

**LIVERPOOL CITY REGION COMBINED AUTHORITY
OVERVIEW AND SCRUTINY COMMITTEE**

**REVIEW INTO AIR QUALITY ACROSS
THE LIVERPOOL CITY REGION**

FINAL REPORT BY THE TASK AND FINISH GROUP

1 Chair's Introduction

This review was chosen by Members in recognition of the air quality issues which were evident across the Liverpool City Region, with 11 Air Quality Management Areas in place. Furthermore, this review sought to examine and challenge the Combined Authority's strategic role in addressing poor air quality across the City Region.

This Task and Finish Group met five times during February 2018 and April 2018. Members heard extensive evidence from a number of high profile witnesses which included those with expertise in the monitoring and management of air quality across the City Region, a panel of witnesses which comprised of experts from public health and medical and the final panel of experts who explained how policies, plans and funding programmes from Merseytravel, Constituent Local Authorities and the Combined Authority could influence improvements to Air Quality.

The extensive evidence and insight gained enabled the Task and Finish Group to identify six recommendations and sought to complement the air quality feasibility study which was being developed by the Combined Authority.

2 Background to the Review

Action to manage and improve air quality is largely driven by European legislation, which sets legally binding limits for air pollutants that impact on public health, such as particulate matter and nitrogen dioxide. Related UK legislation requires local authorities in the UK to review air quality in their area and designate air quality management areas (AQMAs) where pollution levels exceed these limits. The legislation does not directly apply to the Combined Authority. The briefing paper in Appendix 1 summarises the legislation and legal powers.

Across the UK, road transport has been identified as the most significant source of emissions locally, related to transport. Nitrogen dioxide (NO₂) and particulate matter (PM10s) are the main pollutants breaching legal limits, mainly stemming from the combustion of diesel fuel.

Where AQMAs are designated, local authorities are required to work towards improvement, and an Air Quality Action Plan (AQAP) must be developed. The

City Region currently has 11 Air Quality Management Areas (AQMAs), and all of Liverpool City Council is designated an AQMA on account of its poor air quality. Many of these designations have been in existence for over a decade, and the problems associated with poor air quality are, generally, worsening rather than improving. The briefing paper in Appendix 2 provides additional information on the local air quality problem.

Linked to the City Region's Devolution Deal, and related commitments in the Metro Mayor's 100 Day Plan from the summer of 2017, the Liverpool City Region (LCR) is currently finalising an initial feasibility study to test, model and evaluate a range of measures that could improve air quality across the LCR, and to test their costs, relative benefits. This work commenced before the Task and Finish Group's work began, and it was possible to engage the feasibility study's lead consultant in this review. The Task and Finish Group's brief is considered wholly complementary with the scope of the technical feasibility work.

3 Developing the Scoping Document

An initial scoping meeting of the Task and Finish Group took place on 7 February 2018, where members were briefed on the current position relating to air quality management in the Liverpool City Region.

Members discussed the complexity of the issues at stake, and the large number of factors that affected air quality, such as traffic, freight, shipping, industrial pollution from commercial premises. Equally, it was appreciated that responsibilities fell to many organisations and indeed, to individuals, whose travel choices affect air quality.

Members considered the universities' involvement in the work to be important, specifically referencing air quality studies which had been undertaken across the City Region.

The effect of air pollution on health was highlighted and it was suggested that health professionals should be invited to provide statistics on related illnesses. It was noted that there was a correlation between low income areas and poor air quality and more information on this was requested.

Members were also keen to understand variations in air quality across the boroughs with a view to understanding how requirements stemming from European Regulations could be exceeded.

It was agreed that the aim of the review would be as follows:-

To examine and challenge the Combined Authority's strategic role in addressing poor air quality across the Liverpool City Region, aided by an understanding of the risks to public health that are presented, and the plans, policies and proposals of both Authority and the six constituent local authorities in seeking to address these air quality problems.

The review would go on to examine and make recommendations on:-

- The context to the local air quality management regime, legal requirements and the causes and effects of poor air quality locally;
- Existing approaches locally and across the city region in tackling poor air quality, including initiatives by the Liverpool City Mayor, Merseytravel, and Public Health practitioners;
- The commitment in Liverpool City Region's follow-on Devolution Deal, that has led to the commissioning of an (ongoing) Preliminary Air Quality Feasibility Study, due to complete in March 2018 ;
- Approaches and best practice from others towns and cities across the UK and beyond; and
- Other actions and priorities that the Combined Authority could explore in the context of improving air quality.

4 What we did and who we spoke to

The panel was fortunate to hear evidence from a sizeable, highly proactive group of prominent experts in the field. The evidence gathering sessions ran for over six hours in total, in response to members' questions and ensuing discussions, linked to the interest in the issues at stake.

As noted in the scoping document, the review comprised three evidence sessions:-

- a) The first session heard from witnesses with expertise of the air quality monitoring and management regime across the city region:-
 - Paul Farrell, Public Protection at Liverpool City Council
 - Vicky Jackson, Atmospheric Emissions Officer, Merseytravel/Sefton MBC
 - Duncan Urquhart, AECOM (consultant commissioned by Merseytravel to develop the preliminary air quality feasibility study)
- b) The second session examined the impacts of poor air quality of health and comprised a panel of public health and medical experts on the issues:-
 - Dr Emer Coffey – Liverpool City Council
 - Dr Richard Jarvis - Public Health England
 - Dr Ben Barr – University of Liverpool
 - Linda Turner – Sefton MBC Public Health
 - Dr Rob Barnett – General Practitioner within the LCR
- c) The final evidence session looked at the policies, plans and funding programmes that were being taken forward across the LCR:-
 - Mick Noone – Director of Integrated Transport Merseytravel and Chair of the Transport Advisory Group (TAG)

- Colleen Martin - Liverpool City Council
- Dr Stephen Birch – Sefton MBC
- Matt Goggins – Head of Bus, Merseytravel
- Mark Dickens- LCRCA Planning Lead

A representative from the Society of Motor Manufacturers and Traders Limited (SMMT) was invited to give evidence, and whilst fully willing to participate, was unable to attend the planned evidence session due to prior commitments. However, SMMT have been approached for further written information which is being circulated to members separately, for their consideration.

5 What did we hear and from whom?

a) Evidence session one

This session sought to set the scene from a factual and regulatory context, to understand the location, extent and causes of poor air quality across the Liverpool City Region, together with an understanding of the local air quality management system.

Witnesses set out changes to air quality trends from the 1960s through to the present day and explained the changes seen in the composition of air pollution. For example, there has been a downward trend in pollutants like lead and sulphur dioxide, but Nitrogen Dioxide (NO₂) and PM10 emissions in England remain a cause for concern. This comes as a result of the growth in vehicle use, despite an improvement in engine and emissions standards.

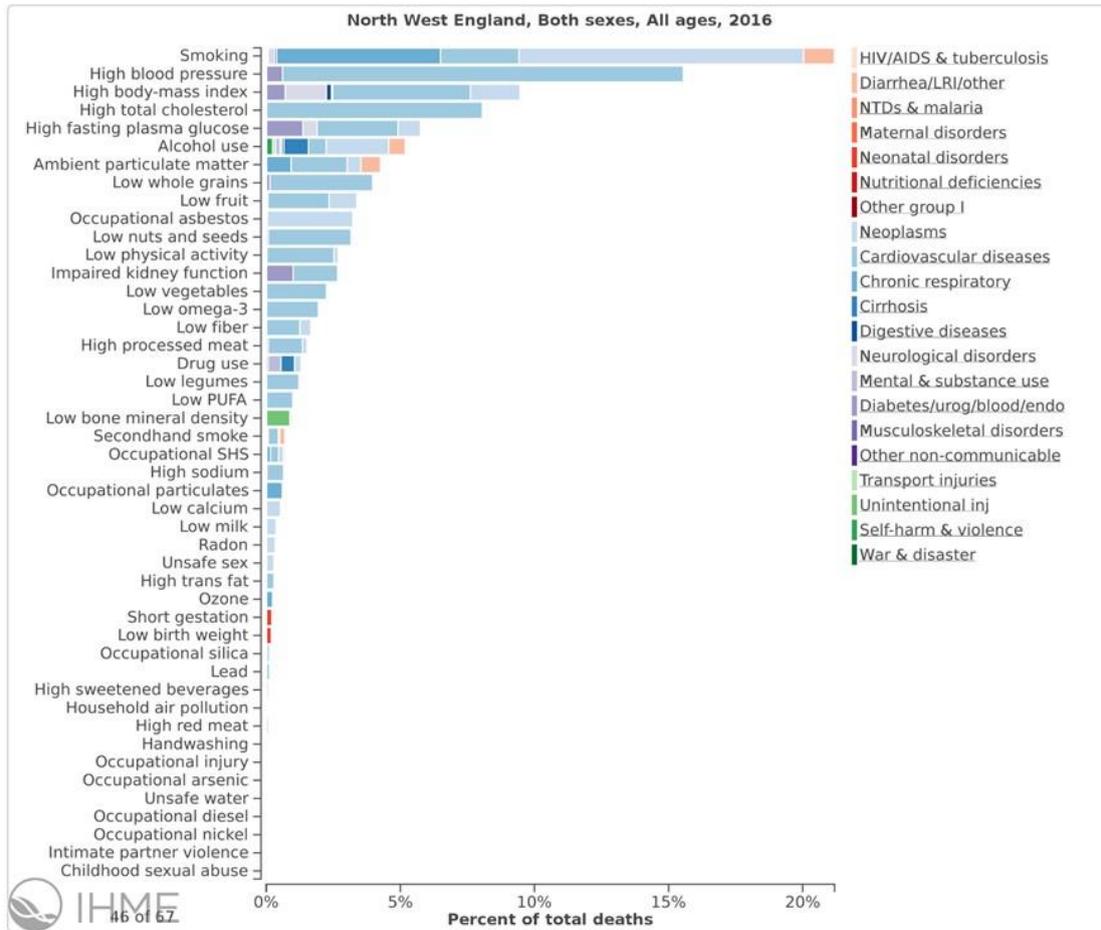
Air Quality is monitored through automatic monitoring stations and diffusion tubes located on street furniture across the City Region to undertake the required air quality management assessments. The Atmospheric Emission Inventory (AEI) that the LCR has invested in also provides a valuable tool for quantifying emissions of pollutants and assessing the impact of activities that release them.

b) Evidence session two

This session sought to understand the public health context arising from poor air quality stemming from transport emissions across the Liverpool City Region.

Poor air quality has a stark impact on public health. Air pollution can cause a range of cardiovascular diseases, lung cancer, respiratory diseases, asthma as well as eye and throat irritations, leading to premature deaths. The graph overleaf was presented by Dr Coffey as context:-

Risk factors for deaths in North West England



Source: GBD 2016

Dr Coffey showed that, across the LCR, 1 in 3 die young (defined as less than 75 years), which translates as some 6,000 deaths each year. This is linked to a range of factors, including high rates of asthma, chronic bronchitis and coronary heart disease. Life expectancy is significantly reduced in more deprived areas. The LCR's health gap compared to the rest of the UK is widening. Improving socio-economic conditions in the LCR is key to improving people's health, building on earlier "health is wealth" studies and evidence.

Dr Barr referenced research by the University of Liverpool, which sought to quantify the savings to the health service if air pollution could be reduced.

Dr Jarvis considered there to be a need to invest in sustainable travel infrastructure and encourage the population to walk, cycle and exercise more as this has a contributing effect on pollution. Levels of pollution breathed in by cyclists are less than for those sitting in a car, for example.

The panel of experts considered there to be an urgent need to inform the public in terms of the impact that air pollution is having on health. In summary, the panel's evidence informed the Task and Finish Group that the

city region should build a coalition of stakeholders and establish an air quality network, to help provide simple consistent messages. Recognising that air pollution needs to be tackled in partnership with a wide range of bodies and not just the local government, underpinned by senior level, long term commitments.

c) Evidence session three

The session sought to understand and assess the plans, policies and activities that are being developed and/or implemented across the city region that have the aim of addressing poor air quality. A large number of transport-related policies exist, with the overriding aim of promoting more sustainable travel choices, such as walking, cycling and public transport. Funds are available that could support the roll-out of such measures, such as the Transforming Cities fund and to promote the uptake of alternative fuels in the bus fleet. More needs to be done to encourage people to change their travel choices in practice, however.

Liverpool City Council had received a ministerial direction to advance improvements on air quality before 2020. The City Council had identified a range of areas to improve emissions e.g., changing LCC fleet to non-diesel alternatives and commitments to a diesel free city centre.

Sefton Council had also received ministerial direction and has identified a series of measures to address the problem through an Action Plan, a communications strategy, an air quality study as examples. Growth and development in the Port of Liverpool is a big issue for air quality as a result of an increase in container ship traffic. Better rail infrastructure and more use of inland and coastal shipping is needed to reduce these traffic levels. The Manchester Ship Canal is considered an important asset, but a balance needs to be struck between promoting greater use of the canal for the carriage of freight, and the impacts caused by the opening of swing bridges in Warrington upstream.

Merseytravel set out how the bus is part of the solution to improving air quality. For example, the LCR has the biggest electric bus fleet outside of London. Increased use of the bus is needed to reduce private car use and cut down on congestion and pollution. Prioritising bus services above general traffic is essential to do this, and measures such as bus lanes, red routes and intelligent traffic signals are considered part of the solution in order to attract people from their cars. Improved bus punctuality and reliability also reduces the number of buses needed to maintain a service, offering cost and environmental benefits.

More detailed summaries of the three evidence sessions are set out in Appendices 4, 5 and 6.

6 What conclusions did we reach?

From the evidence sessions the following conclusions were reached:-

1. Although the Combined Authority is not specifically covered by local air quality management legislation, it *can* and *must* act in response and in order to raise the profile of the issue. The main cause of NO₂ exceedances locally stem from transport emissions and as the Combined Authority has statutory responsibilities for transport policy and funding, the policies and priorities of the Combined Authority have a direct bearing on transport, and thus on transport emissions and local air quality management. Likewise, the role of the Authority's Spatial Development Strategy needs to be maximised in terms of its emerging policies on air quality.
2. The problems and risks associated with poor air quality from NO₂ emissions should be a higher priority, and awareness needs to be raised. The problem is not as visible as it was in the past, when smog and soot from coal burning blackened building across the region. As a result, the health and social implications of the problem are not fully realised or appreciated. Much better communication and education is needed across the city region to raise awareness. The Combined Authority should promote best practice in this respect and seek to encourage a more consistent approach across the LCR to working with schools, communicating with the public and stakeholders and so forth, so as to allow people to take appropriate action.
3. Further work is needed to improve the air quality monitoring and modelling processes across the LCR, to make them "real time" and consistent, given the manual processes associated with collecting data from diffusion tubes on street furniture.
4. There needs to be greater commitment by the Combined Authority and a wide range of bodies alike towards the delivery of measures that support cleaner air and which reduce emissions from vehicles. Promoting more walking, cycling and public transport use is essential and there is an urgent need to actively plan for, and create a Liverpool City Region that fosters more sustainable travel choices. Land use planning guidance is considered vitally important in this respect, in order to future-proof new development and to promote sustainable design and "place-making". Supplementary Planning Documents, produced by the local authorities are considered important to translate these principles into action.
5. The Combined Authority has an important role to play in terms of acting as a champion for the range of potential solutions available. Its emerging air quality preliminary feasibility study will be an important springboard for further action. This action plan should be considered in more depth by the Overview and Scrutiny Committee at a later date.

7 What recommendations are we making?

1. That the Metro Mayor, on behalf of Combined Authority, acts as a political “champion” for a series of long term measures to improve air quality across the Liverpool City Region, involving a wide range of influential bodies and decision-makers. The preliminary air quality feasibility study which is in the process of being finalised, and the action plan that needs to be developed in response, should be formally considered by the Overview and Scrutiny Committee in due course. This will come ahead of consideration by the Combined Authority.
2. Allied to this, the Metro Mayor and the Combined Authority should champion a communications plan to set out a commitment to engage with people across the LCR. This should be targeted as follows:-
 - a) to engage with schools and young people who are particularly vulnerable to the effects of poor air quality, aided by consistent educational materials and best practice across the LCR;
 - b) to engage with the public protection and public health sectors to jointly raise awareness, which could be through roadshows and events, as examples; and
 - c) to promote National Clean Air Day and related campaigns.

The communications plan needs to explain clearly that the LCR has a problem and set out what can be done to both alleviate symptoms, and help address the root of the problem.

3. The Combined Authority needs to fully utilise and align its funding, transport, planning and economic development powers to create an environment where people have reduced reliance on road transport and make greater use of walking, cycling and public transport. For example, this could be linked to the Authority’s emerging digital strategy and the powers that it has over a Key Route Network of local roads. This also needs to be consistently applied through the Authority’s plans and strategies, e.g. through the Freight Strategy and Local Journeys Strategy.
4. The Combined Authority should use its emerging Spatial Development Strategy to address poor air quality and to raise air quality as a policy consideration.
5. The Combined Authority should give prominent and consistent consideration to air quality implications in its decision-making processes and in its investment decisions. This could include much better ‘before and after’ analysis in project and programme evaluations.
6. The Combined Authority should support the six constituent local authorities in their statutory duties to monitor and address air quality, and

seek to foster a more “high tech”, consistent and extensive air quality monitoring regime across the LCR. The Combined Authority also needs to work collectively with the constituent local authorities and with central government to tackle the problems caused by vehicles and engines that create the most pollution. This should take the form of an LCR air quality task force, convened by the Authority, comprising officers from the local authorities, Combined Authority and public health bodies, to progress the actions needed in order to improve air quality.

List of Appendices

Appendix One – Supplementary Note – Air Quality Management Legislative background – considered by the Task and Finish Group at their meeting on 28 February 2018

Appendix Two – Supplementary Note – A brief introduction to air quality issues across the Liverpool City Region – considered by the Task and Finish Group at their meeting on 21 February 2018

Appendix Three – Map showing the location of Air Quality Management Areas (AQMAs) across the Liverpool City Region

Appendix Four – Air Quality Task and Finish Summary Note for the evidence session held on 21 February 2018

Appendix Five – Air Quality Task and Finish Summary Note for the evidence session held on 7 March 2018

Appendix Six – Air Quality Task and Finish Summary Note for the evidence session held on 21 March 2018

Appendix Seven – Links to additional documents outlined by expert witnesses

Appendix One

TOPIC:	Supplementary Note – Air Quality Management Legislative Background
DATE:	28 th February 2018
FAO:	Scrutiny Panel Task and Finish Group on Air Quality
AUTHOR:	Huw Jenkins, LCRCA

1. This note provides a brief summary of the legislative background concerning local air quality management across the UK. It has been written from a policy perspective and should not be taken as a definitive statement of the law.
2. The Environment Act 1995 and the “National UK Air Quality Strategy” from March 1997 sets hourly and annual mean objectives for eight pollutants :
 - Nitrogen Dioxide (NO₂)
 - Sulphur Dioxide (SO₂)
 - Carbon Monoxide (CO)
 - Lead (Pb)
 - Fine Particulate Matter (PM₁₀)
 - Benzene (C₆H₆)
 - 1,3–Butadiene
 - Ozone (O₃)
3. The Environment Act 1995 requires local authorities to conduct periodic reviews and assessments of air quality. The first stage of review and assessment was undertaken in 2001 By 2005 LAs were required to designate an Air Quality Management Area (AQMA) where objectives were not being achieved, and thereafter produce an Action Plan to reduce emissions. Local Authorities must also submit regular progress reports to Government. Just as AQMAs can be declared when emissions exceed prescribed standards, they can also be revoked when standards are met.
4. Under EU law, which in turn has informed the UK’s legislative framework, the UK Government is required to comply with emissions standards by 2020. Court proceedings have been brought against the UK Government by [Client Earth](#) on three occasions for non-compliance. Any action and fines from the EU would be levied against the UK Government (and the devolved administrations), though these fines could be levied against offending local authorities under the Localism Act 2011.
5. The Combined Authority is not specifically covered by local air quality management legislation, being a duty that falls to the constituent local authorities. However, as the main cause of NO₂ exceedances in the LCR stem from

transport emissions, and as the Combined Authority has statutory responsibilities for transport policy and funding, it will be appreciated that there is a link between the CA's responsibilities and those of the constituent local authorities. In other words, the policies and priorities of the Combined Authority have a bearing on transport, which in turn has a bearing on transport emissions and local air quality management.

6. Turning to issues of shipping and impacts on air quality, then the Mersey Port Health Authority has influence over the Mersey waterfront within Liverpool, Sefton and Wirral. Of particular concern to the Authority is dark smoke emitted from shipping, and which is an offence under the Clean Air Act 1993. Regulations permit dark smoke to be emitted for limited periods and in particular circumstances. Complaints related to ship operations or port areas will normally be the subject of a joint approach by the local authority and the Port Health Authority, with legal enforcement being undertaken by the local authority.
7. The Maritime and Coastguard Agency exercises further powers over coastal waters, extending to within 12 miles of the shore. Emissions from ships are covered by 1997 Protocol to the International Convention on the Prevention of Pollution from Ships (known as the [MARPOL Convention](#)).
8. MARPOL Annex VI, adopted in 1997, limits the main air pollutants in exhaust gases, including sulphur oxides (SO_x) and nitrous oxides (NO_x), and prohibits deliberate emissions of ozone depleting substances.

TOPIC:	A brief introduction to air quality issues across the Liverpool City Region
DATE:	February 2018
FAO:	LCRCA Scrutiny Panel Task & Finish Group on Air Quality
AUTHOR:	Huw Jenkins, Liverpool City Region Combined Authority Tel: 0151 330 1393

1. Introduction

- 1.1 Action to manage and improve air quality is largely driven by European legislation, which sets legally binding limits for air pollutants that impact on public health, such as particulate matter and nitrogen dioxide.
- 1.2 In England, the Department for Environment, Food and Rural Affairs (Defra) has responsibility for meeting the values in England and co-ordinates assessment and air quality plans for the UK as a whole. The legislation requires local authorities in the UK to review air quality in their area and designate air quality management areas (AQMAS) where pollution levels exceed these limits.
- 1.3 Across the UK, road transport has been identified as the most significant source of emissions locally. Defra figures state that that 70% of air quality emissions are related to transport and nitrogen oxides (NOx) and particular matter (PM10s) are the main pollutants breaching legal limits, mainly stemming from the combustion of diesel fuel.
- 1.4 Where AQMAS are designated, local authorities are required to work towards improvement, and an Air Quality Action Plan (AQAP) describing the pollution reduction measures must be developed. These plans should contribute to the achievement of air quality limits at a local level.
- 1.5 Notwithstanding uncertainties surrounding 'Brexit', the EU has the power to take action against non-compliant member states in the form of fines. There remains a real risk that fines could be levied on the UK for not having a 'credible plan' to meet air quality standards, and these could be passed down to local authorities to pay. This is now recognised as a potential risk to local authorities, in addition to the serious health risks caused by poor air quality.
- 1.6 These health risks are wide ranging and well documented, including heart and lung disease, autism, brain development, cancer and overall reduced life expectancy. The premature death toll caused by road traffic pollution is suggested to be around 29,000 people or 5% of all annual UK deaths and the

UK has the second-highest number of deaths from nitrogen dioxide pollution in Europe.

2. The UK plan for tackling roadside nitrogen dioxide

- 21 Following earlier court cases against the UK Government for non-compliance against EU air quality targets, the Government published a draft Air Quality Plan for Nitrogen Dioxide in May 2017. The LCR Combined Authority considered and approved its response to this consultation in June 2017. The covering report and draft response is available [here](#). The Government issued its final plan ahead of the legal deadline of end July 2017, and the document is available [here](#).
- 22 The plan lists Knowsley, Liverpool and Sefton Councils as having roads with concentrations of NO₂ forecast above legal limits. Despite being listed in the plan, it states that these areas are *not* required to conduct a Clean Air Zone (CAZ) feasibility study, as has been the case in other cities and city regions. As per the approach with London's [T charge](#), a CAZ could seek to ban or levy charges against the most polluting vehicles, or else provide incentives to use less polluting forms of travel. Halton Borough Council is also cited in the plan as having roads with exceedances of nitrogen dioxide, which it states will be resolved by the opening of the Mersey Gateway Bridge. Again, a feasibility study is not mandated.
- 23 Despite not being mandated to look at Clean Air Zones specifically in the Government's national plan, Government still requires local action to achieve improvements in air quality ahead of the 2020 deadline imposed by Europe. The plan also signals the availability of further funding to assist local areas in tackling poor air quality, which could include a Clean Air Fund.

3. The air quality position across the LCR

- 3.1 The Liverpool City Region currently has 11 Air Quality Management Areas (AQMAs), and all of Liverpool City Council is an AQMA on account of its poor air quality. The map at the back of this briefing note shows the declared AQMAs across the city region.
- 3.2 In view of the clear links between transport and poor air quality, improving air quality is a core aim of the Liverpool City Region's [statutory Local Transport Plans](#), to reduce emissions from transport sources, and promote a clean, low emission transport system. These plans also draw upon best practice from other European cities, where sustainable mobility, clear air and a healthy population are all recognised as core components of the creation of a strong and prosperous economy – “clean growth”.
- 3.3 Many of the city region's AQMAs have been in existence for over a decade, and it is fair to assert that poor air quality has been seen as a low priority, or else an inevitable consequence of growth. This in part stems from the complexity of the problems and solutions at stake, and the need for action by a very wide range of local authority departments, public health departments,

the NHS, Public Health Departments, property developers, the private sector, motor manufacturers, local residents and so forth. In other words, it is a problem that does not sit neatly with any individual local authority department or public or private body.

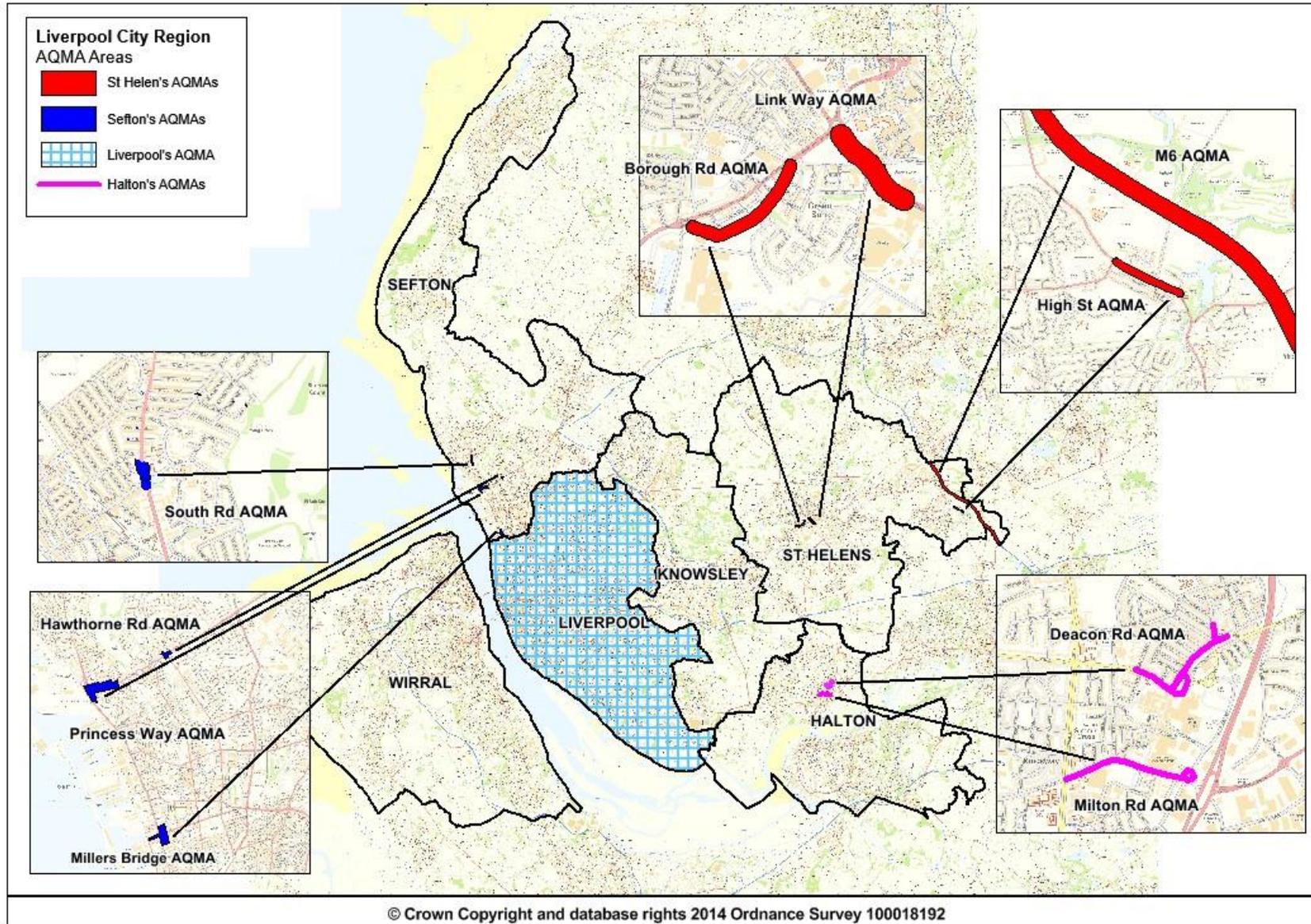
- 34 The Liverpool City Region's 2016 [Devolution Deal](#) agreed between government and the Combined Authority commits to further devolution to the Authority, linked to the election of a directly elected Metro Mayor. In respect of air quality, it states that:

“The government will work with the Liverpool City Region Combined Authority to explore ways in which the Liverpool City Region Combined Authority Mayor can be enabled to implement Clean Air Zones in the Combined Authority area. This will help achieve Air Quality Plan objectives at both the national and local level.”

- 35 Building on the above, and as per the related commitment in the Metro Mayor's [100 Day Plan](#), the LCR is currently embarking on an initial study to test, model and evaluate a range of measures that could improve air quality across the LCR, and to test their costs, relative benefits. The work being commissioned will greatly enhance the LCR's understanding of the effectiveness of likely solutions. These options will also include an examination of Clean Air Zones (CAZs).

- 36 The commission for the study was awarded, following a competitive tendering process, to AECOM (led by Duncan Urquart). It is being steered on behalf of the Combined Authority by Merseytravel and the constituent local authorities. The work will be complete by the end of March 2018, and key issues will be reported to the local authorities and to the Combined Authority.

Appendix Three - Map showing location of Air Quality Management Areas (AQMAs) across the Liverpool City Region



LIVERPOOL CITY REGION COMBINED AUTHORITY OVERVIEW & SCRUTINY COMMITTEE

SUMMARY NOTE

AIR QUALITY TASK & FINISH GROUP

Evidence Session 1

21 February 2018

Attendees	
<u>Councillors</u>	<u>Witnesses</u>
<p>Sue McGuire Denise Dutton Pauline Sinnot Carla Thomas Bill Woolfall Gillian Wood Paula Murphy Tricia O'Brien</p>	<p>Paul Farrell, Liverpool City Council Vicky Jackson, Merseytravel Duncan Urquhart, AECOM</p> <p style="text-align: center;"><u>Supporting Officers</u></p> <p>Huw Jenkins, Liverpool City Region Combined Authority</p>
1. Presentation from Paul Farrell, Vicky Jackson and Duncan Urquhart	
<p>Officers provided a presentation which highlighted the following:-</p> <ul style="list-style-type: none"> • Set out the air quality trends from the 1960's through to the present day and explained the sources of air pollution which people were currently exposed too; • Outlined the trend of the various pollutants across England which demonstrated that until recently they had been on a downward trend (e.g. lead and sulphur dioxide). • Highlighted that Nitrogen Oxide and PM10 emissions in England have plateaued and remain a cause for concern as a result of the growth in vehicle use, despite an improvement in engine and emissions standards; • Explained the Air Quality legislation and the legislative framework which Local Authorities worked within; • Explained how Air Quality was monitored through automatic monitoring stations and Diffusion Tubes; • Outlined where automatic monitoring stations and diffusion tubes were situated across the City Region; • Explained the purpose of an Air Quality Management Assessment (AQMA) and highlighted the number of them in operation across the UK, with 11 situated across the City Region; • Summarised the purpose of an Atmospheric Emission Inventory (AEI) which provided a 	

valuable tool for quantifying emissions of pollutants and assessing the impact of activities that release them;

- Provided examples of how the AEI identified the pollutant emissions for each source and how this information was able to support interventions to reduce air quality;
- Considered a map of the City Region which highlighted the areas according to the indices of multiple deprivation; and
- Compared the annual emissions for NO₂ and PM₁₀ for 2016 and through to 2020.

Summary of issues raised

- Clarity was sought on whether this Task and Finish Group would have an opportunity to influence the Air Quality feasibility study which was currently being undertaken?

The Group was informed that the work of this Group would complement the feasibility study and that some issues being examined by the group went beyond the scope of the feasibility study.

- A number of concerns were expressed regarding the vessels coming into the Port of Liverpool and the impact this had on air quality. In particular, Members sought clarity on the process of monitoring Cruise Liners to ensure they switched from dirty to clean fuel as they were coming into Port and what enforcement action was available if a Cruise Liner was found not to be switching from dirty to clean fuel.

It was suggested that Cruise Liners would be monitored by Marine regulations. However, further information would be sought to confirm if this was the case and that a supplementary note summarising the legislative framework would be produced.

- It was noted that the presentation highlighted that the pollutants from rail were a concern and wasn't the preferred method of moving freight to rail causing greater problems to emissions.

Members were informed that the operation of rail diesel was a contributing factor towards increased emissions. However, with the continued electrification of rail lines and move to alternative fuel sources, this would seek to reduce the emissions from rail diesel.

- A summary of how the Automatic Monitoring Station operated and the varying emissions it could measure was provided to Members.
- A Member referenced Section 87 of the Planning and Environment Act and sought clarity on whether there had been any cases which had been prosecuted using this legislation in the City Region?

It was noted that no local authorities had been prosecuted under this legislation, but that the UK Government as a whole was in breach of the EU's air quality compliance targets. This had resulted in court cases against the Government by Client Earth, and the requirement for Government to produce an updated air quality plan. There remains a risk that any EU fines could be passed down to offending local authorities by the UK Government.

- An explanation of how DEFRA sourced the data from the Automatic Monitoring Station was provided to the Group. This highlighted the frequency with which the data was

collected and how this was then verified through a manual process. The Group was also informed that the data contained in the Diffusion Tubes was collected on a fortnightly basis. It was noted that there are differences between local air quality data and DEFRA's data.

- It was recognised that particulates had impacted upon air quality since the 1940's, however due to the developments in science and the reduction in sulphur dioxide and carbon monoxide they had come to prominence more recently been identified.
- How was the location of air quality monitoring stations determined?

Members were informed that each Local Authority would determine the location of their stations. The decision was often influenced by the volume of traffic and other information.

- With regards to emissions produced by shipping it was noted that the statistics highlighted that this could be on a par with road traffic.
- In considering the presentation from Duncan Urquhart, AECOM, who was undertaking the air quality feasibility study on behalf of the LCR Combined Authority, Members noted that to understand the age of the vehicle fleet and the types of engines in use, automatic number plate recognition devices would support this and be able to inform the actions to address this. The importance of addressing exposure by individuals, rather than overall emission levels was also noted.
- Members were advised that AECOM considered the monitoring of air quality across the City Region to be of a good standard.
- Concern was noted over the national data used by Central Government which indicated that in 2020 the issue of poor air quality would have been significantly reduced. However, local data contradicted and it was envisaged that the feasibility study would confirm the local data and present a range of actions that could be introduced to best tackle the problem.

LIVERPOOL CITY REGION COMBINED AUTHORITY OVERVIEW & SCRUTINY COMMITTEE

SUMMARY NOTE

AIR QUALITY TASK & FINISH GROUP

Evidence Session 2

7 March 2018

Attendees	
<u>Councillors</u>	<u>Witnesses</u>
<p>Sue McGuire Denise Dutton Pauline Sinnott Carla Thomas Bill Woolfall Gillian Wood Paula Murphy Kevan Wainwright</p>	<p>Emer Coffey – Liverpool City Council Richard Jarvis - Public Health Ben Barr – University of Liverpool Linda Turner – Sefton MBC Dr Rob Barnett – GP, British Medical Association</p> <p style="text-align: center;"><u>Supporting Officers</u></p> <p>Huw Jenkins - Liverpool City Region Combined Authority Rachel Farnan - Merseytravel</p>
1. Presentation from Dr Emer Coffey, Dr Richard Jarvis, Dr Ben Barr, Linda Turner, with contributions from Dr Rob Barnett	
<p>Officers provided a presentation which highlighted the following:-</p> <ul style="list-style-type: none"> • 6,000 people in LCR die every year due to Air Pollution. • 64 Years is the life expectancy of the average person in Knowsley and wider spread areas that are deprived in the LCR. • The admission rate in Knowsley is more than double the rate in Wirral • The premature respiratory mortality rate in LCR has increased by 13% since 2009/10. • The gap with England has widened from 44% in 2007/09 to 65% in 2014/16. • Global Burden Disease of risk factors of deaths in the North West. Air Pollution can cause Cardiovascular disease, Lung Cancer, Respiratory disease, Asthma as well as Eye and Throat Irritations. • Improving socio-economic conditions in the LCR is key to improving people’s health – “health is wealth” • Richard Jarvis explained the different types of pollution. • Need to look at investing in infrastructure and encourage the population of the North West to cycle and exercise more as this had a contributing risk to pollution. • Amount of pollution taken in by cycling is a lot less than being sat in a car. • Need to inform the public what impact Air Pollution is having on health and state that deprivation is also a contributing factor. • Need to be mindful of how individuals with disabilities can tackle air pollution • Potential to take a more consistent approach to use of supplementary planning guidance across LCR and to encourage active community engagement on planning applications. 	

- Need to build a coalition of stakeholders and establish an air quality network across region and simple consistent messages to the public.
- There would be a £1.5million in prescription and medication costs saving if air pollution was reduced by 20% over 5 years within the LCR.
- Air Pollution needed to be tackled in partnership with NHS etc; not just the local government.
- The question was raised as to what the contribution of nitrogen dioxide had to deaths. It was reported that it reduced a person's lifespan of 6 months and a study was currently being carried out regarding this. When the report is published it would be able to be broken down to show the effects.
- A question was also raised as to what affect shipping had on air pollution and the distance it would spread. Richard Jarvis explained that due to shipping using high sulphur fuels; it would contribute to air pollution. A recommendation was put in place to contact the Port Authority to seek any data they have in relation to air pollution.
- A question was raised by Cllr Thomas as to whether there were any statistics showing what factor Carbon Monoxide had on air pollution. Richard Jarvis would seek the answer in relation to this and report back to Cllr Thomas.
- Richard Jarvis provided a list of what the LCR could do to tackle air pollution:
 - Leadership and Commitment from Members and Local Districts
 - Think about what needs to be done long term – and keep at it
 - Work out what suited the LCR best recognising that there are lots of potential solutions available
 - Need to achieve creating an environment where people could have reduced reliance on road transport and greater use of walking, cycling and public transport and tackle vehicles that cause the most pollution
 - Engage more with schools, public and bring in the Public Sector.
- In Sefton a local communications plan is due to begin in schools, taxis and eco-centres.
- Liverpool are developing a behavioural change campaign and planning education work with schools. Work is also being carried out in schools in Wirral and perceptions of local air quality is being carried out in Halton.

Summary of issues raised

- It was raised as to whether cycling was healthy due to congestion and being exposed to car emissions. However it was clarified that it was a risk benefit and we needed to do what we could to reduce an individual's exposure to pollution.
- The LCR needed to be promoting the effects of what air pollution has on an individual's health, invest in walking and cycling infrastructure, NHS need to be acting as champions and to engage with the public to make them aware that air pollution is a serious issue and contributes to deaths.
- In regards to children, it was suggested that it may be beneficial speaking with pram manufacturers in order to protect children from car emissions.
- A recommendation was put in place to contact I Port Authority to seek any data they had in relation to air pollution from shipping.
- It was recommended that Huw Jenkins ask representatives that attend the previous Air Quality Meeting what their opinion was on re-opening bus lanes and extending this to cycle lanes as this may benefit reducing air pollution and get the public cycling and using public transport.
- Planning needs be taken into account i.e. housing estates and being able to have easy accessibility to see a doctor or nurse, pharmacy and public transport.
- Huw Jenkins suggested bringing a planning representative to the next Air Quality task and finish group meeting.

LIVERPOOL CITY REGION COMBINED AUTHORITY OVERVIEW & SCRUTINY COMMITTEE

SUMMARY NOTE

AIR QUALITY TASK & FINISH GROUP

Evidence Session 3

21 March 2018

Attendees	
<u>Councillors</u>	<u>Witnesses</u>
<p>Sue McGuire (Chair) Pauline Sinnott Carla Thomas Bill Woolfall Gillian Wood Paula Murphy Kevan Wainwright</p>	<p>Mick Noone – Director of Integrated Transport Merseytravel and Chair of the Transport Advisory Group (TAG) Coleen Martin- Liverpool City Council Stephen Birch – Sefton MBC Matt Goggins –Head of Bus At Merseytravel Mark Dickens- LCRCA Land Use Planning</p> <p style="text-align: center;"><u>Supporting Officers</u></p> <p>Sue Jarvis- Liverpool City Region Combined Authority Shauna Phillips- Merseytravel Democratic Services</p>
1. Verbal Presentations from Mick Noone, Coleen Martin, Stephen Birch, Matt Goggins and Mark Dickens	
<p><u>Mick Noone – Director of Integrated Transport and Chair of TAG :</u></p> <ul style="list-style-type: none"> • The STEP programme was in its second phase and delivered cycling and walking schemes to lessen private care use. • Transforming Cities funding ideas were being developed with Steve Rotheram taking the lead. • There was discussion on the state of the KRN with acknowledgement that it affected public transport, cyclists and pedestrians alike with 25% of the KRN being ‘structurally unsound’. • The City Region ‘Freight Logistics Strategy’ took into consideration Air Quality looking to encourage low emission vehicle use, multi-distribution points and last mile low emission. • The ‘Local Journeys Strategy’ also focused on walking and cycling as did the ‘Right of Way Improvement Plan’ and the TfN ‘Strategy Transport Plan’. • The capabilities of the Rail network to transport freight were also discussed with focus on the significant rail capacity constraints. • The potential for a Clean Air Zone under the Devolution Agreement was queried by Councillor Sinnott. • Issues around funding within the NHS and Education Sector were highlighted through questions raised by Councillors Wood and Murphy. 	

Coleen Martin – Liverpool City Council Air Quality Expert:

- Coleen explained there had been ministerial direction to Tier 3 Councils to advance improvements on Air Quality before 2020 – Liverpool City Council had identified 6 areas to improve.
- Short term and Long Term measures included: salary sacrifice for car leasing/bikes, bus pass schemes, changing LCC fleet to non-diesel alternatives, commitment to a diesel free city centre, no – idling policies, hackney cab schemes to address diesel retrofitting.
- 21st June had been identified as ‘Clean Air Day’ and it was hoped all the districts would be involved in sharing messages about cleaner air.
- Work had also been undertaken with Scottish Power to look at how uptake in electric vehicle usage could affect infrastructure. LCC were also inserting development requirements regarding electric vehicle charging points into contracts for new builds e.g. office buildings and housing estates.
- Further work was needed to improve the monitoring and review process in place to ensure they are more effective especially in regards to ‘before and after’ analyses on projects like City Centre Connectivity.
- It was noted that theoretical modelling had been done to identify ways in which people could charge Electric Vehicles but there would be behavioural variances that would not be apparent yet. The price to charge would also vary dependent on the speed, location etc.
- Mick Noone suggested inviting Colleen to a TAG meeting to push Air Quality further up the agenda.
- Councillor McGuire queried if there was any training undertaken with drivers to address negative attitudes towards cyclists. Coleen stated there was work done with the Waste Collection Drivers and sensors had been fitted on their wagons to detect cyclists. Coleen offered to update with further information post meeting.

Stephen Birch- Sefton Council:

- Sefton Council had also received ministerial direction to improve its Air Quality and had identified 4 areas in which to do so: 2 on the A5036 and 2 on the A565.
- Measures included: the formation of an Air quality Strategy Group, an Action Plan, a Communications Strategy, an Air Quality study looking at the feasibility of a Clean Air Zone, Local Plan amendments specifying requirements to create charging infrastructure in new builds, Air Quality Initiatives in primary Schools utilising characters such as the ‘pollutants’ and the Ecostars Fleet Recognition Scheme which awarded star ratings to companies dependent on improvements to their fleet in accordance with Air Quality measures.
- Growth and development in the Port was highlighted as a big issue for Air Quality in the region as there were significant expansion plans for a Deep Water Berth which would create an increase in container ship traffic. A City Region Port Assessment Steering Group looked at options for Rail, inland shipping on the MSC and Coastal Shipping.
- It was noted that potentially 75% of traffic from new containers could be transported onto the roads.

Matt Goggins- Head of Bus. Merseytravel:

- Bus as part of the solution to Air Quality issues was emphasized throughout Matt’s presentation with 8/10 journeys being made by bus and the Region bucking the National trend of passenger decline with 16.2% growth.
- Increased use of Bus was highlighted as a measure to reduce private car use and cut down on congestion and pollution given the Euro6 standards of the fleet.
- Prioritising bus services as cost effective for the Public Sector was also noted given the decline in retail spend when the bus services are suspended. KPMG had done a study which showed for every £1 of public money invested in bus there would be a £3 return. However, this varied if punctuality and reliability dropped with extra buses being put in to

maintain the schedule at extra cost.

- There was further discussion on Bus Lanes with a recent Intelligent Traffic Signals Trial being highlighted as potential solution.
- Matt noted locally Arriva had 72 hybrid electric and bio methane buses and the Region had the biggest electric bus fleet outside of London with the 27 route 100% electric.
- Actions taken by Bus were as follows: £40million invested in the bus fleet to ensure Euro 6 standard, £5million OLEV bid, stop/start technology on Stagecoach to combat idling, 7 year average age of fleet, smarter ticketing advances to speed up journey times and a £3million spend from Defra funding to retrofit 150 buses to better standard.

Mark Dickens – LCRCALand Planning:

- Mark referenced the Air Quality Strategic Policy and Air Quality Planning consideration in recommendations on spatial planning.
- Setting out charging points in planning regulations was also discussed.
- The group discussed creating an Air Quality Policy in SDS.

Summary of issues raised

- The cost of bus fares was noted as potentially hindering people from using the service and there was discussion on how this could be addressed.
- Potential for a Clean Air Zone.
- Driver training around cyclist in the districts and potentially lobbying for alterations to the Highway Code were discussed.
- Growth in the Port and how this can be managed with Air Quality in mind.
- Issues around the KRN and how these can be addressed to the betterment of all were raised.
- Concerns on the capacity of the rail network to carry freight were raised with emphasis on how these can be addressed.
- Working in partnership with the Hackney cabs was important to improving Air Quality and was being explored by LCC.

Appendix Seven
Links to additional documents outlined by expert witnesses

- “Air Quality - A Briefing for Directors of Public Health”
<https://www.local.gov.uk/air-quality-briefing-directors-public-health>
- LCR Road Safety Strategy
<https://www.merseytravel.gov.uk/about-us/local-transport-delivery/Documents/LCR%20Road%20Safety%20Strategy%20FINAL%20v10%20-%20July%202017.pdf>
- LCR Long Term Rail Strategy
https://www.merseytravel.gov.uk/Site%20Documents/LCR%20LTRS_Strategy%20Summary_01_08_14_Final%20Issue%20%286%29_MTravel.pdf
- LCR Rights of Way Improvement Plan
<https://www.merseytravel.gov.uk/about-us/local-transport-delivery/Documents/ROWIP%202%202018-2028%20final-March%202018.pdf>
- LCR Bus Strategy
<https://www.merseytravel.gov.uk/Site%20Documents/9560%20Bus%20Strategy%20FINAL%20WEB.pdf>
- LCR Local Journeys Strategy
<http://councillors.knowsley.gov.uk/documents/s49767/Item%206%20-%20Appendix.pdf?StyleType=standard&StyleSize=none>

