

NORTHAMPTON BOROUGH COUNCIL

Overview and Scrutiny

Report of Scrutiny Panel 4 – Emissions Strategy (Action Plan)

DRAFT VERSION 2

1 Purpose

- 1.1 The objective of the Scrutiny Review was to provide Scrutiny input into the Action Plan for the Council's Emissions Strategy

Key lines of Inquiry:

- To increase Councillor and public understanding of air quality issues in Northampton
- To understand the causes and impact of air pollution
- To understand the actions being taken to reduce air pollution in Northampton
- To understand the actions being taken by partners to reduce air pollution in Northampton
- To provide recommendations for the production of the Action Plan for the Council's Emissions Strategy, which will identify ways of improving air quality in Northampton
- Examine all current air quality management areas to ensure they are performing.
- To see if they can be improved and consider all other factors and future factors in moving forward

- 1.2 A copy of the scope of the review is attached at Appendix A.

2 Context and Background

- 2.1 The Overview and Scrutiny Committee considered a briefing note regarding the Emissions Strategy, including hotspots, at its meeting held on 15 August 2016. Following consideration of this information it was agreed that a Scrutiny Review would commence to investigate the Air Quality Action Plan and how Scrutiny could provide input into this. An in-depth review commenced in October 2016 and concluded in April 2017.
- 2.2 This review links to the Council's corporate priorities, particularly corporate priority Protecting Our Environment - A clean and attractive town for residents and visitors.

2.3 The Scrutiny Panel established that the following needed to be investigated and linked to the realisation of the Council's corporate priorities:

Background data, including:

- Presentation to set the scene: "Overview of air quality in Northampton"
- Relevant national, other background research papers and relevant Legislation
- Relevant data:
 - Hotspots and trends
 - Draft Low Emissions Strategy 2016/17
 - Statistical data, including national comparison
- Best practice and successful initiatives in both Northampton and elsewhere
- Case studies
- Witness evidence:

Internal

- Cabinet Member for Environment, Northampton Borough Council (NBC)
- Head of Planning (Planning Policy), NBC
- Senior Environmental Health Officer, NBC

External

- Consultant, Low Emissions Strategies Ltd
- Director of Public Health, Northamptonshire County Council (NCC)
- Residents' Groups
- Northamptonshire Green Party
- Highways/Transport choices, NCC
- Carbon Management Team, NCC
- Electric Corby
- Stage Coach/Uno
- Freight Transport Association

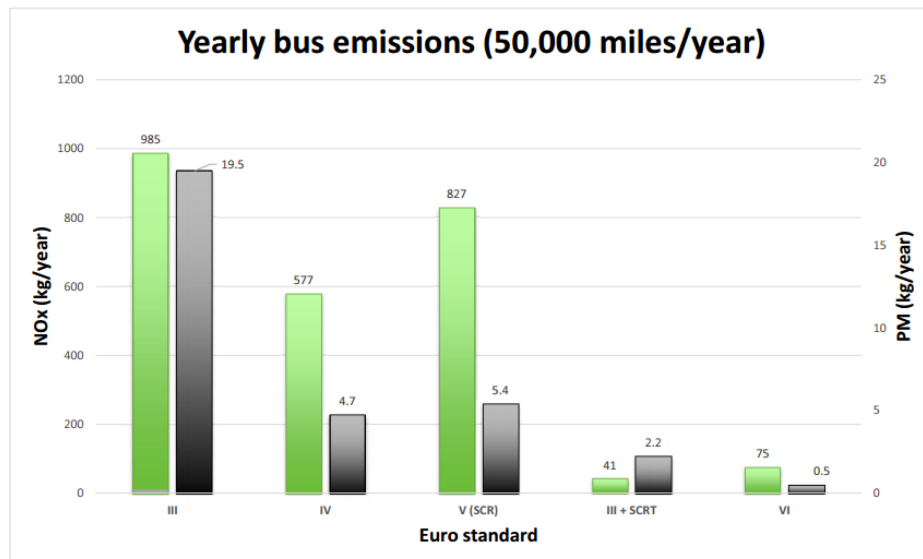
3 Evidence Collection and Desktop Research

3.1 Evidence was collected from a variety of sources:

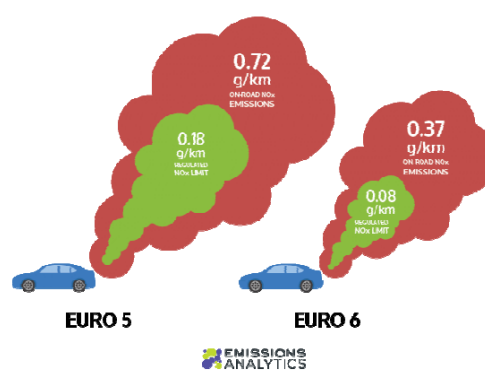
3.2.1 Background reports

[Presentation to set the scene](#)

3.2.2 Statistics



Real world emissions from diesel cars



- 1:20 deaths in Northampton attributed to particle matter. A Lancet report detailed that should someone reside 100 metres near to a major road they have a 10 per cent increased chance of a stroke.

- 65-70% of new vehicles are diesel; they have the same emissions as a 12 year old petrol car
- A Euro 5 bus has the emissions of 177 cars; there are a lot of complexities.
- Bus companies usually turn over a bus every 15 years; however some are kept for 20-25 years.
- The kit to convert a bus to Euro 6 costs £11,000, A new 9 metre bus would cost £90,000; a double decker £250,000 plus £120,000 for a hybrid. Hydrogen powered buses cost around £500,000 to £1 million.
- It relatively easy to take Euro 3 and Euro 4 buses up to standard.
- When you retrofit a vehicle it causes there to be an increase in fuel consumption of 1-2%.

UK Air Quality Objectives and Pollutants

Table 1.1 – UK Air Quality Objectives and Pollutants - LAQM

Pollutant	Objective	Averaging Period	Obligation
Nitrogen dioxide (NO ₂)	200µg/m ³ not to be exceeded more than 18 times a year	1-hour mean	All local authorities
	40µg/m ³	Annual mean	All local authorities
Particulate Matter (PM ₁₀)	50µg/m ³ not to be exceeded more than 35 times a year	24-hour mean	All local authorities
	50µg/m ³ not to be exceeded more than 7 times a year	24-hour mean	Scotland only
	40µg/m ³	Annual mean	All local authorities
	18µg/m ³	Annual mean	Scotland only
Particulate Matter (PM _{2.5})	Work towards reducing emissions/concentrations of fine particulate matter (PM _{2.5})	Annual mean	England only
	10µg/m ³	Annual mean	Scotland only
Sulphur dioxide (SO ₂)	266µg/m ³ not to be exceeded more than 35 times a year	15-minute mean	All local authorities
	350µg/m ³ not to be exceeded more than 24 times a year	1-hour mean	All local authorities
	125µg/m ³ not to be exceeded more than 3 times a year	24-hour mean	All local authorities
Benzene (C ₆ H ₆)	16.25µg/m ³	Running annual mean	All local authorities
	5µg/m ³	Annual mean	England and Wales only
	3.25µg/m ³	Running annual mean	Scotland and Northern Ireland only
1,3-Butadiene (C ₄ H ₆)	2.25µg/m ³	Running annual mean	All local authorities
Carbon Monoxide (CO)	10mg/m ³	Maximum daily running 8-hour mean	England, Wales and Northern Ireland only
	10mg/m ³	Running 8-hour mean	Scotland only
Lead (Pb)	0.5µg/m ³	Annual mean	All local authorities
	0.25µg/m ³	Annual mean	All local authorities

3.2.3 Local Air Quality Management – The Legal

This is a statutory process by which local authorities are required to monitor, assess and take action to improve local air quality.

The need to take action is a statutory duty and is outlined when -

- A local authority identifies an area of non-compliance against the air quality objectives, and
- There is relevant exposure (e.g. housing, school, hospital)

As a minimum the geographic area of non-compliance should be declared an Air Quality Management Area (AQMA) and the local authority must draw up an action plan detailing remedial measures to address this problem

3.2.4 Local Air Quality Management – The Financial

The annual mortality burden in the UK from exposure to outdoor air pollution is equivalent to around 40,000 deaths

The health problems resulting from exposure to air pollution also have a high cost to society and business, health services, and people who suffer from illness and premature death. In the UK these costs are estimated to be more than £20 billion every year.

Potential of EU mandated fines for non-compliance 'Client Earth – High Court Case'

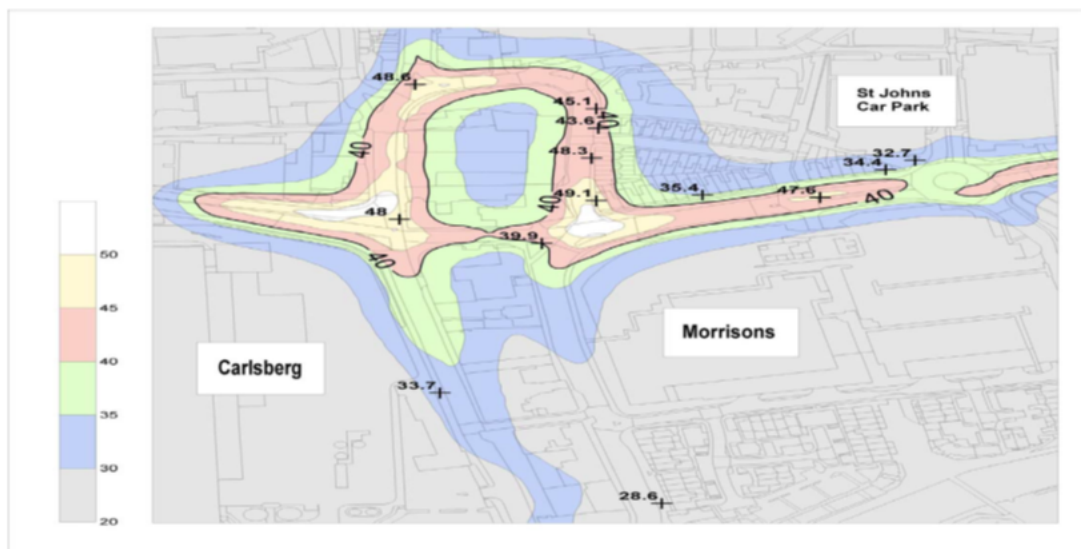
3.2.5 The Local Health Perspective

	% Population with Asthma	Number of People with Asthma
Northampton	6.12%	13,800
England	5.9%	3,127,590

3.2.6 Current AQMAs for Northampton



3.2.7 Air Quality Modelling – Outputs



3.2.8 Monitoring Trends

Victoria Promenade – limited changes in local concentrations

Harborough Road – Decreases and increases in local concentrations

St James – Decreases and increases in local concentrations

In all areas, local concentrations remain above the objective limit at some locations for NO₂

Variations in concentrations may arise as a result of new development, presence of roadworks, weather, displacement of bus fleets (1st Group)

Monitoring Trends – NO₂

Victoria Promenade			
	2013	2014	2015
Bridge Street 1	36	No Data	No Data
Bridge Street 2	38	37	37
Bridge Street 3	40	42	43
Plough 1	No Data	38	39
Plough 2	No Data	40	39
Victoria Promenade 1	31	30	32
Victoria Promenade 2	35	33	34
Cattlemarket Rd 1	33	36	No Data
Cattlemarket 2	35	36	36
Riverside	22	21	19

Harborough Road			
	2013	2014	2015
Harborough Rd 1	40	45	40
Harborough Rd 2	39	40	36
Harborough Rd 3	34	36	37
Harborough Rd 4	41	46	44
Harborough Rd 5	43	49	45
Harborough Rd 6	46	47	45
Harborough Rd 7	39	42	41
Harborough Rd 8	54	38	37
Harborough Rd 9	53	53	55
Harborough Rd 10	41	41	42
Harborough Rd 11	38	39	35
Harborough Rd 12	40	42	46
Kingsthorpe Grove 1	35	36	38
Kingsthorpe Grove 2	32	33	33

St James			
	2013	2014	2015
Weedon Rd 1	29	31	33
Weedon Rd 2	33	33	36
Weedon Rd 3	29	33	34
Weedon Rd 4	31	30	29
Weedon Rd 5	26	No Data	No Data
Weedon Rd 6	28	29	29
Spencer Bridge Rd 1	44	41	36
Spencer Bridge Rd 2	38	38	34
Harlestone Rd	39	41	41
Spencer Bridge Rd 3	44	49	48
Spencer Bridge Rd 4	34	34	39
Spencer Bridge Rd 5	30	33	33
Aberdeen Terrace	41	44	40
St James Rd 1	34	37	38
St James Rd 2	34	35	31
St James Rd 3	40	42	42
St James Rd 4	38	40	37
St James Rd 5	37	No Data	No Data

3.3 Core questions

- 3.3.1 The Scrutiny Panel devised a series of core questions that it put to key witnesses over a cycle of meetings (Copy at Appendix B).
- 3.3.2 Key witnesses provided a response to these core questions at the meetings of the Scrutiny Panel held on 5 December 2016, 16 February 2017, 9 March and 27 April.
- 3.3.3 Salient points of evidence:

Cabinet Member for Environment and Senior Environmental Health Officer, Northampton Borough Council

- There is increasing knowledge about the health impacts of air pollution, i.e. that it doesn't just cause asthma but can lead to serious issues affecting mortality and morbidity. It is worth pointing out that PM2.5 is a Public Health Outcomes Framework indicator, therefore working with public health should be prioritised
- There has been significant interest from the County Council's public health team and the link between air quality and health. There is experience within other partners that could be used to help promote messages, and also the consideration for combining messages regarding exercise and health, e.g. the benefit that switching to exercise may have on health and air quality.

- As a passive intervention, reducing vehicle emissions would have the greatest benefit on more deprived communities. Referring to the outcome of the consultation on the LES responses suggests that understanding of air quality issues amongst the Northampton population appears to be good. However, to further understanding of issues there are a range of suggestive (soft and hard) methods which could be incorporated to raise public awareness.
- There is further work required to revise and refine the Council's webpages for air quality to promote the LES and inform the public as to how they can do their part to improve air quality. This should include raising the awareness of the issues surrounding diesel car emissions and the mixed messages that the public receive from the Government who provide incentives through vehicle excise duty (VED) to many diesel car models. This leads to a perception that diesel cars are environmentally friendly and cheaper to run, however they are more significant contributors of oxides of nitrogen (NOx) and fine particulate. They can be more expensive to run and maintain based on motorists who average less than 10,000 miles per year. There is substantial local employment in Northampton with a significant number of local and national employers. There is scope to engage with local business for promoting information regarding air quality and the benefits of using low and ultra-low emission vehicles through targeted travel plans. Incentives could be provided to employees to promote and reinforce uptake of cleaner technologies.
- There could also be a drive around promotion of messages such as using public transport vehicles to display messages, e.g. buses, taxis and e-hire bikes as mobile advertising to promote messages. Signage around the town used for traffic updates could also have a similar input. The LES has articulated project ideas for implementation such as the prospect of 'try and buy'. The principle is to allow a free week's hire of an electric vehicle (EV) for residents of new development schemes (seeking for the developer to cover cost through planning condition or s106) to allow residents to trial the technology and helping to inform decisions when making a new vehicle purchase. This could be supported with information linked to air quality, e.g. the benefit of shifting away from petrol/diesel. The Council is also in a position to incentivise low emission vehicles through its car parking. This could be the introduction of free or subsidised parking (advertised to raise awareness for others) for anyone with a low emission vehicle. Similar steps could be taking for a variable levy regarding parking permits issued on permit holder streets in the town. Previously the town has had awareness days for projects, such as 'In town without my car'. A similar short-term project could be trialled under the umbrella of air quality to raise local awareness. Harder measures which could be used to raise awareness and understanding of air quality could include the setting of emissions standards. This has already been pursued in respect of taxi emission standards, and is being pursued through discussion with local bus operators. Speaking with these stakeholders has raised the

profile of air quality and prompted discussion at licensing committee meetings for the private hire trade already. A more formal approach for setting of emissions standards would be the introduction of a clean air zone (CAZ) for the town. This would set a minimum emission standard for the town, and dependent upon feasibility could be introduced as a voluntary CAZ. A CAZ would be a very public process, but in addition would require signage to inform people they are entering a CAZ to promote awareness. Workplace parking levy (WPL) has been mooted as another approach for setting emission standards by charging employers for parking spaces. The revenue this generates can be paid back into highway projects, but this can only be implemented by a highway/transport authority. The Council would be excluded from pursuing a WPL and would not have control on how revenue generated could be spent. So far only a single Council has pursued WPL (Nottingham) which introduced a WPL in 2013. However, a WPL could raise awareness of air quality issues where its purpose is to introduce charging against employers to offset the peaks at congestion times.

- The causes and impact of air pollution are documented in the Low Emissions Strategy.
- The initial drive behind developing the LES is because of the Air Quality Management Areas (AQMAs) across the town. These were declared due to emissions associated with road transport sources. However, there is a growing body of evidence which identifies a number of health impacts associated with exposure to poor air quality, even where levels are below those mandated in national legislation. There are stronger associations for a detrimental impact upon health where housing and other types of sensitive receptors are situated close to significant transport sources, e.g. roads. Contributors to air pollution are predominantly associated with combustion sources, such as industry, domestic and transport sources. Local pollution in Northampton will be a mix of local, regional, national and international sources. Locally vehicle emissions are the most significant source and growth in diesel car numbers has been a key contributor to locally produced sources of emissions. In a very broad sense there will be a local background for pollutants comprised of emissions from regional, national and international sources. Locally generated pollution will add to this background, and where there are locally generated pollution sources these can create hotspots, e.g. near to busy roads.
- In pursuing the themes of the NLES work has already developed to set emissions standards for private hire/hackney drivers. This work is in progress and going through a process of public consultation to agree the setting of a progressive emissions standard. This work has been instigated from the NLES and other local pressures, and is now being led by the licensing department. NBC is also actively seeking to make applications for grant funding to support measures for low emission vehicles/infrastructure. It is also

proposed to make capital bids for funding to support trial projects, such as the possibility of low emission taxi demonstrator trial to create confidence within the local private hire/hackney trade and support a shift towards cleaner vehicles. Officers have also met with local bus operators to discuss the setting of emissions standards for buses that operate through Northampton. Officers will liaise with County to use Highways powers to aim to set emission standards for buses from 2018. Officers have also developed guidance with regard to public sector tendering and contract awards as part of Social Value procurement. This has included measures in the planning guidance for suggesting the setting of emissions standards on commercial development schemes. The Council has consulted on proposed local guidance for planned new developments to encourage developers to incorporate low emission measures into their development. This is proposed to stand alone as an action plan and has been developed to reflect national planning policy. There is also an aim that this builds on limited local policy, e.g. BN9, but also as local planning policy develops low emission measures become a standard requirement for new development, where feasible to do so. The LES has been designed as a platform for inward investment, including securing funding from Government programmes e.g. OLEV, DfT, AQ Grant. Where the local authority has a published action plan (or equivalent) for air quality, it is placed in advantageous position to secure funding to support improvement projects.

- Transport Planners do not necessarily consider air quality
- There are around 400 air quality management area centres in England alone.

Director of Public Health, Northamptonshire County Council

Training / awareness raising:

Training / awareness raising for Councillors could be undertaken by inviting relevant experts to present to Councillors. For example an East Midlands Air Quality Network has been established to share information and good practice across the region, led by Public Health England. Public Health England representatives could be invited to speak to Councillors to help increase their understanding if required / appropriate. Councillors / officers from other local authorities who have been addressing air quality issues could be invited to speak of their own experiences and challenges in doing so. Relevant local medical practitioners could be invited to speak about certain medical conditions and how they are affected / exacerbated by exposure to air pollution.

Assessing impacts of relevant decisions on air quality:

Air quality will indirectly be affected by a whole range of policies and decisions, particularly those that influence road transport levels and patterns. Decisions that are made on other topics, such as town centre management, parking management, planning decisions etc. could clearly identify their likely impacts in relation to air quality, thus raising awareness amongst all those involved in those decisions of how other decisions could have air quality implications.

Public understanding

It is important that the public are made aware of air quality issues, in order that they can understand any risks and respond to them appropriately. Indeed, in many cases the public expect to be made aware of such risks. Awareness / understanding amongst the public could also be very important in gaining support for local initiatives to address air quality issues.

However such communications must be handled sensitively as research shows that raising awareness of certain health risks can be particularly alarming to the public, especially if they don't feel that they have much control over those risks. For example, while people may feel that they have control over the amount of physical activity they undertake, the amount of alcohol they consume or whether they smoke or not, they may feel that they have little control over their exposure (or that of their family) to air pollution. (This is sometimes referred to as a 'fright factor'.) As such raising awareness of the risks of air pollution without identifying any specific ways in which individuals can reduce that risk could be alarming and potentially counterproductive.

Specific guidance about communicating with the public about air pollution has been produced and should be considered. This includes 6 key principles:

- A. Use information about what particulate matter is made of and where it goes to get the broader topic of air pollution onto the agenda – not statistics about health consequences.*
- B. Don't raise public concern about air pollution unless you can at the same time satisfy people's desire to do something to reduce their exposure.*
- C. Focus on what is known for certain about the health consequences of air pollution.*
- D. Talk about air pollution as a problem linked to specific places – and not as a general problem of the atmosphere.*

- E. Keep the focus of communications on practical improvements – not long-term solutions.*
- F. Demonstrate leadership and empower communities, instead of just expecting individuals to change their behaviour.*

These issues should be considered when communicating about air quality issues either through NBC's own communications or via local press / media.

Causes of air pollution:

NCC's Public Health team is aware that the causes of air pollution can be wide ranging, such as industrial sources, combustion from heating etc. However in general air pollution from road transport is often the most relevant air quality concern as it is often co-located with exposed pedestrians, homes, schools, shops etc. The Public Health team understands from the information provided / published by NBC that the primary sources of concern in relation to air quality in Northampton are indeed those from vehicle emissions.

NCC's Public Health team is also aware that trying to achieve improvements in air quality can be challenging, especially when other policy objectives (such as encouraging people to travel into town centres to support the local economy) can potentially contribute to negative air quality impacts

Impacts of air pollution:

NCC's public health team is aware of the impacts of air pollution on health and wellbeing.

Individuals - The specific impact of air pollution on any one individual will always be complicated and will depend on a range of factors relating to that individual's existing health and also the nature and extent of their exposure to pollutants.

However there is increasing evidence that air pollution is a serious public health issue which can and does have significant health and wellbeing impacts. There is now evidence that long-term exposure to everyday air pollutants over months to years contributes to the development of cardiovascular disease (conditions affecting the heart or blood vessels), lung cancer, and respiratory diseases (e.g. asthma), as well as exacerbating them in people who already have those conditions.

In particular, the more vulnerable members of our communities are likely to be those affected the most, such as the young, the old and those with existing medical conditions.

It is also acknowledged that, while EU and UK air pollution limit values are in place to protect human health, there are no absolutely safe levels of particulate matter (PM) and evidence suggests that health effects can still occur well below these limits.

Due to the nature of the effects of air pollution, it is difficult in individual cases to identify the exact nature and extent of the role of air pollution in death or illness. Air pollution will rarely be the sole cause of illness / death and would not be recorded as such on a death certificate for example. It is more likely that exposure to air pollution will exacerbate an existing condition or contribute to an illness / death along with other factors. It will always therefore be impossible to state the exact level of deaths or illness that are caused by air pollution in an area.

However modelling has been undertaken that gives an overview of the likely contribution of some air pollutants to death rates. It has been estimated that there are 44,750 – 52,500 annual equivalent attributable deaths in the UK due to the impact of Nitrogen Dioxide (NO₂) and particulate matter PM. This has an annual social cost of £25.3bn - £29.7bn.

Public Health England uses PM_{2.5} as an indicator for mortality attributable to particulate air pollution. It was estimated that as at 2010, across Northampton, 6.1% of people aged over 25 would die prematurely each year because of particulate air pollution: equivalent to 102 deaths per year or 1168 associated life years lost.

Further work is being undertaken nationally to better understand the impact of Nitrogen Dioxide on Health and Wellbeing.

The Public Health Team is aware of the actions that have been proposed in the draft Low Emissions Strategy, which NBC consulted on in late 2016. The Public Health team's views on those actions were identified in the formal response to the consultation. In summary the Public Health team felt that the measures identified in the draft Low Emissions Strategy were unlikely to achieve the desired improvements in air quality and therefore meet the air quality standards identified in current legislation.

With regards to how actions to reduce air pollution could be publicised more widely, the following could be considered:

- Relevant actions could be published more prominently on NBC's website, rather than within substantial strategy documents.
- NBC could use its social media channels to raise awareness.
- Messages about air pollution could be combined with other relevant public health messages – e.g. active travel such as walking / cycling can contribute to the individual's wellbeing as well as reducing contributions to air pollution.
- NBC could report its strategy and associated actions formally to other relevant organisations and networks, such as the Northamptonshire Health & Wellbeing Board, health organisations, economic development partnerships, voluntary sector etc.

NCC's Public Health team has worked with NBC to inform the development of the draft Low Emissions Strategy and is happy to continue to do so. This is primarily through identifying the health and wellbeing implications of air pollution and contributing to efforts to address them.

The Public Health team is also working with NBC and other Northamptonshire Districts through the East Midlands Air Quality Network to try to learn from other areas with regards to addressing air quality.

The Public Health team also promotes physical activity through its direct activities and through its commissioned health and wellbeing services. Encouraging physical activity through active travel in Northampton could contribute to the Northampton Low Emissions Strategy by encouraging people to walk / cycle for personal wellbeing benefits, as well as wider air pollution benefits. While the funding environment remains extremely challenging for the Public Health service, as for other public sector organisations, the Public Health team will seek to contribute to air quality related initiatives as best as it can.

The Public Health team can also contribute to any activities intended to raise awareness of air quality issues amongst the public, including identifying guidance that identifies effective ways of doing so.

Director, Carbon Management Team, Northamptonshire County Council

- Publication of the Borough Council's emission statistics may be a pertinent exercise to better understand what actions need to be taken at the Council level to positively contribute towards reducing air pollution. The strategy

acknowledges the need to encourage the Council to implement policies which incentivise the uptake of Low Emission Vehicles but it does not determine the scale or criticalness of this need. A recent study undertaken by NCC's Energy and Carbon Management Team, based on data which has been externally audited (against the ISO50001:2011 standard), found that in 2015/16, the carbon emissions associated with NCC's business travel decreased by 46% compared to 2012/13. This resulted in a decrease of carbon emissions of 892tCO₂ compared to 2012/13. The Strategy recognises the need to build "our air quality monitoring and modelling capability to inform evidence-based decision-making". Air quality monitoring may also be of interest to the public and Councillors, and may assist in developing their understanding of air quality issues, particularly if the area/constituency in which they live has poor air quality (people may be more likely to want to do something about a problem if there is evidence that the problem exists and it is personal to them). Critical to this however is making this data widely available and accessible, and currently it is not. A starting point may be the use of data compiled by Defra, plus utilisation of their document 'What are the Causes of Air Pollution' which could be adapted for local use. In the longer term, a real time emissions reporting system may be of consideration. Additionally, research studies and news articles can also help to engage Councillors and the public. Consider collaboration with the University of Northampton, or other research establishments, and disseminating the results of any studies broadly within appropriate media channels. There may be a number of local students interested in undertaking empirical research in this field for relatively low cost.

- Some of the causes and impacts of air pollution in Northampton are identified within NCC's Northamptonshire Climate Change Strategy 2014-17 and NCC's Northamptonshire Highway Air Quality Strategy.
- Without review of the LES it is only the actions that NCC and partner organisations – as captured within the Northamptonshire Climate Change Officers Group Action Plan – are taking within Northampton which are known in any detail for comment. Regarding wider publicity of actions being taken by the Borough Council to reduce air pollution, it may be that a concerted message is one which would be better received. It is clear that Northampton is targeting growth and economic development, and that much of this is targeted in the town centre, where the air quality is poorest. Thus, is there an opportunity to strengthen the focus placed upon achieving both economic growth and significant improvements in air quality?
- NCC's Northamptonshire Climate Change Strategy 2014-17, Northamptonshire Highway Air Quality Strategy and Local Transport Plan detail the actions planned by NCC pertaining to the three themes of the Northampton Low Emissions Strategy. Specifically, the works being undertaken by the NCC in highways transport have concentrated on the dual themes of freeing up congestion at key junctions, e.g. Gas Street roundabout,

Victoria Promenade/Bedford Road, and also encouraging other modes of travel through initiatives such as the introduction of the Cycle Connect scheme (joint with NBC) and the Smart Corridor/Commuting initiative on which work has recently started at St James, with further works to follow on the Kingsthorpe and Kettering Road corridors. NCC has also consulted with all staff during the development of a new staff Travel Plan, which establishes travel policy and guidance in light of the County Council's move to One Angel Square in Northampton over the next few months. There are highly innovative low emission approaches being followed including minimal staff car parking, park and ride, Taxi app (tailor made personal commuting options for staff), pool vehicles, etc. NCC is willing to consider funding, supporting and/or contributing towards measures if it is recognised that they will provide a discernible benefit and also demonstrate that they can save the Council money.

- Publication of current low carbon travel initiatives within the area may help to encourage more people to engage with the low carbon transport agenda but details are important. E.g. Figure 7 of the LES does show an E-Car Club Hub which is no longer in use but it is not named. So, it does little to facilitate public accessibility to electric vehicles. If not within the Strategy itself, is the Action Plan considered an appropriate place to reference specific initiatives? If so, community car clubs and the Cycle Connect scheme could be highlighted as a minimum. Furthermore, with NCC's move to One Angel Square, and the forthcoming new University campus becoming operational, there will be new challenges and opportunities that will need to be considered.

Senior Manager, UNO Buses

- It needs to be ensured that the impact of un-necessary car journeys is made clear and conversion to public transport and benefits of public transport, park & ride are sold. Impact of air pollution in peoples' health must feature as the key need to improve air quality for present and future generations. Information sources e.g. local newspapers to community and businesses. "Doing nothing is not an option".
- The cost to the health service of resource taken up caring for persons with ill health caused by poor air. Lost time and productivity at work because of this. Impacts of diesel particulates, NOX, CO2 on respiratory diseases, asthma, cancers. Also contributes to climatic change, damage to trees and building erosion and premature human deaths.
- NBC should target the public and businesses by roadshows, newspaper, news letters, targeted social media
- Co-ordinated public transport to suit the needs of the University and the people of Northampton (our market place). Continued investment in the

Northampton fleet to reach Euro 5 & Euro 6 standards. Unable to set time frame. Uno is interested in joint measures or joint funding to alternative fuel types and possible repowering of older vehicles. Uno would support such initiatives and measures with the Borough and County to achieve these objectives. UNO would need to understand the measures, timescales involved and work with the borough for evaluation and implementation.

- UNO has been working closely recently with Officers at NBC on providing bids for alternative fuel vehicles as a joint initiative to which unfortunately UNO was un-successful in obtaining this. UNO remains keen on alternative fuel types for evaluation in the town and new University campus.
- The fleet of vehicles in Northampton is 25, the average age being 8 years.
- The composition of the fleet:
 - 10 vehicles Euro 3
 - 9 vehicles Euro 5
 - 4 vehicles Euro 4
- UNO works closely with the University of Northampton
- UNO has been operating in Northampton for 3-4 years. The market conditions are very challenging.
- The investment needed to put on five electric mini buses would be £5-6 million, including initial set up and charging points (at depots and on campus)
- A typical battery for a bus lasts 85 miles

Managing Director, StageCoach

- StageCoach believes that Northampton Borough Council should highlight the damaging effect of pollution in terms of buildings emissions, transport and worsening road traffic congestion by means of articles in its publications, presentations at local community based forums and through liaison with educational establishments and businesses.
- Stagecoach Midlands is aware of the damaging consequences of poor air quality on health and life expectancy. UNO believes that there is a need for the local authority to encourage all businesses, other establishments and home owners to take steps to reduce their environmental footprints through introducing more energy efficient systems and practices. There is also a key need to address the ever worsening problem of traffic congestion in the Central Northampton area, which causes considerable additional traffic related pollution. The Northampton road system is currently unable to cope at times of key demand or when a small traffic light problem or a minor road

traffic accident occurs. Ultimately actions will have to be taken to restrict car access to many areas of the town, as there is little scope to increase road capacity. Any new policies designed to restrict vehicles on the basis of emission levels should not only cover buses and taxis, but also diesel cars, lorries and vans as these cause more pollution than public transport. The growth of internet shopping is also resulting in increasing problems with van deliveries in central areas, as more customers seek to have their goods sent to their places of work rather than their homes.

- Stagecoach is aware of Northampton Borough Council's "Northampton Low Emission Strategy 2016-2021", its NLES Air Quality planning Technical Guidance and 6 it's Northampton Borough Council Low Emission Fleet Procurement Guidance.
- During the last five years Stagecoach Midlands has spent over £10.2 million purchasing 66 brand new Euro V low emission buses for its Northampton depot - 57 single decks and 9 gold double decks. As a result of this investment the company's fleet of 104 buses at Northampton depot currently consist of:- 75 Euro V single decks and double decks 10 Euro IV single decks and minibuses 19 Euro III double decks. The company has committed to replace these Euro III double decks with newer vehicles of at least Euro IV standard by the end of November 2017. It is not the intention to seek to upgrade the emissions levels of these Euro III vehicles through conversions, as it is Stagecoach's experience elsewhere that such conversions result in higher breakdown rates and unreliability. The average age of Stagecoach Midlands Northampton fleet is 5.5 years at the present time, well below the Government's target to operators of 8 years.
- Stagecoach Midlands strategy is to invest in the latest low emissions diesel engines buses in order to maximise the environmental benefit derived from this investment in new vehicles. Given that Northampton is not an area where high levels of profit are generated, as is evidenced by the withdrawal of First from the town a few years ago, and the very high cost of ultra low emission buses compared to conventional low emission vehicles, it is the company's view that in future it should invest in Euro VI vehicles rather than hybrid or electric ones. The available finances will enable the purchase of a higher number of Euro VI buses that ultra low emission vehicles, which will enable environmental improvements to be secured on a greater number of routes that would otherwise be the case. The level of emissions from Euro VI buses are a fraction of those produced by Euro III and older vehicles. Between 2018/2019 and 2019/2020 it is Stagecoach Midlands plan to take delivery of 9 Euro VI single decks for service 1 and 14 new Euro VI double deck vehicles for service X4 which is based at Kettering, but provides one of the towns key inter urban routes.
- The central road system in Northampton cannot cope with the volume of traffic using it in peak times, there is a need to ensure central roads are used

only by traffic entering/exiting the town; rather than being used as a through route.

- Pollution problems are created when vehicles are idling in heavy traffic.
- The organisation has invested £10.2 million on 66 low emissions buses in the last five years and intends to invest a further 33.8 million on 22 Euro 6 standard low emission vehicles for routes 1 and x4 between now and the beginning of 2020.
- Many low emissions buses cost in the region of 80-100% more to maintain.
- It would help the congestion in the town and pointed out that successful schemes elsewhere normally were located exiting main bus corridors in to towns. This enabled cost to be reduced by reaching agreements with bus operators to use the exiting routes to divert via the new park and ride, making use of the spare seats that are available.
- A park and ride could be viable in Northampton but would require NCC, NBC and the operators to all work together. The ideal location would be on the edge of the town, and on or close to a high frequency bus service, which could be diverted/extended to the site. There would need to be incentives for the motorist to use park and ride.
- A discount Mega Rider Ticket Scheme officer had been put forward to Northamptonshire County Council to help reduce the traffic congestion impact of the relocation of its staff to the Angel One site in the town centre.
- There is a need to obtain a better balance free car parking and minimising pollution and congestion. Problems in Northampton often occur during the late afternoon period, particularly in the months leading up to Christmas, when shoppers leave the town at the same time as people leaving work, severely worsening the congestion in the town centre.
- Options that help to increase road capacity in the town centre area should be looked at.
- Adequate off street parking in new residential developments is of key importance in enabling bus services to negotiate these estates without impairment. It is also vital to ensure that core spine routes are built through adjoining residential developments to enable the maximum level of bus service to be provided and to help ensure that such services become commercial.
- The St James Smart Corridor will help to speed up buses.

Electric Corby

Electric Corby provided details regarding its initiative – [Electric Vehicles for Private Hire](#)

Secretary, Northamptonshire Green Party

- There is obviously a lack of awareness of Northampton's air quality issues, and this manifests itself in a lack of understanding. Partly, in the Green Party's opinion, this is because the issue has not been addressed with the level of seriousness that it merits. The town centre has had Air Quality Management Areas for over 10 years, but there is little evidence that any consistent action has been taken specifically to address these issues. A local education campaign is urgently required. This should communicate why Northampton has air quality problems, what causes those problems, and what the Green Party can do, as members of the public to mitigate against this. The Green Party would suggest that this should include : - Advertising in the town centre - Engagement with school groups (at assemblies) - Ensure that information on the website is easy to find and to understand With regard to councillor understanding, I would suggest that this probably differs depending on the individual councillor. From attending the Scrutiny panels, I can see that the level of understanding varies, but that the councillors are trying to actively engage with and understand the issues. Within the full council, there does seem to be a general attempt to engage with the air pollution issue, but I think motions such as the one regarding idling vehicles (in December) indicate that there is a requirement to more adequately ensure councillors are up to speed with the issue, to ensure that the issue can be debated with relevance.
- The Green Party is aware that the Air Quality Management Areas in Northampton are because of increased levels of Nitrogen Dioxide, generally associated with the prevalence of diesel vehicles, sitting in congested traffic. This can have impacts on the health of the population, and as Public Health England's figures have shown, the frequency of respiratory illness in Northampton is higher than elsewhere in the County. The Green Party has produced leaflets about the effects of air pollution. However, the Green Party is also conscious that the levels of Nitrogen Dioxide may well be elevated at locations outside of the AQMAs. The Green Party's measurements showed high levels of pollution at Cheyne Walk, Northgate Bus Station, and Spencer Bridge Road. This indicates to the Green Party that the Air Quality problem in Northampton, particularly in the town centre, is a wider problem than is recognised. Currently, there is a focus on the air pollution problem within the AQMAs and this may mean that issues outside of those areas do not get the attention that they require or that, by attempting to tackle the issues within the AQMA, the problem could be moved to an adjacent area

- The Green Party considers that there is important work to be done in public awareness, and that this will continue to be critical if wider communities are going to take individual actions that will help to reduce vehicle emissions. The Green Party considers that the work it has been doing over the past year is generally to assist with public awareness of the air pollution problem, and the Green Party plans to continue this. The Green Party would be happy to work with the council to improve public awareness and to suggest examples of good practise in other councils.
- In response to one of the Green Party's questions in the last year, the Council responded with the statement that rather than just focus on individual areas, they were going to take a holistic view and deal with air pollution across the town as a whole. This seems to us to be a fair response, but it also seems at odds with the current setup of the Air Quality Management Areas. The following picture shows the rough placement of the Air Quality Management Areas within the town centre (marked red) as can be seen, all of these are contained within a rough orbital of the town centre around 2km from East to West and 1.5km from North to South.



- The Green Party's measurements over the past year have shown elevated levels at Cheyne Walk, Northgate Bus Station and Spencer Bridge Road. None of these are within the current AQMAs and the Low Emissions Strategy will have limited power to deal with air quality issues within them. The Green Party would suggest that the Town Centre AQMA be expanded to encompass all of the areas within this central area. An example is shown in the diagram below.



- This would reinforce the Low Emissions Strategy and really give it jurisdiction across the whole of the Town Centre, and, in the Green Party's opinion, prevent some of the disconnects that currently sit within the Borough Council management of the AQMAs.
- The Green Party highlight the continuing issues with the Kingsthorpe Corridor. This area is responsible for some of the highest levels of air pollution within Northampton, and with the additional houses planned for Kingsthorpe in the near future (Buckton Fields, Northampton University, Kingsthorpe Middle School) the issue in this area is going to get worse. The Green Party's measurements have shown illegal limits on the A508 outside of the current Air Quality Management Areas, and the Green Party would also suggest that the AQMA in Kingsthorpe should be extended to the North to reflect these problems.
- Councillor awareness of air quality is improving.

Director, Highways, NCC and Director, Carbon Management Team, NCC

- NCC has a Highways Air Quality Strategy and various other Transport Strategies. There are Town Transport Strategies for each main town within the county. In drawing up and implementing the Northampton Town Transport and the Highways Air Quality Strategies there is a lot of joint working between NBC and NCC, for example NBC and NCC have worked together on Sustainable Transport and the Cycle Scheme, Smart Corridor and Smart Community Schemes.
- No one is responsible for putting up bus shelters, although various bodies can. The challenge for funding is the maintenance of them.

- Officers abide by Government Planning Rules regarding Highways consultation for planning applications. The developer has responsibility to mitigate any impact that the development would create and gave examples.
- The Highways Team is involved in commenting on the Emissions Strategy and the Team wants to increase activity in the town centre. Having activities in the town centre makes travel by bus easier. One challenge is, when the Team did a survey of car parks there was excess capacity, however, this is no longer the situation.
- The Government has a green bus fund.
- The timescale of the North West Relief Road is 2019-2021.

NFA

To be added

Parish Councils

To be added

Community Groups

To be added

4 Desktop Research

- 4.1 Desktop research was undertaken regarding organisations and Local Authorities noted for their best practice procedures in Emissions.
- 4.2 Desktop research has been undertaken regarding good practice Low Emissions Strategies elsewhere.
- 4.3 Colchester Borough Council, Southampton City Council and Bradford Council have published Low Emissions Strategies.
- 4.4 The West Midlands came together as a collective Group and undertook work regarding Low Emissions. . The Low Emissions Towns and Cities Programme is a partnership comprising the seven West Midlands local authorities, (Birmingham City Council, Coventry City Council, Dudley MBC, Sandwell MBC, Solihull MBC, Walsall Council and Wolverhampton City Council) working together to improve air quality and reduce emissions from road transport.

- 4.5 The Sussex Air Quality Partnership, also as a collective Group, undertook work regarding Low Emissions
- 4.6 Full details of the desktop research undertaken are provided at Appendix C.

5 Community Impact Assessment

- 5.1 This Scrutiny Review provided Scrutiny input into the Action Plan for the Council's Emissions Strategy
- 5.2 The Scrutiny Panel, in having regard to the general equality duty, was mindful of the protected characteristics when undertaking this scrutiny activity; so that any recommendations that it made could identify disproportionate and unintended potential positive and negative impacts on any particular sector of the community, including any potential mitigation required. This was borne in mind as the Scrutiny Panel progressed with the review and evidence is gathered.
- 5.3 In order that the Scrutiny Panel obtained a wide range of views, a number of key witnesses provided evidence as detailed in section 3 of this report.
- 5.4 Any recommendations regarding homelessness would consider impact and potential mitigation as appropriate and relevant across all protected characteristics. Impact assessments are integral to any reports including actions plans.
- 5.5 Details of the Community Impact Assessment undertaken can be located on the Overview and Scrutiny [webpage](#).

6 Conclusions and Key Findings

- 6.1. After all of the evidence was collated the following conclusions were drawn:

Emissions Strategy Action Plan

- 6.1.1 The Scrutiny Panel supported the production of the Borough Council's Emissions Strategy and Action Plan; noting the measures including that will improve air quality in Northampton. The Scrutiny Review had identified further suggestions for improvement for inclusion within the Action Plan, as detailed below:

- 6.1.2 The Scrutiny Panel was pleased that electric charging points are starting to be installed around the town. The scrutiny Panel recognises that there is currently low demand for charging points and welcomed the fact that developers will put the cabling in for charging points, so that they can be activated at a later date.
- 6.1.3 The Scrutiny Panel conveyed concern about the building of houses near to busy roads and the problem of this needs recognition. The draft NICE guideline does indeed refer to minimising the exposure of vulnerable groups to air pollution by siting buildings away from busy roads and ensuring facilities such as schools, nurseries and retirement homes are located in areas where pollution levels will be low. The Scrutiny Panel emphasises that this needs to be considered in relation to development proposals and planning decisions.
- 6.1.4 The Scrutiny Panel welcomed the discount Mega Rider Ticket Scheme officer that had been put forward to Northamptonshire County Council to help reduce the traffic congestion impact of the relocation of its staff to the Angel One site in the town centre.
- 6.1.5 The Scrutiny Panel realised that a park and ride could be viable in Northampton but would require NCC, NBC and the bus operators to all work together.
- 6.1.6 Evidence received highlight the need to obtain a better balance free car parking and minimising pollution and congestion. Problems in Northampton often occur during the late afternoon period, particularly in the months leading up to Christmas, when shoppers leave the town at the same time as people leaving work, severely worsening the congestion in the town centre.
- 6.1.7 The Scrutiny Panel was pleased to note that the St James Smart Corridor will help to speed up buses.

Councillor and Public Awareness of Air Quality Issues

- 6.1.8 Evidence received highlighted the need to look at how awareness can be raised regarding air quality and new initiatives brought in, for example a suggested initiative being the offer of a voucher for a week's trial of an electric car, and "Don't use the car for a day" initiative.

- 6.1.9 There are around 400 air quality management areas in England alone.
- 6.1.10 The Scrutiny Panel welcomed the report that £8 million had been approved for the North West bypass. The need for an orbital road system was highlighted. It was acknowledged this would cost in the region of £150 million. Busy and complex traffic junctions will continue unless a more strategic solution is found.

Actions taken by Partner Agencies

- 6.1.11 Evidence detailed that Transport Planners do not necessarily consider air quality. The Scrutiny Panel felt that there is a need to consider how Northampton Borough Council (NBC) communicates with Authorities/Agencies that are pushing for developments on the edge of the boundary of Northampton. The Scrutiny Panel was pleased that cross border meetings do take place but there is a need to improve their effectiveness.
- 6.1.12 The Scrutiny Panel welcomed that NBC has a good working relationship with StageCoach.
- 6.1.13 Evidence received highlighted that there is very good working by Agencies but also an element of disconnectivity between NBC, NCC, Public Health and the public. There is a need to link the Emissions Strategy to the Health and Wellbeing Strategy. Agencies need to work together to tackle this. Agencies often have different priorities.
- 6.1.14 NICE has produced a draft guideline document around outdoor air quality and health.
- 6.1.14 The Scrutiny Panel realised that no one Agency is responsible for the installation and maintenance of bus shelters, some are the responsibility of NBC, some NBC and others commercial organisations or Parish Councils. The cost of a bus shelter is around £8,000.
- 6.1.15 Evidence received highlighted that options that help to increase road capacity in the town centre area should be looked at. The Scrutiny Panel felt that it would be useful to investigate the feasibility of changing the entry and exit of the Mayorhold car park and whether it would help congestion.

- 6.1.16 Evidence received showed that it is vital to ensure that core spine routes are built through adjoining residential developments to enable the maximum level of bus service to be provided and to help ensure that such services become commercial.
- 6.1.17 The Scrutiny Panel supported the information from Electric Corby regarding its initiative – Electric Cars for Private Hire should be shared with Private Hire Operators in Northampton

7

Recommendations

- 7.1 The purpose of the Scrutiny Panel was to provide Scrutiny input into the Action Plan for the Council's Emissions Strategy. Scrutiny Panel 4 therefore recommends to Cabinet that:

Emissions Strategy Action Plan

- 7.1.1 The Scrutiny Panel notes that the Emissions strategy only covers the period till 2025. A longer term strategy is devised and implemented so that major stakeholders in the town will have a better understanding of the goals of the town, and can plan ahead to meet them.
- 7.1.2 The scrutiny Panel notes that while Vehicle emissions contribute to poor air quality, there are other sources of pollution in the town, including residential, commercial and industrial activity. The Borough Council investigates what measures can be taken, in planning, licensing and the local plan, to help mitigate any adverse effects, and to ensure that any developments in the future do not adversely contribute to poor air quality.
- 7.1.3 The Borough Council takes the initiative with Electric charging points. Borough Owned car parks should have charging points installed so that those with electric cars can charge them while they shop. These charge points should allow preferential parking to encourage the use of electric vehicles.

- 7.1.4 The NLES contains a procurement guide which seeks to emphasise low emission procurement. The procurement guide that has been developed is championed, trialled and applied throughout Council procurement policy where possible, and use this as best practice for investigating the benefit of whole life costing for ULEV. A local employer is identified to trial this as a best practice example.
- 7.1.5 There is a requirement for any new commercial development to have provision for car charging points. Furthermore, the Council should work with existing commercial developments such as Sixfields, Riverside retail park and major supermarkets to provide charging points for electric vehicles.
- 7.1.6 Northampton Borough Council works with private companies to provide electric charging points at minimal cost to the tax payer in those places not covered above and where there is demand.
- 7.1.7 The Scrutiny Panel informs Cabinet that it supports the production of the Borough Council's Low Emissions Strategy and Action Plan; noting the measures included within it that will improve air quality in Northampton, which places an emphasis on emissions reduction (e.g. shift to cleaner alternative vehicles and reduction of users on Northampton's roads.)
- 7.1.8 Enquiries are made to more joined up or expanded the AQMAs in Northampton.
- 7.1.9 The following are included within the Low Emissions Strategy Action Plan:
- Where it is not feasible to install full electric vehicle recharging points, developers are encouraged to install cabling for electric vehicle charging points so that they can be activated at a later date.
- The draft NICE guidelines in respect of minimising the exposure of vulnerable groups to air pollution by siting buildings away from busy roads and ensuring facilities such as schools, nurseries and retirement homes are located in areas where pollution levels are low is considered in relation to development proposals and planning decisions.

The Low Emissions Strategy links to Northamptonshire County Council's Health and Wellbeing Strategy.

Northampton Borough Council works with Northamptonshire County Council and bus operations regarding the viability of a park and ride scheme for Northampton.

The times that free parking in Northampton are offered is investigated to ascertain whether a better balance of free parking and the minimisation of pollution and congestion is achieved.

- 7.1.10 Enquiries are made with Planning Services regarding how the most effective way bus routes can be maximised through the use of spine roads and direct through routes in developments; encouraging bus routes and off street parking within residential areas to allow for a more free flow of public transport.
- 7.1.11 Consideration is given to the designation of a town centre wide air quality management area.
- 7.1.12 Investigations are carried out into the feasibility of a Clean Air Zone for Northampton.
- 7.1.13 Investigations into potential sources of funding to develop an electric taxi trial and on-street electric charging points for residential areas are carried out.
- 7.1.14 Support is given to a mitigation as standard approach for all new developments regarding air quality impact.

Councillor and Public Awareness of Air Quality Issues

- 7.1.15 Initiatives to raise awareness regarding air quality are investigated; such as the offer of a voucher for a week's trial of an electric car and "Don't use the car for a day" initiative.
- 7.1.16 Air quality information is published on information boards on main roads into the town.
- 7.1.17 Information regarding Electric Corby's Initiative – Electric Cars for Private Hire is circulated to all Private Hire Operators in Northampton.

Partner Agencies

- 7.1.18 The Terms of Reference of Cross Border Councillor Meetings regarding developments on the edge of Northampton are investigated to improve the effectiveness of the meetings.
- 7.1.19 A feasibility study is undertaken regarding the viability of changing the entry and exit of the Mayorhold car park and whether this would help congestion, taking into account of the development of the Greyfriars site.
- 7.1.20 The scrutiny Panel notes that partner agencies and councils are also undertaking work on air quality. To ensure that there is co-operation between County, borough, district and other stakeholders, a cross council work group is established so that co-operation is improved.
- 7.1.21 The Licensing Committee works with partners such as the Hackney carriage association to promote the use of low emissions vehicles. The licensing committee should work with partners to formulate a robust strategy when licensing new vehicles in the town
- 7.1.22 The Borough Council works with partners such as stagecoach and UNO to ensure that any new buses moving into the town meet high standards, and that the council works with its partners at the County Council to investigate the setting of an emissions standards for buses, such as the introduction of a Traffic Regulation Order (TRO). This should be a progressive standard which sets an initial benchmark, e.g. initially Euro IV, and possibly Euro V to be achieved with 3-5 years
- 7.1.23 The Borough Council works with stagecoach and UNO to trial Electric and/or alternate fuel vehicles if funding can be secured from central Government.
- 7.1.24 Northampton Borough Council works with Highways, Northamptonshire County Council to review the current road network to determine if there are any changes that can be made to speed up traffic into, out of, and through Northampton town centre.
- 7.1.25 A strong emphasis is placed on the planning system to encourage any new development (where members of the public are able to commute to home, work or retail) to be serviced by public transport. Where feasible this should be secured as a condition of development or by agreement, e.g. use of s106 agreement.

Overview and Scrutiny Committee

- 7.1.26 The Overview and Scrutiny Committee, as part of its monitoring regime, reviews the impact of this report in six months' time.