to push to implement many of these actions as a matter of urgency.

We would like to see the following emphasised in GMLES:

Urban Distribution Centres (UDCs) and Urban Consolidation Centre UCCs:

- That research is undertaken to ensure that UDCs and UCCs wouldn't lead to increased flow of HGVs leading to air quality limits being breached.
- That measures are put in place to promote and facilitate 'last mile' deliveries from UDCs and UCCs being made by Zero emission vehicles (bike, electric bike, ULEVs).
- That UDCs and UCCs are not located within critical distance of schools, hospitals, care homes, sheltered housing etc to reduce any impact on the most vulnerable people.

- That all medium and large employers, along with GM councils as stated in GMLES 7.3, are encouraged to stop personal workplace deliveries and to encourage use of parcel delivery/ consolidation centres.

Freight information channels:

- To incorporate an alert if safe levels have been breached. Yellow-amber-red warnings like for snow and high winds if forecast weather will lead to high pollution. Publicly available pollution data to be as close to real-time as possible.

5) Reducing emissions from buses (Q6 and Q15)

Manchester Friends of the Earth recognise the regulatory and funding constraints that transport authorities, outside of London, have had to operate under. Underpinning all of the proposals and suggestions outlined in our response is a recognition that Greater Manchester needs to take the Regulatory Powers that Transport for London has, and use these to develop a properly integrated and affordable public transport system.

Manchester Friends of the Earth supports the bus improvement actions in the GMLES that seek to:

- i. Utilise new transport legislation to support the adoption and compliance of an appropriate set of standards across the bus network in Greater Manchester.
- ii. Emission testing for new vehicles to ensure they achieve the required emissions standard in real-world conditions. (GMLES, page 76)

Manchester Friends of the Earth believes that Greater Manchester needs to have greater control over the types and quality of buses that operate on our roads. Extending the scope of bus franchising powers will enable Greater Manchester to provide better bus service provision across the region. A properly integrated and affordable public transport system is essential to enable people to make more sustainable travel choices that meets their needs for reliable transport and the ability to get to work, school, shops or leisure facilities across Greater Manchester.

Manchester Friends of the Earth also supports the actions to reduce emissions from buses on key urban corridors and proposals for buses and the bus network subject to the following points.

We would like to see emphasis on the following in GMLES:

Bus priority programmes

- The success of the guided busway between Leigh- Salford-Manchester should be reviewed and replicated as appropriate across the region.

We argue that Action 3.1 'buses with the lowest emission profiles will be routed through areas suffering the highest pollutant concentrations' is proposing to move pollution

elsewhere rather than reducing it.

Bus improvements:

- The air quality working group chair at the Environmental Industries Commission, Mike Galey, recommended that the retrofitting of Euro 3 standard vehicles is one of the quickest and most effective measures to tackle air pollution, with the cost around £10,000 per vehicle, with the 'payback' of this money in human health terms is around two years. He also noted that retrofitted Euro 3 buses were actually more efficient than Euro 5 buses. In light of this, the measures proposed to clean up Yellow School Buses should be expanded to all Euro 3 III buses.⁸
- A date should be set for achievement of 100% low emission buses across Greater Manchester.

To support this ask, we note that since 2013, new buses are required to have engines that meet the Euro 6 standard. This has a Nitrogen Oxide (NOx) limit 80% lower than for Euro 5 engines and is therefore better for air quality. However, in Greater Manchester only 0.7% of the current bus fleet are fitted with Euro 6 engines.

According to TfGM data the Greater Manchester bus fleet comprises vehicles with the following diesel engine standards:

Engine standard	Number of buses	Percentage of GM bus fleet
Euro 2-3	887	39.7%
Euro 4	344	15.4%
Euro 5	946	42.3%
Euro 6	15	0.7%

In London all TfL buses met the Euro 4 standard for PM10 and NOx by 2015. Around 1,800 Euro III buses are being retrofitted with selective catalytic reduction (SCR) equipment to reduce their NOx emissions by up to 88 per cent.

There has been strong cross-party support from GM local election candidates in response to the question in the Manchester Friends of the Earth local election survey: "Would you support the replacement or retrofitting of buses with diesel engines below Euro 4 standards by 2020?".⁹

Other points relating to buses:

- In addition to driver training proposed for hybrid vehicles, which currently make up approx. 10% of the bus fleet in GM, offer driver training for the more common but less efficient buses to ensure they are driven as efficiently as possible.
- Consider subsidising buses to areas of high employment with poor public transport links to minimise car traffic there.
- To investigate the feasibility of having park and ride schemes with low emissions buses.

6) **Changing travel behaviour - including media/communications around air quality (Q7, Q17, Q19).** Do you agree with proposals to encourage people to consider alternatives to car travel?

Convincing people to change their travel habits is a difficult task, especially when so many people feel that it is their right to drive a car and attach a lot of their self worth to doing so. In addition, air pollution is a difficult sell, having been dubbed the invisible killer, being difficult to quantify and visualise in people's day to day lives.

However, air pollution is an urgent issue that each adult in Greater Manchester must play a role in tackling and it is an absolute necessity that the population is educated to this end.

This idea is supported by King's College London professor Dr Ian Mudway who believes that public awareness is key to limiting exposure and also gaining public support for air pollution measures.¹⁰

Changing travel behaviour and awareness-raising are linked. Every person living in Greater Manchester is a potential victim of air pollution. Changing behaviour will not be achieved unless there is a concerted effort to inform and educate the general public through all media outlets. The policies and proposals in the GMLES need to be understood and agreed if people are expected to change established patterns of behaviour.

Manchester Friends of the Earth believes that the approach proposed in the GMLES does not go far enough and we would call for TfGM and partners to launch a multi-media high-quality publicity campaign to educate the public about the dangers of high levels of air pollution, including messaging specifically targeted at car drivers, along with information on what positive action they can take to help tackle the problem.

In addition, we would encourage inclusion in the GMLES of:

- An increase in the number of air quality monitors across Greater Manchester to increase our understanding of air quality issues.
- An Air Quality Monitoring database. We would encourage the opening up of information on this database to the public, rather than just Local authorities and consultants.
- Pollution Alert services. We welcome the introduction of a Pollution Alert service but ask that it include a contingency plan for high-pollution periods. For example: text messages to signed up individuals and discounted public transport fares for those at high risk.
- GreatAir Manchester website. We welcome the announcement in the GMLES that TfGM are taking over responsibility for the GreatAir Manchester website from the GM councils. Information on the website needs to be updated and improved.
- Variable messaging signs. These could be used to restrict car traffic when pollution is high
- Annual update of progress - we support the plan to provide a report outlining progress

on tackling air pollution. The information needs to be publicly available.

- Online mapping and travel information – we welcome the proposal in the GMLES to improve the availability of online information regarding travel in Greater Manchester and would encourage the publicizing of it widely to all commuters, including car drivers.
- Engagement with business within Greater Manchester. We would encourage closer working with business to reduce the need to travel; considering the role of teleconferencing and working from home, altering work and therefore travel times to reduce congestion on the roads and offering free or discounted travel to workers who do not use a private car to commute to work.
- Introduction of an integrated ticketing system that is multi-modal, universal across all providers and affordable.

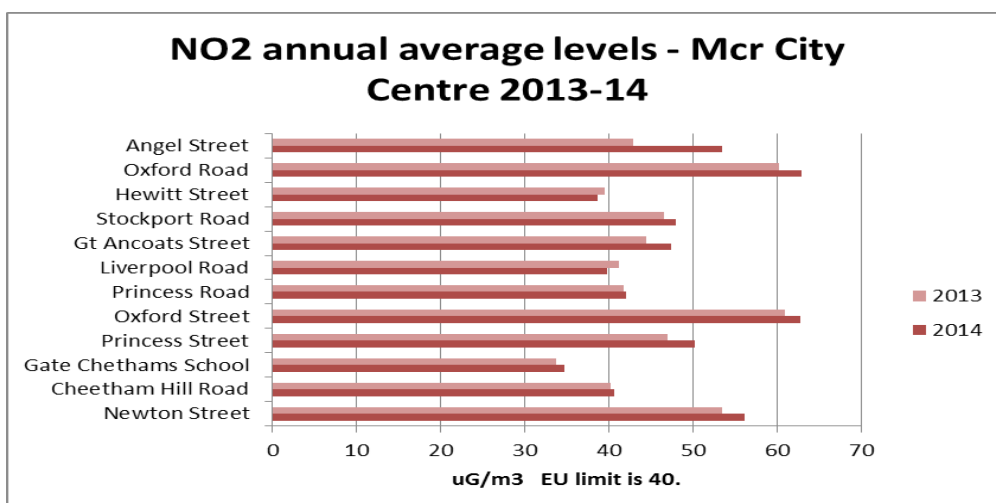
7) Clean Air Zones / Low Emissions Zones (Q8)

The GMLES describes how “Clean Air Zones (CAZs) are seen by central Government as a key measure to improve air quality in major urban areas. In a CAZ, vehicles that do not meet specified minimum emissions standards are charged for entering the area. This can be targeted at the types of vehicle that are seen as the major problem, such as buses and HGVs. The charge for non-compliant vehicles provides an incentive for operators to upgrade their fleets.” (para 5.33, page 26).

However, the EFRA report highlights the Parliamentary Committees’ finding that “Defra’s plans for new Clean Air Zones to cut nitrogen dioxide pollution give councils insufficient control over implementation: ‘one size fits all’ Zones must not be imposed on cities from Southampton to Leeds. Communities must be able to tailor controls to meet their own circumstances, for example to charge vehicles to access Zones at certain times of day or to target specific bus routes.”¹¹ (page 3)

Manchester Friends of the Earth supports the proposal that “TfGM will undertake an appraisal of the effects of Clean Air Zones (CAZs).” (page36).

The graph below presents Manchester City Council diffuser tube data that highlights how NO₂ levels on City Centre streets were failing to meet European Union annual mean limits and worsened between 2013 and 2014.



Manchester Friends of the Earth also supports the proposal that TfGM investigates the potential for Low Emission Zones. However, we also want to see other ambitious approaches investigated such as more pedestrian zones and banning HGVs from city and district centres.

Given the scale of the air pollution challenge we need national Government to provide the resources to facilitate the introduction of Clean Air Zones in high air pollution areas within Greater Manchester.

There has been cross-party support for the Local Election survey question “Would you support the introduction of a Low Emission Zone or Clean Air Zone in your District/town centre?”¹²

8) New development and links with the planning system (Q9 + Q13)

Manchester Friends of the Earth agrees with the GMLES analysis that a “key issue of concern that has affected air quality in regions throughout the UK has been the effect of **development creep, whereby numerous small developments have been approved in isolation, leading to a potentially significant cumulative impact**” and that there is a need to “agree common guidance across the 10 planning authorities of Greater Manchester and/or develop a toolkit to help them assess development proposals and identify the mitigation needed. This would include, for example: the appropriate number of charging points for electric vehicles; sufficient cycle parking; access to public transport; detailed delivery and servicing plans which encourage activities outside of peak times; travel plan incentives to encourage the use of low-emission vehicles and sustainable transport; and guidance on setting back or screening residential development from major highways where air quality is an issue.”

Manchester Friends of the Earth believes that this ‘cumulative impact’ approach should also be applied to all new major infrastructure schemes such as new-road building and industrial development proposals.

We therefore support the proposals outline in the GMLES to introduce the following:

Cumulative Development Database: A centralised database of planning applications and air quality assessments will be managed by TfGM, to better understand and manage the cumulative effects of several developments.

“All planning applications should incorporate a review of other local applications (either pending or approved) and incorporate the combined effects into the assessment scenarios. Therefore, air quality assessments for significant new developments (triggered by the IAQM/EPUK guidance) will be recorded on a Geographic Information System (GIS) by TfGM, which may be accessed by local authority air quality officers and used by local authorities or developers to appraise potential effects that may arise due to multiple developments in proximity to each other. It is not the intention that TfGM will take on any responsibility for planning regulation, but will provide the database resource for use by other parties.” (page 65)

Development Planning Guidance: GM councils to adopt the most recent IAQM air quality planning guidance, to help ensure that planning applications consider impacts consistently, and opportunities to improve air quality are realised.

Construction Management Guidance: Greater Manchester (GM) councils to adopt the IAQM Guidance on the Assessment of Dust from Demolition and Construction sites – to ensure appropriate mitigation controls are conditioned.

9) Cycling and walking (Q16)

We welcome the inclusion of active travel (walking and cycling) in GMLES. As almost zero emission modes of transport, they are essential components of modal shift away from private car use and towards more sustainable options. Encouraging walking and cycling not only helps to reduce emissions and improve air quality, it is also the case that air pollution, particularly in the summer, can make walking and cycling an unattractive option.

We would like to see a stronger commitment of 20% of journeys under 5 miles being by bike by 2020. This is more ambitious than the target set out in the GMLES (which call for an increase from the current 2% to 10% of all journeys by 2025) and has the backing of the 28 signatory organisations of 'Getting Moving: A Cycling Manifesto for Greater Manchester'. This target can only be achieved through the creation and maintenance of an attractive environment for walking and cycling. In order to achieve this target we need to see:

- Commitment to ongoing funding for investment in cycling of at least £20 per head of population as called for by the All Parliamentary Cycling Group in 2013. Whilst GMLES gives examples of specific one-off Government funding, these are insufficient for the development of the coordinated cycle network that the conurbation needs. TfGM therefore needs to investigate more creative ways of securing an ongoing travel fund, rather than rely on national Government funding.
- High standards of design of cycle infrastructure that is safe, coherent, direct, comfortable, attractive and anticipates future growth in cycling journeys.
- Promotion and support of cycle logistics, particularly for last-mile deliveries, that is integrated with Urban Distribution Centres to reduce the need for HGVs to enter regional and district centres.
- Cycle infrastructure should be embedded into the planning process such that all new developments have quality covered cycle parking and residential units have spaces for bike storage.
- Continuing rollout of a default 20mph limit to improve the safety of walking and cycling and make a more attractive environment for active travel.
- The creation and enforcement of a ban on pavement parking, as is the case in all 32 London Boroughs. Pavement parking not only damages pavements but also the amount of safe walking space, particularly for people with mobility problems, parents with pushchairs and older people.

10) Private cars

The GMLES reports that the private car makes the biggest contribution to air pollution in Greater Manchester and that there is a need to reduce both emissions per car and the total numbers of car journeys. (p.49 and p.56).

The GMLES states that “Private cars typically represents >70% of the vehicle movements on most roads, and so the influence of cars is significant in most areas where high pollutant concentrations have been identified. Furthermore, the large proportion of cars also influences areas of congestion due to the road space taken up by the vehicles”.

Manchester Friends of the earth supports the proposal that “actions to reduce emissions from private cars should target the whole fleet with less focus on the Key Priority Areas identified for HGVs and buses, and the **Key Priority Areas for cars, should include all roads where the pollutant concentrations exceed 35µg/m³ and have properties within 25m.**” (para 3.6.2, page 56)

Manchester Friends of the Earth would agree with this assessment, which is supported by Professor Frank Kelly of King's College London. He recommends that there needs to be a 20-30% reduction in car use / traffic to address air pollution in the UK.¹³

We acknowledge that encouraging private car users to reduce their car use is a difficult task and that TfGM may have a limited role when compared to other measures. However, Manchester Friends of the Earth believes that unless further efforts than those outlined in the GMLES are put in place to reduce single-occupancy, private car use, Greater Manchester will be unable to lower its air pollution levels to the legal limits.

While we welcome the proposed actions put forward in the GMLES, which focus on increasing the number of Electric Vehicles (EVs), discouraging Council officers from using private cars for work journeys and a review of the school run, a lot more could be done.

We accept that many of the actions outlined in other sections of the GMLES and in our response such as encouraging cycling and improving the bus network, will contribute to replacing car journeys. However we feel that more radical actions must be taken to reduce the number of single occupancy private car journeys in Greater Manchester.

Considering the GMLES proposals in turn,

- Electric vehicles - the current number of EVs in Greater Manchester is estimated to be 1000. Although there has been a large uptake in recent years, this still dwarfs the number of combustion engines which sits at approximately 1.2 million. While we welcome the move towards EV, given the small base we are starting from it is unlikely this will have any real impact on emissions for the foreseeable future. Furthermore replacing diesel and petrol cars with electric models will not help ease congestion and will allow the public to think that we can continue with “business as usual”.
- We welcome the move to discourage council staff from using their private cars for work business with the introduction of car parking levies and provision of viable low emission alternatives. This should be expanded further to include other businesses and organisations across Greater Manchester, especially those in the public sector. Oxford

Council, for example, has elected to start charging higher rates for business parking with the aim of discouraging private car use. In addition Nottingham Council have implemented a Workplace Parking Levy with the funds going to finance Public transport initiatives. Greater Manchester should be encouraged to do the same.

- As well as 'sticks' such as increased charges and levies - incentives such as discounted public transport travel passes would make this transition easier.
- Manchester Friends of the Earth definitely agree that congestion around schools at the beginning and end of the day is a serious issue and welcome the addition of the 'school run' as an area that needs attention. However, we are underwhelmed by the action to "undertake an appraisal". This is a vague action, requires a timeline and identified possible solutions.
- There are plenty of examples of good practice from other cities regarding school transport including walking buses, better cycle infrastructure, and education for parents. TfGM should research these and identify lessons that can be applied in Greater Manchester.
- Manchester Friends of the Earth welcomes the introduction of 20 mph speed limits where people live and work in Manchester and would encourage all Greater Manchester local authorities to implement these schemes. Slowing down traffic and encouraging smoother driving would have the effect of reducing pollution with more efficient use of vehicles and producing a traffic environment that made cycling and walking a more desirable option. We would encourage TfGM to work with all GM boroughs to introduce 20mph zones, and include other traffic calming measures and better enforcement of these incentives.
- Car clubs are listed in the GMLES as an area that TfGM will review. We welcome this and would encourage this work to be expanded to the role that car pools within companies and communities, and car sharing schemes, could play in reducing private car journeys.

Other items related directly to private car use but not discussed in the GMLES include:

Peak time congestion - vehicles sitting in traffic jams are a major contributor to poor air quality with most of these vehicles consisting of single-occupancy private cars on major arterial routes.

The actions highlighted in other sections of the GMLES will hopefully contribute to a reduction in car numbers. However, given the scale of the issue all options should be considered as to their ability to reduce single-occupancy car journeys, which currently account for 80% of the cars on key commuter routes in the morning peak. (page 59).

- Park and ride. While there may be issues related to the use of Park and Ride such as displacing car travel not replacing it, and the use of green belt it is possible that well-sited developments could have a place. There are examples of Oxford using this system well and we feel these options should be explored further.
- Consideration of the use of motorway lanes for sole use by multi-occupancy cars.

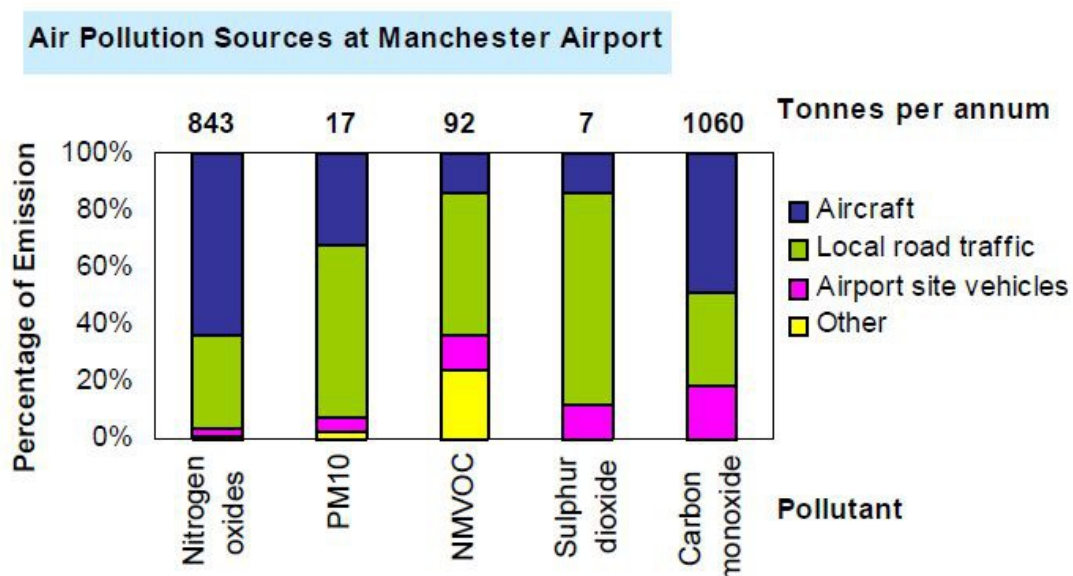
- Investigating the approaches used by other cities in the UK and Europe to reduce car use during periods of dangerously high pollution.
- Reward positive action to make low pollution journeys. e.g. free tram travel into the city centre rather than free car parking, which recently happened to 'reward' shoppers for their patience with the roadworks in the City Region.
- Driving ability - Greater Manchester is reported to have one of the highest levels of “banned drivers” outside of London¹⁴ and has also been reported to have one of the highest level of drivers who admit to driving over the speed limit.¹⁵ This causes serious safety and nuisance problems for local communities as well as contributing to air pollution. The GMLES recommends mandatory training for drivers of the new hybrid and EVs. Manchester Friends of the Earth believes that driver awareness classes should be provided for all professional drivers and be mandatory for drivers found to be driving dangerously.
- Tougher monitoring and penalties for those who break the road speed limits should be considered.

11) Other priorities and feedback (Q11 and Q20)

a) Aviation / Manchester Airport

With the exception of references to the A6 to Manchester Airport Relief Road (MARR) scheme and the Metrolink extension to the Airport, the GMLES makes no comment on the air pollution generated by Manchester Airport – either by ground operations or from aircraft.

The ‘Air Pollution sources at Manchester Airport’ chart shows that 60% of Nitrogen Oxides (NOx) pollution at Manchester Airport was due to aircraft.¹⁶



This would indicate that some 500 tonnes of NOx are produced from aircraft at Manchester Airport.

In 2010, the total NOx produced from road transport sources in Greater Manchester was 12,876 tonnes. (Table 1: Road Transport Sources (Tonnes/Year), 2010) (GMLES, page 14).

Table 1: Road Transport Sources (Tonnes/Year), 2010 (Emissions Inventory for Greater Manchester - EMIGMA)

Pollutant	Motorways	Other Major Roads	Minor Roads	Other*	Total
Carbon	385,231	574,877	35,083	21,843	1,017,034
NOx	5,039	6,852	364	621	12,876
PM ₁₀	558	788	54	66	1467

* includes extra emissions from starting up/cooling down engines and combustion of waste lubricants

Currently, 500 tonnes of NOx produced from aircraft would comprise approximately 4% of road transport emissions. However, the Transport for Greater Manchester 2040 Vision states that “Transport investment needs to support the airport’s ambition to grow from the current (2013) 20 million passengers to 55 million”.¹⁷

This would entail a 2.75 fold increase in passenger numbers. If this was reflected in a similar increase in aircraft flights the NOx emissions from Manchester Airport would increase to 1375 tonnes – or approximately 10% of the road transport NOx emissions (2010 figures).

With only limited scope for reducing emissions from jet engines, it appears quite possible that airport capacity in the UK may become constrained by air-quality legislation.

Manchester Friends of the Earth believes that any credible and effective Low Emission Strategy and Air Quality Action Plan must address both the CO2 emissions and other air pollution created by Manchester Airport.

b) Air pollution impact of new road building schemes

Manchester Friends of the Earth notes that the GMLES identifies a number of Growth and Reform Plan Infrastructure Schemes that “**have been identified that are expected to achieve beneficial local air quality impacts, and which support one or more of the actions defined in this AQAP.**” (page 112.) (Emphasis added).

However, we note that the GMLES does not mention many of the other road infrastructure schemes being funded via the Growth and Reform Plan. For example, South Heywood Area Wide Improvements, Wigan Gateway A49 Link, Wigan Gateway M58 Link, MSIRR Improvements – Great Ancoats Street, Stockport Town Centre Accessibility Package amongst others.¹⁸

Can it therefore be inferred that the Growth and Reform Plan Infrastructure Schemes not identified in the GMLES will have negative local air quality impacts?

Manchester Friends of the Earth are concerned that many of these Infrastructure schemes will result in increasing air pollution within the local areas or simply displacing it to other areas – possibly outside the Greater Manchester LAQM area.

For example, in the DEFRA report “Air Quality Plan for the achievement of EU air quality limit value for nitrogen dioxide (NO₂) in Greater Manchester Urban Area (UK0003)” Stockport Council reported that with regard to the SEMMMS Relief Road:

“Emissions will be displaced away from receptor points within the AQMA along the A6 in the south of Stockport. Including removal of some freight off local road network.”¹⁹

This tends to suggest that air pollution will not be reduced, but simply displaced away from the monitoring station.

The Air Quality report for the Stockport Town Centre Access Plan (TCAP) stated that the scheme is: **“expected to result in a net financial disbenefit in relation to changes in NO_x emissions”** and that the “total net present value (£) of change in air quality is expected to be £-326,898 (central estimate), **representing an overall net disbenefit with the Scheme.**”²⁰ (emphasis added).

A review of the SEMMMS Air Quality Assessment found that the scheme would increase air pollution in Disley. Stating that the “most important issue to consider is the scale of the impact of the scheme in Disley, which is underrepresented in the ES [Environmental Statement] . At The Crescent, annual mean nitrogen dioxide concentrations of 50-60 µg/m³ have consistently been measured at the façade of residential properties and the scheme is expected to increase concentrations by more than 4 µg/m³. **These concentrations are already significantly above the air quality objective of 40 µg/m³ and the increase expected as a result of the scheme is substantial.**” (para 3.1) (emphasis added).

The Review also found that “With the scheme in place, annual mean concentrations at The Crescent are likely to increase above 60 µg/m³. Defra considers that where annual mean concentrations exceed 60 µg/m³, there is a risk that the 1-hour nitrogen dioxide objective would also be exceeded.” (**Scale of Impact in Disley, para 3.3**)

However, the review highlighted that Disley “falls within the North West and Merseyside zone (UK0033), whereas the majority of the improvements identified as a result of the scheme are within the Greater Manchester Urban Area agglomeration (UK0003).” (para 213).²¹

Once again, a road building infrastructure scheme would appear to be displacing or relocating air pollution rather than reducing it.

Manchester Friends of the Earth is not alone in seeing air quality concerns as a reason to reject plans for road building and widening. The Highways Agency recently ruled out hard shoulder running between junctions 8 and 18 of the M60, covered by the Greater

Manchester AQMA, because of the detrimental impact it would have on air quality. In a precedent-setting decision, **the Agency's environmental assessment concluded that allowing more cars to use the road between Sale and Swinton would breach UK and EU standards protecting public health and the natural environment.**

In their consultation report, the Highways Agency stated that: "We looked extensively at the option to provide all-lane running on the M60 section between junctions 8 and 18. However, our environmental assessment concluded that creating this improvement would result in an increase in traffic using the motorway which would then have a detrimental affect [sic] on air quality. Poor air quality is a concern for the UK and across much of Europe, despite air being cleaner now than at any time since the industrial revolution" and that: "the EIA has demonstrated that implementation of the proposed development is expected to result in a **small increase in regional emissions associated with increased vehicular use** of the road network." (7.2.14)²² (emphasis added).

The Highways Agency concluded that: "**There are UK and European standards designed to protect human health and sensitive ecological habitats which we cannot ignore**; as a result we are unable to take this proposal of making the hard shoulder available to traffic on this section at this time. We are committed to delivering solutions to minimise the air quality impacts resulting from traffic using our network and are working to develop further solutions that will help improve this section of our network that comply with statutory air quality limits." (emphasis added).

The European Union Air Quality Directive (2008/50) imposes binding emissions limits values on Member States in relation to nitrogen dioxide. The Supreme Court judgement against the UK Government in March 2015 means that the UK must set out measures that enable delivery on obligations on air quality as soon as possible.

Manchester Friends of the Earth agrees with the GMLES analysis that a "key issue of concern that has affected air quality in regions throughout the UK has been the effect of **development creep, whereby numerous small developments have been approved in isolation, leading to a potentially significant cumulative impact**". This argument can equally be applied to the cumulative impact of individual road schemes.

Manchester Friends of the Earth believes that new road schemes which would lengthen the time taken to meet the Air Quality Directive and UK legal commitments, or make it impossible to achieve standards of Air Quality should not be approved.

c) A Low Emission Strategy and Air Quality Action Plan for All.

The Greater Manchester Climate Change Strategy makes it clear that the strategy does not just belong to the local authority sector. The document states that: "Our strategy will guide the actions of, and be owned by, the Association of Greater Manchester Authorities (AGMA), our Local Enterprise Partnership (LEP), the Greater Manchester Combined Authority (GMCA) and our ten District Councils will drive our low carbon future **alongside countless partners from all sectors.**"²³ (Emphasis added).

However, the GMLES make little, or no, reference to the role that other large public sector employers such as the NHS, Universities or Higher Education as well as the private and community sectors can, and must, have to achieve radical reductions in both climate change emissions and air pollution. We would like to see ways of involving this broader stakeholder group mentioned in GMLES.

d) Air quality limits and air quality data

The World Health Organization 'Review of evidence on health aspects of air pollution' report published in 2013 highlighted that as the "long-term mortality studies have all included populations exposed in part to annual average NO₂ concentrations of well below the current WHO air quality guidelines of 40 µg/m³, or even been conducted over a range almost entirely below the air quality guidelines, **it would be wise to consider whether the guideline should be lowered at the next revision of the guidelines.**"

The results of these new studies provide support for updating the current WHO air quality guidelines for NO₂, to give: (a) an epidemiologically based short-term guideline; and (b) an annual average guideline based on the newly accumulated evidence from outdoor studies. In both instances, this could result in lower guideline values.²⁴

Therefore, Manchester Friends of the Earth welcomes the implicit 'precautionary principle' aim in the GMLES to seek to reduce NO₂ pollution to 35µg/m³ levels – below the European Union mandated limit of 40µg/m³.²⁵

Manchester Friends of the Earth also welcomes the proposal that "TfGM will create and curate a database of air quality monitoring data that may be used and reported by local authorities and consultants." (12.7, page 94)

We would also request that TfGM makes the NO₂ diffuser tube data collected by all Greater Manchester local authorities publicly available.

Manchester Friends of the Earth
28th April 2016.

Endnotes

¹ <http://www.tfgm.com/gmles/Documents/GM%20LES%20AQAP%20public%20consultation%20document.pdf>

² See page 3. <http://www.publications.parliament.uk/pa/cm201516/cmselect/cmenvfru/479/479.pdf>

³ <https://www.gov.uk/government/groups/committee-on-the-medical-effects-of-air-pollutants-comeap>

⁴ <http://www.theguardian.com/business/2016/apr/21/all-top-selling-cars-break-emissions-limits-in-real-world-tests>

⁵ http://www.greatermanchester-ca.gov.uk/download/meetings/id/515/item_3_-_climate_change

⁶ <http://kevinanderson.info/blog/letter-to-the-pm-outlining-how-2c-demands-an-80-cut-in-eu-emissions-by-2030/>

⁷ <https://www.foe.co.uk/blog/four-things-about-electric-vehicles>

⁸ <http://www.airqualitynews.com/2014/06/26/national-lez-framework-needed-committee-told/>

⁹ See <http://www.manchesterfoe.org.uk/election-survey-2016-local-parties/>

¹⁰ <http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/environmental-audit-committee/action-on-air-quality/oral/11101.pdf>

¹¹ See page 3. <http://www.publications.parliament.uk/pa/cm201516/cmselect/cmenvfru/479/479.pdf>

¹² <http://www.manchesterfoe.org.uk/election-survey-2016-local-parties/>

¹³ <https://www.foe.co.uk/sites/default/files/downloads/air-pollution-briefing-21993.doc>

¹⁴ <http://www.driving.co.uk/news/almost-20-banned-drivers-caught-behind-the-wheel-every-day/>

¹⁵ Drivers in speeding 'epidemic'

<http://www.manchestereveningnews.co.uk/news/greater-manchester-news/drivers-in-speeding-epidemic-1057005>

¹⁶ <http://www.magworld.co.uk/educationpack/downloads/Air+Quality+Data+Sheet.pdf>

¹⁷ <http://www.tfgm.com/2040/Documents/Large-print-GREATER-MANCHESTER-TRANSPORT-STRATEGY-2040.pdf>

¹⁸ Item 10. Greater Manchester Growth Deal Transport Update, 27 November 2015

¹⁹ Stockport Metropolitan Borough Council_1. Delivery of SEMMMS Relief Road Reduction of use of other roads and so emissions on those roads in AQMA to decrease. Implementation Start date: 2015. Expected end date: 2017 (Page 79).

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/485691/aq-plan-2015-greater-manchester-urban-area-uk0003.pdf

²⁰ December 2014. Major Scheme Business Case – TAG Unit A3

http://www.stockport.gov.uk/2013/2978/8803/998531/app_e1_stcap_laq_report

²¹ http://www.semmms.info/140683/435117/835670/975859/obj_50.02

²² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/255525/M60_J8_-_M62_J20_MMM_Consultation_Document_SI_November_final_061113_1030_doc_attachment_.pdf

²³ <http://media.ontheplatform.org.uk/sites/default/files/GM%20Climate%20Change%20Strategy.pdf>

²⁴ Review of evidence on health aspects of air pollution – REVIHAAP Project. Technical Report, 2013.

http://www.euro.who.int/__data/assets/pdf_file/0004/193108/REVIHAAP-Final-technical-report-final-

[version.pdf?ua=1](#)

25

<http://ec.europa.eu/environment/air/quality/standards.htm>